

CA NetQoS® NetVoyant™

User Guide

Version 7.1, SP2



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Using NetVoyant Reports

NetVoyant, the device performance module of NetQoS Performance Center, provides SNMP-based performance metrics for managing network infrastructure, devices, and services. NetVoyant report pages provide you with a collection of graphs, tables, and other sets of data in one convenient location. You can view the default NetVoyant reports or view custom reports created by NetVoyant administrators and designers.

With full integration into NetQoS Performance Center and the extensive reporting delivered by NetVoyant, you can establish device availability and performance goals and track how well you meet them. With NetQoS Performance Center, you can add NetVoyant as a data source, making NetVoyant views available within the NetQoS Performance Center console. For more information about using NetQoS Performance Center to access NetVoyant reporting views, see the *NetQoS Performance Center Administrator and User Guide*.

The following topics provide basic information about using NetVoyant reports:

- [“Getting Started with NetVoyant Reports” on page 2](#)
- [“Viewing Reports by Task” on page 6](#)
- [“Changing Data Display in Report Pages” on page 7](#)

GETTING STARTED WITH NETVOYANT REPORTS

Contact your NetVoyant administrator to get the correct NetVoyant server name or IP address and your login information. Access the server that hosts NetVoyant by entering the server name or IP address into the address field of your web browser:

```
http://<IPAddress>
```

When NetQoS Performance Center is installed on the same server, this address defaults to the NetQoS Performance Center console. To access NetVoyant, enter the following IP address into the address field of your web browser:

```
http://<IPAddress>/nv
```

The NetVoyant user interface requires Microsoft Internet Explorer version 6 or 7.

You are prompted to log in when you first access the NetVoyant console.

Understanding Reporting Terms

To understand and use NetVoyant reports, become familiar with the following terms and concepts:

Term	Definition
View	A particular graph, table, or set of collected data. The NetVoyant user interface displays a set of views on a page. You can add default views to a report page, edit or copy the individual views on a page, or create custom views and reports.
Report page	A collection of views that can be accessed as a single unit. NetVoyant administrators and designers can select views to add to a shared page, name the page, and save it. The NetVoyant user interface provides standard report pages designed for particular types of users such as operations personnel, executives, and engineers. You can also edit or create custom report pages.
Menu	Report pages are accessible from the menus in the NetVoyant user interface. NetVoyant administrators can designate the menus that are available to each role and the pages that are available from each menu.
Group	NetVoyant administrators can create groups to organize your devices and networks. Groups function similar to a tree file structure, with each group containing subgroups, networks, or devices. You can set the context of a report page by group.

Accessing Report Pages

Menus and report pages are available to you by accessing the Report Pages option from the main menu. Accessibility to menus and report pages is based upon the role assigned to the user.

To learn more about menus, report pages, views, and other reporting concepts, see [“Understanding Reporting Terms”](#) on page 2.

Follow these steps:

1. To access a report page from a menu, click a menu at the top of the reporting interface and choose a page.

This displays the selected report page.

2. To access a report page from a list of available pages, click Report Pages, Report Pages.

This lists all the report pages that are available to you.

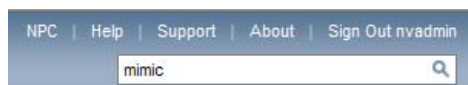
Note: The home icon is displayed next to your current homepage. For more information, see [“Setting Your Homepage”](#) on page 20.

3. Click a page title in the list to display the report page.

Searching for Objects by Name or Address

To find reports relating to a selected item, search for the item by name or IP address. There are two ways to search for an object:

- You can use the Search field in the page header to enter a text string or filter expression and return a page listing all types of objects matching the string or filter.



- You can use the Search interface to select an object type and enter a text string.

Follow these steps:

1. Click Report Pages, Search.

This displays the Search interface.

2. Select the type of object from the Type list.

3. Enter a filter expression.

You can use * as a wild card. For example, while searching for an IP address you can enter 10.0.7* to display only those addresses that start with 10.0.7. For this name filter, the page displays 10.0.7.1, but does not display 10.0.8.1.

4. Click Search.

The page displays a list of items that match the filter expression.

- Under the search results, click a number to display another results page.
- To display more items per page, select a larger Max Per Page from the list.

NetVoyant displays the following information for each item, depending on the type of search that you perform:

Parameter	Search type	Description
Status	Device	Indicates the alarm status of a device. The color of the status indicates what type of alarm is active on the device. A green status indicates that no alarms are present on the device.
Name	Device Interface Poll Instance	The name of a device, interface, or poll instance.
Type	Device	The device class of a device.
Model	Device	The device model of a device.
Description	Device Interface Poll Instance Group	An optional description of a device, interface, poll instance, or group.
ifType	Interface	An interface's type as defined by the <code>ifType</code> field in the SNMP <code>ifEntry</code> table. For example, <code>frame-relay</code> .
ifIndex	Interface	The index for an interface's SNMP <code>ifEntry</code> table.
In Speed	Interface	The interface speed for data entering an interface.
Out Speed	Interface	The interface speed for data exiting an interface.
Address	Address	The IP address of a device or interface.
Interface	Address	The interface that is assigned to an IP address.
Device	Address Poll Instance	The device to which a poll instance or an interface with a selected IP address belongs.
Metrics	Poll Instance	The type of data that a poll instance stores, which corresponds to a NetVoyant dataset.
Path	Group	The tree location of a group, which indicates whether the group is a subgroup of another group.
Members	Group	The number of devices in a group, ignoring devices in subgroups of the group.

Drilling Down to Detailed Views


NetVoyant displays detailed information about the selected device, interface, or group when you click a report or links within a report. You must have drilling permission to use this feature.

For example, clicking on a server in a Top Deviation from Norm - Server CPU Utilization view displays a Server Performance report page.

Clicking a server name...

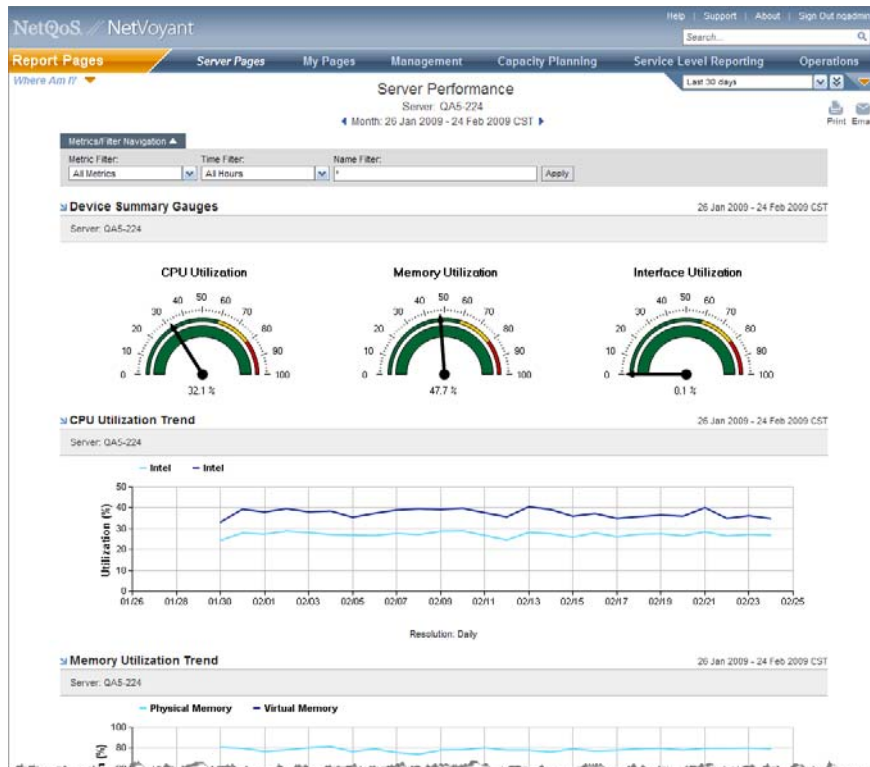
Top CPU Utilization 4 Mar 2008 - 2 Apr 2008 AST

Name	CPU Util Avg	CPU Util 95th Percentile	Num CPUs
qa1-11	14.52%	79.72%	2
ALTSYS	7.39%	66.70%	1
altsys	7.22%	83.33%	1
qa5-224	2.94%	56.37%	2
qa1-13	1.08%	16.43%	2
qa1-16	1.00%	23.57%	2
qa5-223	0.65%	44.04%	2
qa1-14	0.18%	15.63%	2

Click  **ALTSYS**

Search: Show Top: 10

...displays a server report.



VIEWING REPORTS BY TASK

NetVoyant uses five default menus to organize reports. The menus are organized to help you perform NetVoyant tasks more effectively and efficiently.

You can access all of the default menus or change the settings to display only selected menus. The default menus are described in the following table.

Menu	Description	More information
My Pages	The reports in this menu are customized for you and your specific job function.	“Adding Report Pages to My Pages” on page 92
Management	The overview reports in this menu survey views into device and network performance using goal-oriented scorecards and powerful device and segment-type summaries.	“Viewing Management Reports” on page 33
Capacity Planning	The reports in this menu let you make decisions about what devices or segments need an upgrade without having to sort through large amounts of unrelated data. Capacity Planning reports pinpoint the fastest growth, the top changes, and the metrics closest to threshold and let you drill down to more detailed reports on the related devices or interfaces.	“Viewing Reports for Capacity Planning” on page 40
Service Level Reporting	The reports in this menu can help you verify your service level agreements or keep track of which of your metrics have unexpected values. Service Level reports include coverage of your IP SLA operations, VoIP tests, and the worst deviations away from baselines or over thresholds.	“Viewing Service-Level Reports” on page 43
Operations	The reports in this menu provide you with an operations level view of the devices in your network, including those devices that are most unavailable, the interfaces that are most used, and those protocols that are most active on your network (requires an RMON2 probe). You can also view the NetVoyant events or alarms that cause loss of SNMP data.	“Viewing Operations Management Reports” on page 48

Note: Access to NetVoyant capabilities depends on how your NetVoyant administrator has configured your role and permissions. Contact your NetVoyant administrator for information about your account or permissions.

Detailed Reports Underlying the Data

NetVoyant displays detailed information about the selected device, interface, or group when you click a report or links within a report. For more information about these detailed, context-level reports, see [“Viewing Context-Level Reports” on page 52](#).

Creating Custom Views and Reports

NetVoyant report pages are composed of views into your NetVoyant SNMP data. You can edit and create new report pages on the My Pages menu or on shared pages. Create custom views using the Custom View Wizard. For more information, see [“Using the My Pages Menu” on page 92](#).

Sharing Report Information

There are several methods for exporting data from NetVoyant:

- Email report pages directly from the NetVoyant user interface.
- Print report pages to PDF directly from the NetVoyant user interface.
- Export individual views as CSV files that open in Microsoft Excel or another external spreadsheet software program.
- Generate URLs from your views to display device performance statistics on your website or Sharepoint portal.

For more information, see [“Sharing Report Pages and Data” on page 14](#).

CHANGING DATA DISPLAY IN REPORT PAGES

Change the way that NetVoyant presents data in a report page by performing the following tasks:

- Change the period for a report page. For example, you can display reporting data for a selected month or hour. For more information, see [“Changing Time Periods” on page 7](#).
- Change the reporting context for a report page. For example, you can display only reporting data for a selected group or type of device. For more information, see [“Setting the Group Context for a Report Page” on page 9](#).
- Limit the types of data displayed on a report page by data type or object name. For example you can display only device availability data on a report page or only data related to devices that have a name that starts with “10.0.” For more information, see [“Limiting the Types of Data Displayed on a Report Page” on page 9](#) and [“Filtering the Data Displayed in a Table View” on page 11](#).

Changing Time Periods

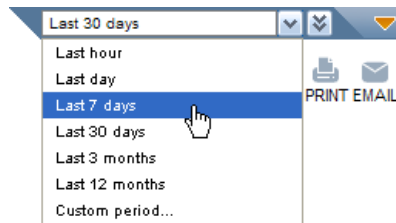
When you are viewing report pages, you can change the period for the displayed data. For example, you view data for the past day in a report and you notice an issue. You can change the time frame to the past seven days to determine whether the issue occurs on a daily basis.

You can also use time filters to display data using time filtered rollups. These time filters are set up by your NetVoyant administrator so that NetVoyant aggregates data according to hours of operation or other useful day and time selections.

Note: Each user account has a time zone assigned, which determines how reports label data with time for that user. For example, a user has a time zone of Central Standard Time (CST) instead of the default of Universal Coordinated Time (UTC). The user views a report with data for 8:00 AM to 9:00 AM, NetVoyant displays data for 8:00 AM to 9:00 AM CST. A NetVoyant administrator can modify this setting for the user account. For more information, see [“Adding or Editing a NetVoyant User” on page 131](#).

Follow these steps:

1. Click the period menu in the upper-right corner of the reporting interface.



The page displays data from the selected period in the views on the report page.

Setting Custom Time Periods

You can change periods while viewing report pages. You can also set the following custom periods:

- A specific hour
- A specific day
- A unique week period by specifying a day within a Saturday to Sunday 7-day period
- A unique month period by selecting the month name and year
- A unique quarter period by selecting the quarter number and year
- A unique year period by selecting the year

Note: For pages displaying poll instance details within a drill-in context, you can specify a start date and stop date. All other pages use calculated rollups over a predefined calendar period (such day, week, month, and quarter) and cannot display periods with arbitrary start or stop dates.

Follow these steps:

1. Open a report page.
2. In the upper-right corner of the reporting interface, click the down icon ().

The Custom Time Period dialog opens.

3. Select the Time Period from the list.

For example, select day to view a specific day.

4. Define the desired period.

For example, if you select month as the period, select the month and year.

5. Click OK.

NetVoyant applies the custom period to the report page.

Note: When you set a custom period and then select another period, the new period is applied. The custom period is not saved.

Setting the Group Context for a Report Page

When you view report pages, you can change the context for the displayed data. For example, when you view the Management Scorecard report for your overall network, you can change the context to display only the views that relate to a group that you created for your central office.

When you set the group context for a report page, NetVoyant applies the same group context to other report pages that you view during your current NetVoyant session.

 Group: /Devices/Routers

To reset the context to all devices and networks, select the NetVoyant server name from the Group list.

Note: You cannot change the context on some report pages.

Follow these steps:

1. View a report page.

For more information, see [“Accessing Report Pages” on page 3](#).

2. Click the yellow arrow symbol () next to Group Filter at the top of the report page and select Change Group.

The Select Group dialog opens and displays an expandable list of all groups, networks, and custom groups.

3. Click a group or network to select the context for the report page.
4. Click OK.

The dialog closes and the report page refreshes to display only those views and report data that apply to the selected group or network.

Note: When you select a network as the context for a report page, the network is added to your context quick list for your current NetVoyant session.

Limiting the Types of Data Displayed on a Report Page

When you view report pages, you can change the data that NetVoyant displays on a page. For example, when you view the Top Projections report for your overall network, you can display only views related to device availability metrics for devices with names that start with 10.0.1.

Note: You cannot change the metrics or apply name filters on some report pages.

Follow these steps:

1. Change the data displayed on a report page:

- a. View a report page.

For more information, see [“Accessing Report Pages” on page 3](#).

- b. From the Metric Filter list, select the type of data you want to display.

Datasets are displayed in the list. When you select a metric in the list, it refreshes the report page to display only the types of data defined in the selected dataset.

Note: Your NetVoyant administrator can add and configure the available datasets to configure the metrics that you can select for report pages. For more information, see the *NetVoyant Administrator Guide*.

- c. When you limit the metrics displayed on a report page, NetVoyant also limits the metrics displayed on other report pages that you view during your current NetVoyant session. To reset the metrics displayed, select All Metrics from the list.
2. Use a name filter to limit the items displayed on a report page:
 - a. View a report page.
For more information, see [“Accessing Report Pages” on page 3](#).
 - b. Enter a Name Filter to limit the devices, interfaces, or poll instances displayed on the report page.
You can use * as a wildcard. For example, you can enter **10.0.1*** to display only those items that have a name that begins with 10.0.1. For this name filter, the list displays 10.0.1.1, but does not display 10.0.8.1.
 - c. Click Apply to apply the name filter.
The report page displays only those items with names that match the name filter.

Including More Data in a View

The number of report items that NetVoyant displays is configurable in many types of views on the report pages.

When you view a Management Scorecard for the overall network, the view displays ten items. However, you can display up to 200 items at a time and flip through multiple “pages” of items.

Note: A NetVoyant administrator can configure the number of items that NetVoyant shows in all views. For more information, see [“Configuring Global Settings” on page 127](#).

Follow these steps:

1. View a report page that contains the view.
For more information, see [“Accessing Report Pages” on page 3](#).
2. To view more items per page, from the Max Per Page list, select the number of items to display on a page.
This displays the selected number of items in the view.
3. To view another page of data, click the page number.
This displays the selected page.

Sorting Data in a Table View

In a table-style report view, items can be sorted according to the columns in the table in ascending or descending order. You can change the sort order from ascending to descending, or vice-versa. Or, you can change the column used for sorting the table.

Follow these steps:

1. View a report page that contains the table view.

For more information, see [“Accessing Report Pages” on page 3](#).

The column that is used for sorting the data has a an up or down arrow icon to indicate the sort order.

2. Click the sort arrow next to a column name to change the sort order.



Filtering the Data Displayed in a Table View

You can limit the report items that NetVoyant displays in a table-style report view. For example, the Top Projections - Latency view displays the top ten devices with the highest latency. You can filter the view to view the top ten devices that have names starting with 10.0.7.

For more information about view styles such as the table style, see [“NetVoyant View Styles” on page 109](#).

Follow these steps:

1. View a report page that contains a table view.

For more information, see [“Accessing Report Pages” on page 3](#).

2. At the bottom-left corner of the table, enter a filter expression to use on the first column of data.

You can use * as a wildcard. For example, you can enter nq* to display only those items that begin with nq. Using this name filter, the page displays nqfs, but does not display nvfs.



3. Click Filter.

The table displays only those report items that match the filter expression.

Closest to Threshold - Device Memory Utilization					12 Nov 2008 - 11 Feb 2009 CST
Name	Metric	Average	Threshold	Days to Threshold ▲	
QA1-16 - C:\Label: Serial Number 8c1510b6	Percent Used	94.27%	95.00%	62	<div><div></div></div>
QA1-14 - Physical Memory	Percent Used	44.67%	95.00%	254	<div><div></div></div>
QA1-13 - Physical Memory	Percent Used	25.68%	95.00%	288	<div><div></div></div>
<input type="text" value="QA*"/>					Show Top: 10 ▼

Sharing NetVoyant Reporting Information

NetVoyant provides multiple methods for sharing report pages, views, and data with co-workers or others interested in the information. This information can be shared using a number of different methods:

- **Emailing** a report page or scheduling NetVoyant to email an up-to-date report page at regular intervals.
- **Saving a report page to a printable format** using the Portable Document Format (PDF) file.
- **Exporting a view to a Comma Separated Value (CSV) file**, which you can open in Microsoft Excel or another external spreadsheet software program.
- **Generating a URL from a view** to display on your website or SharePoint portal.
- **Exporting the SQL commands for a view**, which your NetVoyant administrator can use to restore a view to the NetVoyant database.

The methods available for sharing NetVoyant reports depend on how your NetVoyant administrator has configured your user account. Contact your NetVoyant administrator for information about your account or permissions.

The following topics provide information about sharing information from NetVoyant reports:

- [“Sharing Report Pages and Data” on page 14](#)
- [“Exporting and Generating Views” on page 16](#)

SHARING REPORT PAGES AND DATA

There are several methods for exporting data from NetVoyant. This allows you to share the information with managers, coworkers, and others who may not have access.

- Email report pages directly from the NetVoyant reporting tool.
- Print report pages to PDF directly from the NetVoyant reporting tool.
- Export individual views as CSV files that open in Microsoft Excel or another external spreadsheet software program.
- Generate URLs from your views to display device performance statistics on your website or Sharepoint portal.

Emailing Report Pages

Email report pages to share information displayed in NetVoyant reports. For example, email a Server Summary report from the past month to your manager to show what your team experiences.

Important: A NetVoyant administrator must configure an SMTP server for NetVoyant before you can email report pages. For more information, see [“Adding an SMTP Server”](#) on page 124.

Follow these steps:

1. View the report page.
2. Click the Email icon at the top-right corner of the report page.

The Email Page dialog opens.

3. Enter the following information:

Parameter	Description
Send To	Enter the email address to which you want to send the report page. Separate multiple email addresses with commas.
Subject	Enter the subject line for the email.
Message	Enter a message to explain the report or the purpose of the email.
Time Zone	The time zone used for generating the report data.
Archive Email	Select this check box to save a copy of the generated report PDF to a database. This does not archive the email message or recipient information.

Parameter	Description
Scheduling Options	<p>Select one of the following options:</p> <ul style="list-style-type: none"> • Send Now - Select this option to send the email immediately. • Send on a Schedule - Select this option to schedule the email message to be sent each day, week, month, quarter, or year. <p>If you select Send on a Schedule, select one of the following options:</p> <ul style="list-style-type: none"> • Send Daily - Select which days of the week to send the email. • Send Weekly - Select which day to send the email. • Send Monthly - Sends the email on the last day of the month. • Send Quarterly - Select the month that designates the end of the first quarter to send the email. NetVoyant sends the email on the last day of each quarter. • Send Yearly - Select the last month of the year. NetVoyant sends the email on the last day of the year. <p>Note: Scheduled emails generate the PDF using a stored URL address. Filters or custom sorting that is applied to the views on the current report page is not applied to a report page in the scheduled email. When a filter is applied to the entire page, this filter applies to the page sent in the scheduled email. You can also create custom views or edit existing views by applying ORDER BY and WHERE clauses to the SQL statement.</p>

4. Click OK.

- If you selected Send Now, NetVoyant sends the email with the current report page attached as a PDF file.
- If you selected Send on a Schedule, NetVoyant configures the email schedule.

Note: You can view, edit, or delete email schedules that you configure from the Administration section of the NetVoyant user interface. For more information, see [“Viewing, Editing, or Deleting an Email Schedule”](#) on page 125.

Printing Report Pages

Print report pages to a PDF file to share information displayed in NetVoyant reports. For example, print Capacity Planning reports and show them to the Director of IT to illustrate that your team requires more resources. NetVoyant generates a PDF for the report page, which can then be printed from a PDF viewer.

Follow these steps:

1. View the report page.
2. Click the Print icon at the top-right corner of the report page.

NetVoyant generates a printable version of the report in a new browser window. This is a PDF file that can be viewed in Internet Explorer and printed.

3. In the browser toolbar, click the Printer icon.

Your browser displays a Print dialog. Use this to select a printer and set other printing options.

4. Click OK to print the PDF file.

EXPORTING AND GENERATING VIEWS

NetVoyant provides multiple ways to extract the information displayed in the reports and include it in other applications or web views.

Exporting a View to a CSV File

Report pages with table views can be exported to a Comma-Separated Value (CSV) file. The CSV can be opened in Microsoft Excel or another external spreadsheet software program. This allows you to manipulate, sort and format the data for presentations.

Follow these steps:

1. View a report page that contains the table view.
2. Click the blue arrow at the top-left corner of the view and select Export to CSV.
3. In the File Download dialog, perform one of the following tasks:
 - Click Open to display the view in tabular format in Microsoft Excel.
 - Click Save to save the view as a CSV file.

Generating a URL for a View

Generating a URL for the view allows you to display a view outside of the NetVoyant user interface. When a URL is generated for a view, it provides a URL and an HTML code snippet that is used to display the view in an in-line Frame (iFrame) on a web page. A URL can be generated for an accessible view in NetVoyant.

Note: You can generate a URL for a view only when a NetVoyant administrator grants you permission to export views. Contact your NetVoyant administrator for information about your account or permissions.

Follow these steps:

1. View a report page that contains the view.
2. Click the blue arrow at the top-left corner of the view and select Generate URL.
The Generate URL dialog opens.
3. You can edit the following parameters for the generated URL:

Parameter	Description
URL	This text box is automatically populated with the current URL information.

Parameter	Description
Display Options	Set the display options as follows: <ul style="list-style-type: none"> • Select View Container to display the chart or graph with the surrounding container including the title bar. • Select Drill Down to enable users to drill down into the underlying NetVoyant product for more detailed data. For more information, see “Drilling Down to Detailed Views” on page 5.
End Time	Select the ending time for the view to display data. The view does not display data that collected after the End Time. Select one of the following: <ul style="list-style-type: none"> • Select Current Time when you want the view to use the current time as its end time. • Select End Time On and enter the date and time in the specified format (M/d/yyyy H:m:s).
Time Span	Select the period for the view. For example, select Monthly to display data from an entire month.
Token Expiration	Select when you want the NetVoyant security token for the view to expire. You can select one of the following: <ul style="list-style-type: none"> • Select Never Expires when you want the exported view to display indefinitely. • Select Expires in and enter a number of days after which you want the view to expire. • Select Expires On and enter a date and time in the specified format (M/d/yyyy H:m:s) when you want the view to expire at a specified date and time.

4. Click Update URL to update the URL according to your settings.
5. Copy the URL displayed at the top of the dialog.
6. (Optional) To view a preview of the URL or to copy the HTML code snippet, click View Preview.
Click OK when you are done previewing the URL.
7. Click OK to close the dialog.

Exporting the SQL Queries for a View

You can export the SQL queries for a view to a text file, which can be saved and imported into the NetVoyant database by an administrator. Saving the SQL definitions of views can be used as a method to back up custom views.

Note: You can export a view to SQL queries only when a NetVoyant administrator grants your user account the ability to export views. Contact your NetVoyant administrator for information about your account or permissions.

Follow these steps:

1. View a report page that contains the view.
2. Click the blue arrow at the top-left corner of the view and select View Definition.



A series of SQL INSERT statements displays in a browser pop-up window. A NetVoyant administrator can import these commands into the NetVoyant database.

3. Select all of the text in the browser window and press CTRL+C to copy it to your clipboard.
4. Open a text file and press CTRL+V to paste the contents into the text file.
5. You can save the text file and share the view definition with your NetVoyant administrator.

Customizing the NetVoyant User Interface

NetVoyant installs with a number of pre-built reports organized into menus according to their typical usage in a Network Operations Center. Many organizations and users want to customize the menu organization and the reports that are available to accommodate their own workflows and areas of responsibility. There are multiple methods for customizing the NetVoyant user interface to suit your needs.

This chapter covers the following topics:

- “Working with Homepages and Menus” on page 20
- “Editing Reports” on page 21
- “Working with Views” on page 25

WORKING WITH HOMEPAGES AND MENUS

NetVoyant installs with standard menus and reports that display the most commonly needed views grouped according to standard roles and areas of responsibility in an enterprise network operations center.

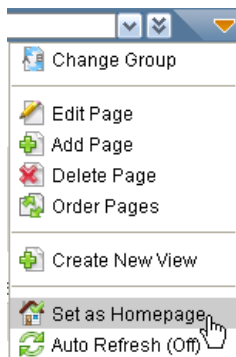
NetVoyant provides a web interface for customizing the available menus and the listed reports, allowing for easy navigation to the information that is most useful to you. Every user has an individual homepage, that can be set to display one of the standard reports or a custom report. Change your homepage and customize menus so that they provide easy access to the information that you want to see quickly.

Setting Your Homepage

Your homepage is the first page that displays when you log in to NetVoyant. You can change your homepage to a report page that you can access, including a custom report page in the My Pages menu.

Follow these steps:

1. View the report page that you want to set as your homepage.
2. Click the orange arrow and select Set as Homepage.



3. Click OK.

This sets the current report page as your homepage.

Accessing Your Homepage

Your homepage is the first page that displays when you log in to NetVoyant. To access your homepage, click Report Pages, Homepage.

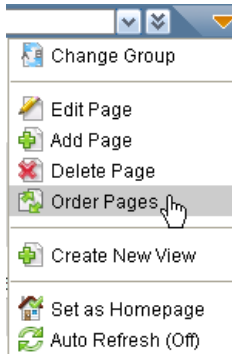
Reordering the Report Pages in a Menu

The order in which report pages are displayed in the My Pages menu can be customized.

Note: When you have *Edit Shared Views* permissions, you can also move report pages on shared menus. Contact your NetVoyant administrator for information about your account or permissions.

Follow these steps:

1. Select a report page in the menu that you want to reorder.
For more information, see [“Accessing Report Pages” on page 3](#).
2. Click the orange arrow and select Order Pages.



This displays the Edit Page Order page.

3. To move a report page, select it in the list and click the up or down arrows.
4. Click Save.

EDITING REPORTS

Report pages are customizable so that you can display the information you need. You can copy a view from one report page to another, remove a view, edit the views that appear on the report page, and apply filters.

Copying a View

Copy a view to a report page in the My Pages menu to create custom report pages. This is a quick and easy way to create a report from views that are already defined.

Note: When you have *Edit Shared Views* permissions, you can also copy views to report pages on shared menus. Contact your NetVoyant administrator for information about your account or permissions.

Follow these steps:

1. View a report page that contains the view you want to copy.
For more information, see [“Accessing Report Pages” on page 3](#).
2. Click the blue arrow at the top-left corner of the view and select Copy to.
The Copy view to another page dialog opens.
3. From the Select Menu list, select the menu that contains the report page to which you want to copy the view.
4. From the Select Page list, select the page to which you want to copy the view.
5. Select where on the report page you want the view to display.

6. Click Add.

This copies the view to the selected report page.

Removing a View from a Report Page

You can remove a view from a report page.

Note: When you have *Edit Shared Views* permissions, you can also remove views to report pages on shared menus. Contact your NetVoyant administrator for information about your account or permissions.

Note: NetVoyant deletes custom settings for the view when it is removed from the report page.

Follow these steps:

1. View a report page that contains the view you want to remove.
For more information, see [“Accessing Report Pages” on page 3](#).
2. Click the blue arrow at the top-left corner of the view and select Remove.
The Remove Widget From Page dialog opens.
3. Click OK to confirm.
This removes the view from the page.

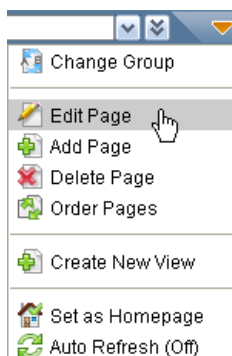
Editing the Contents in a Report Page

You can add views to report pages or move them to a new location on the report pages.

Note: When you have *Edit Shared Views* permissions, you can add and move views on report pages on shared menus. Contact your NetVoyant administrator for information about your account or permissions.

Follow these steps:

1. Select the report page that you want to edit.
For more information, see [“Accessing Report Pages” on page 3](#).
2. Click the orange arrow and select Edit Page.



This opens the Edit Page Layout page.

3. At the top of the page, you can edit the following items for the report:

Parameter	Description
Menu Title	Edit the title for the report as it is displayed in the menu bar.
Page Title	Edit the title displayed at the top of the report page.

4. In the main body of the Edit Page Layout page you can perform the following actions:

Task	Description
Add a view	To add a view to the report page, select a context to display the views related to that context. For example, select IP SLA to display all IP SLA views that are available for the current context. Note: Select the Custom Views grouping to view all custom views available to you. Click a view in the list and drag it to a section on the right side of the page.
Remove a view	To remove a view from the report page, click Remove next to a view. NetVoyant deletes custom settings when it removes the view from the report page.
Move a view	To move a view on the report page, click a view in the list and drag it to a different page layout section on the right side of the page.

5. Click **Save** to save your edits.

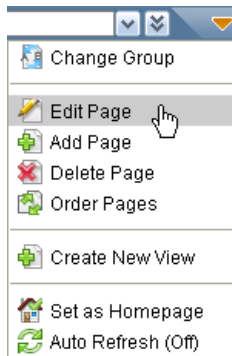
Adding Group Navigation or Filters to a Report Page

You can add group navigation and filters to a custom report page by adding navigation views to the top of the report page. These navigation views let you:

- Change the context for the displayed data on a report page to a selected network or group. For more information, see [“Setting the Group Context for a Report Page” on page 9](#).
- Filter the report data on a report page to a selected type of data. For more information, see [“Filtering the Data Displayed in a Table View” on page 11](#).
- Filter the report data on a report page to only those objects that have a name that matches a filter expression. For more information, see [“Filtering the Data Displayed in a Table View” on page 11](#).

Follow these steps:

1. Select the report page that you want to edit.
For more information, see [“Accessing Report Pages” on page 3](#).
2. Click the orange arrow and select Edit Page.



This opens the Edit Page Layout page.

3. On the left side of the Edit Page Layout page, select the Navigation category to display the navigation bar views.
4. Click a view in the list and drag it to the top of the report page layout on the right side of the Edit Page Layout interface.

The following views are available:

View	Description
Group Navigation	Inserts the Group and Time Filter lists at the top of the report page that let you: <ul style="list-style-type: none"> • Change the context for the displayed data on a report page to a selected network or group. • Filter the report data on the report page to a selected time filter.
Group/IP SLA Navigation	Inserts the Group, Time Filter, and IP SLA Operation Types lists at the top of the report page that let you: <ul style="list-style-type: none"> • Change the context for the displayed data on a report page to a selected network or group. • Filter the report data on the report page to a selected time filter. • Filter the report data on the report page to only those IP SLA operations.
Group/Metrics/Filter Navigation	Inserts the Group, Time Filter, and IP SLA Operation Types, and Name Filter lists at the top of the report page that let you: <ul style="list-style-type: none"> • Change the context for the displayed data on a report page to a selected network or group. • Filter the report data on the report page to a selected time filter. • Filter the report data on the report page to a selected type of data. • Filter the report data on the report page to only those objects that have a name that matches a filter expression.
Metrics/Filter Navigation	Inserts the Time Filter, Metric Filter, and Name Filter lists at the top of the report page that let you: <ul style="list-style-type: none"> • Filter the report data on the report page to a selected time filter. • Filter the report data on the report page to a selected type of data. • Filter the report data on the report page to only those objects that have a name that matches a filter expression.

5. Click Save to save your edits.

Deleting a Report Page

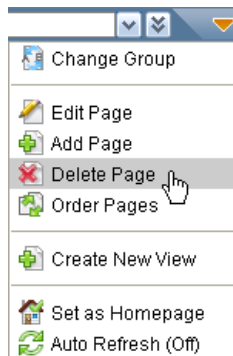
Report pages displayed in the My Pages menu can be deleted.

Note: When you have *Edit Shared Views* permissions, you can delete report pages on shared menus. Contact your NetVoyant administrator for information about your account or permissions.

Warning: Before deleting report pages, contact your NetVoyant administrator to make sure the database is backed up. A deleted report page can be recovered only from a database backup.

Follow these steps:

1. Select the report page you want to delete.
For more information, see [“Accessing Report Pages” on page 3](#).
2. Click the orange arrow and select Delete Page.



This displays the Delete Current Page page.

3. Click OK to confirm.

Note: NetVoyant deletes custom settings when it removes the page.

WORKING WITH VIEWS

Each view on a report page is a dynamically generated display of data. The view reflects the most recent data stored in the NetVoyant database when the page was loaded or last refreshed.

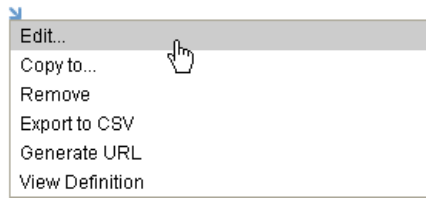
Editing a View

To further customize the pages added to your My Pages menu, edit the views on these report pages. When you have *Edit Shared Views* permissions, you can edit the views on report pages on shared menus. Contact your NetVoyant administrator for information about your account or permissions.

Note: There are types of default views that cannot be edited.


Follow these steps:

1. View a report page that contains the view that needs to be edited.
For more information, see [“Accessing Report Pages” on page 3](#).
2. Click the blue arrow at the top-left corner of the view and select Edit.



The Custom View Wizard opens with the settings for the selected view populated. The Choose Name and Type page is the first page in the Custom View Wizard.

3. Edit the following parameters:

Parameter	Description
View Name	Edit the name of the view. NetVoyant uses this name as the view title on report pages.
View Description	<i>(Optional)</i> Edit the description of the view.
View Category	<p>Select the View Category for the report view, which lets you select similar views when editing a report page.</p> <ul style="list-style-type: none"> • To select an existing View Category, click . • To enter a new category, enter the View Category.

4. *(Optional)* To reset a view to the default settings, click Revert to Default.
5. Click Next.

This opens the Style and Options page.

6. You can edit the following parameters on this page:

Parameter	View style	Description
Style	All	<p>Select the style of the view, which defines how NetVoyant displays report data in the view.</p> <p>For more information, see “NetVoyant View Styles” on page 109.</p>
Graph Settings	Charts	<p>Configure how NetVoyant labels and scales the axes on a graph-style view.</p> <p>For more information, see “Editing Axis Titles and Ranges on a Graph View” on page 111.</p>
Thresholds	Selected views only	<p>Edit the thresholds on some views, which configures the values for which NetVoyant displays status colors.</p> <p>For more information, see “Editing the Thresholds for a View” on page 112.</p>
Drill-down	All	<p>Specify an existing report page to use as a drill-down page. Each report page has a pg setting in its URL that indicates its page number or ID. For example pg=7001 or pg=classmap. Use the value for that key as the drill-down value here.</p>
Footer	Selected views only	<p>Add a footer to many views, which can add extra information to the view.</p> <p>For more information, see “Adding Other Elements to Customize Views” on page 120.</p>

7. Click Next.

This displays the Metrics page. You cannot edit settings on this page for existing views.

8. Click Next.

This opens the Data Expressions and Settings page.

9. You can edit the following parameters:

Parameter	View types	Description
Expression(s)	All	Select the expressions for which you want the view to display data.
Distribution Ranges	Distribution	Add, edit, or remove the ranges used for a distribution table or graph. These distribution ranges determine how the data is grouped in the view.
Limit (top-n)	Top-N tables and charts	Enter the number of poll instances you want NetVoyant to display in the Top-N view.
Scorecard Target	Scorecards	Edit the target used for a Scorecard view to determine what values are seen as acceptable for the data.
Where	Top-N tables Pie chart tables	Use this field to limit the items shown in the view by a defined set of criteria. This must follow the syntax of an SQL query clause. For assistance with this advanced reporting feature, contact CA Technical Support.
Group By	Top-N tables Pie chart tables	<p>When you use aggregations for the expressions in the view, use this field to group items in a report by a specified property or field name. This can be a NetVoyant property or field name preceded by a \$ sign.</p> <p>For example, \$ProtocolName can be used to group protocol data that have the same name into the same section in a Protocol pie chart.</p>
Order By	Top-N tables	Select the expression by which NetVoyant sorts data in a Top-N table view to determine what data the view emphasizes.
Show Projection	Group Summary	<p>Select whether to add a projection line to a Group Summary view. Projection lines indicate the direction your data is taking over a period of time and can help you predict future performance based on the trending of available data.</p> <p>NetVoyant calculates the projection line from baseline values from your data.</p>
Show Baseline and Projection	Trend	<p>Select whether to show a projection line or hourly baselines on a Trend view. When you display them, hourly baselines (for hourly and daily data) or a projection line (weekly or longer data) displays on the view, depending on the period selected for the report page.</p> <p>Hourly baselines display normal ranges of values during a selected period and can help you identify abnormal values ignoring differences based on time of day.</p> <p>Projection lines indicate the direction that your data is taking over a period of time and can help you predict future performance based on the trending of available data.</p> <p>NetVoyant calculates the projection line from baseline values from your data.</p>

10. Click Next.

NetVoyant displays the Summary/Save page.

11. Review the settings for the view. You can click Back to return to a previous page and make corrections.**12.** At the bottom of the page, select where you want to Apply Changes To.

You can select one of the following options:

Option	Description
View Location for My User Account	Applies the changes to that view location (category) for your user account only.
View Location for All Users	Applies the changes to that view location (category) for all user accounts.
Default For All Users	Applies the changes for all user accounts.
My Current Session	Applies the changes for your user account only for the current session. When you log out, NetVoyant removes the changes.

13. Click Save.

This saves your changes to the view.

14. Click Close to close the Custom View Wizard.

This refreshes the report page and applies your changes to the view.

Note: You can revert a view to the default settings to remove your changes to the view. For more information, see [“Reverting a View to the Default Settings” on page 30](#).

Editing an IP SLA View

Most IP SLA views cannot be edited. For those IP SLA views that can be edited, you can apply an operation filter to the view. For more information, see [“IP SLA Views” on page 344](#).

An operation filter limits the IP SLA operations on which a selected view reports.

Follow these steps:**1.** Click the blue and white arrow at the top-left corner of the view and select Edit.

This opens an edit dialog.

2. Select the operation filter from the Select Operation Filter list.

3. Select where you want to Apply Changes To from the following options:

Option	Description
View Location for My User Account	If you are an administrator, designer, or a user with <i>Save Edits</i> permissions, use this setting to save changes to the view only for the current user account, when the view is displayed on the current page, and in its current location on the page (top, left, right, bottom, and the order number). Using this setting you include more than one version of the same view on the page.
View Location for All Users	If you are an administrator or designer, use this setting to save changes to the view for all user accounts, when the view is displayed on the current page, and in its current location on the page (top, left, right, bottom, and the order number). Using this setting lets you include more than one version of the same view on the page.
Default For All Users	If you are an administrator or designer, use this setting to apply the changes for all user accounts and for all locations. However, when a view was changed from the default for a specific location, the location-specific edits override these changes.
My Current Session	All users with <i>Edit</i> permissions can use this setting to save the changes for that user account and only for the current session. When you log out, NetVoyant removes the changes.

4. *(Optional)* To remove an operation filter, click Use Defaults.

When you remove an operation filter, the page displays all relevant IP SLA operations in the view.

5. Click OK.

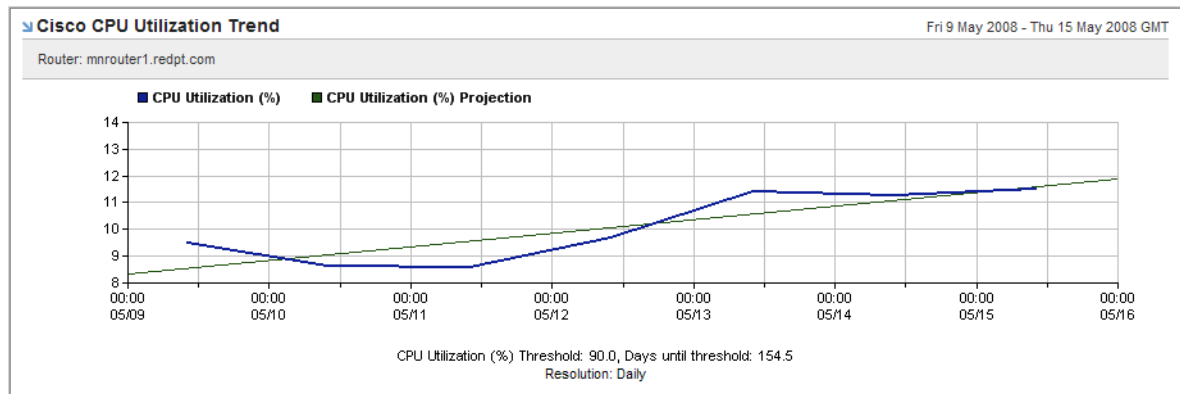
This refreshes the report page and applies your changes to the view.

Changing the Resolution in a Trend Graph

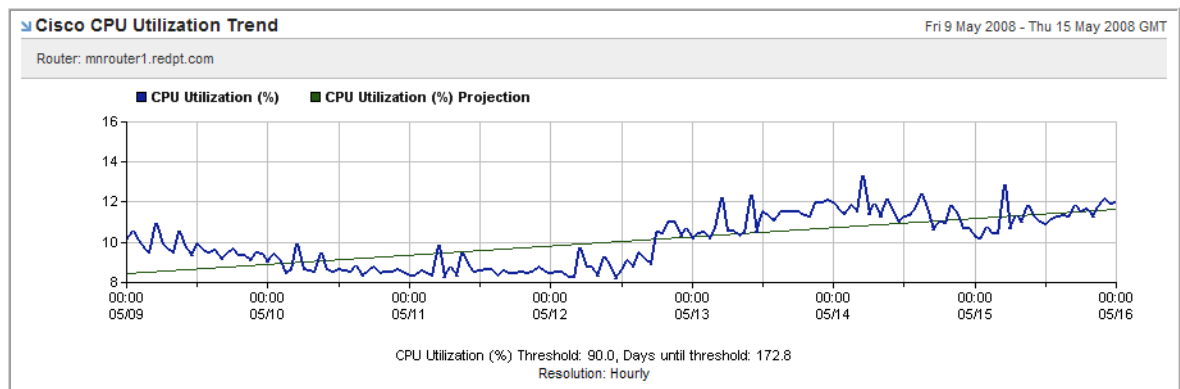
The resolution for a graph view indicates the time interval used to plot data points on a trend graph. NetVoyant determines the resolution for a trend graph based on the following factors:

- The *polling rate* for the dataset. The polling rate determines how often NetVoyant collects data from your devices.
- The *data retention and rollup settings* for the poll group for the related dataset. Data retention and rollup settings determine how often polling data is rolled up into optimized collections of data with a lower resolution.
- The *period* displayed for the report page. To optimize reporting, NetVoyant displays data differently based on the period that you select for the report page.

Trend graph with a resolution of one day



Trend graph with a resolution of one hour



Follow these steps:

1. Click the blue and white arrow at the top-left corner of the view and select **Change Resolution**. This opens an edit dialog.
2. Select the resolution level from the **Select Resolution** list.
3. When the trend graph view is one of your custom views, you can use the **Apply Changes To** option to apply the resolution setting to the current session or to the saved view settings.
4. Click **OK**.

Reverting a View to the Default Settings

You can restore a view to the original default settings.

Follow these steps:

1. Open the view for editing.
For more information, see [“Editing a View” on page 25](#).
2. On the **Name and Type** page, click **Revert to Default**.
This refreshes the report page and resets the settings for the view to the defaults.

Viewing Standard Report Pages

NetVoyant provides multiple methods for customizing the NetVoyant user interface to suit your needs. It organizes reports into six categories that help you perform tasks effectively and efficiently.

Note: Report page access is controlled according to roles and permissions assigned by your NetVoyant administrator. Contact your NetVoyant administrator for information about your account or permissions.

The following topics provide information about standard NetVoyant reports:

- “Viewing Standard Report Pages” on page 32
- “Viewing Management Reports” on page 33
- “Viewing Reports for Capacity Planning” on page 40
- “Viewing Service-Level Reports” on page 43
- “Viewing Operations Management Reports” on page 48
- “Viewing Context-Level Reports” on page 52

VIEWING STANDARD REPORT PAGES

You can access the following types of standard (pre-built) reports:

Report type	Description	More information
My Pages	The reports in this menu are customizable for you and your specific job function.	“Adding Report Pages to My Pages” on page 92
Management	The reports in this menu provide an overview into your device and network performance using goal-oriented scorecards and powerful device and segment-type summaries.	“Viewing Management Reports” on page 33
Capacity Planning	The reports in this menu let you make decisions about what devices or segments need an upgrade without having to sort through large amounts of unrelated data. Capacity Planning reports pinpoint the fastest growth, the top changes, and the metrics closest to threshold and let you drill down to more detailed reports on the related devices or interfaces.	“Viewing Reports for Capacity Planning” on page 40
Service Level Reporting	The reports in this menu can help you verify your service level agreements or keep track of which of your metrics have unexpected values. Service Level reports include coverage of your IP SLA operations, VoIP tests, and the worst deviations away from baselines or over thresholds.	“Viewing Service-Level Reports” on page 43
Operations	The reports in this menu provide you with an operations-level view of the devices in your network, including those devices that are most unavailable, the interfaces that are most used, and those protocols that are most active on your network (requires an RMON2 probe). You can also view all NetVoyant events or alarms that cause loss of SNMP data.	“Viewing Operations Management Reports” on page 48
Context-Level Reports	You can access detailed information related to most reports by clicking links in a report or on a report itself. NetVoyant automatically displays more information about a device, interface, or group.	“Viewing Context-Level Reports” on page 52

Note: Access to NetVoyant reporting tool capabilities depends on how your NetVoyant administrator has configured your role and permissions. Contact a NetVoyant administrator for information about your account or permissions.

VIEWING MANAGEMENT REPORTS

These overview reports provide survey views into your device and network performance using goal-oriented scorecards and powerful device and segment-type summaries.

The following are the Management-level reports available in NetVoyant:

Report	Enables you to...	More information
Scorecards	Quickly identify the location and severity of critical issues across multiple reporting groups or networks.	“Scorecards Report” on page 34
Management Summary	Assess the overall health of a selected group of devices.	“Management Summary Report” on page 34
Management Group Comparison	Compare performance across geographic regions, device types, or other groups that a NetVoyant administrator has configured for your network.	“Management Group Comparison Report” on page 35
Router Summary	Assess the overall health of a selected group of routers.	“Router Summary Report” on page 35
Router Group Comparison	Compare router performance across geographic regions or other groups that a NetVoyant administrator has configured for your network.	“Router Group Comparison Report” on page 36
Server Summary	Assess the overall health of a selected group of servers.	“Server Summary Report” on page 36
Server Group Comparison	Compare server performance across geographic regions or other groups that a NetVoyant administrator has configured for your network.	“Server Group Comparison Report” on page 37
Frame Relay Summary	Assess the overall health of a selected group of frame-relay circuits.	“Frame Relay Summary Report” on page 37
Frame Relay Group Comparison	Compare frame-relay performance across geographic regions or other groups that a NetVoyant administrator has configured for your network.	“Frame Relay Group Comparison Report” on page 38
WAN Summary	Assess the overall health of a selected group of WAN interfaces.	“WAN Summary Report” on page 38
WAN Group Comparison	Compare WAN performance across geographic regions or other groups that a NetVoyant administrator has configured for your network.	“WAN Group Comparison Report” on page 39
LAN Summary	Assess the overall health of a selected group of LAN interfaces.	“LAN Summary Report” on page 39

Report	Enables you to...	More information
LAN Group Comparison	Compare LAN performance across geographic regions or other groups that a NetVoyant administrator has configured for your network.	“LAN Group Comparison Report” on page 40

Scorecards Report

The Scorecards report displays a management overview of device performance in a reporting group. The report is made up of management scorecard views, which grade average values for a metric based on a configurable goal range and let you identify the location and severity of critical issues across multiple reporting groups or networks.

See the following entries to view more information about the views displayed on this report:

- [“Availability Scorecard” on page 210](#)
- [“Reachability Scorecard” on page 235](#)
- [“95th Percentile Utilization Scorecard” on page 298](#)
- [“Interface Availability Scorecard” on page 314](#)
- [“IP SLA Availability Scorecard” on page 362](#)
- [“IP SLA Over-Threshold Scorecard” on page 365](#)
- [“95th Percentile Device CPU Utilization Scorecard” on page 206](#)
- [“95th Percentile Cisco CPU Utilization Scorecard” on page 400](#)
- [“95th Percentile Frame Relay Utilization Scorecard” on page 268](#)

Follow these steps:

1. From the menu bar, click Management.
2. Select Scorecards.

Management Summary Report

The Management Summary report displays a graphical management overview of device performance in a reporting group. The report is made up of Distribution views, which aggregate values for selected metrics for all devices within a selected group and let you assess the overall health of a selected group of devices.

See the following entries to view more information about the views displayed on this report:

- [“Availability Distribution \(Count/Percentage\)” on page 208](#)
- [“Average Availability” on page 212](#)
- [“Utilization Distribution” on page 339](#)
- [“Total In/Out Volume” on page 336](#)
- [“Avg Utilization In vs. 95th Percentile” on page 302](#)
- [“Avg Utilization Out vs. 95th Percentile” on page 302](#)

Follow these steps:

1. From the menu bar, click Management.
2. Select Summary.

Management Group Comparison Report

The Management Group Comparison report compares device performance among multiple subgroups of a selected reporting group. The report is made up of Group Comparison views, which compare aggregated values for a metric for devices across multiple subgroups. It lets you compare performance across geographic regions, device types, or other groups that a NetVoyant administrator has configured for your network.

See the following entries to view more information about the views displayed on this report:

- [“Availability Group Comparison” on page 209](#)
- [“Reachability Group Comparison” on page 234](#)
- [“Latency Group Comparison” on page 225](#)
- [“Utilization Group Comparison” on page 341](#)
- [“Total Volume Group Comparison” on page 338](#)

Follow these steps:

1. From the menu bar, click Management.
2. Select Group Comparison.

Router Summary Report

The Router Summary report displays a graphical management overview of router performance in a reporting group. The report is made up of distribution views, which aggregate values for selected metrics for all routers within a selected group and let you assess the overall health of a selected group of routers.

See the following entries to view more information about the views displayed on this report:

- [“Cisco CPU Utilization Distribution” on page 405](#)
- [“Avg CPU Utilization vs. 95th Percentile” on page 301](#)
- [“Cisco Memory Util Distribution” on page 407](#)
- [“Average Latency” on page 212](#)
- [“Total In/Out Volume” on page 336](#)
- [“Top Errors” on page 329](#)
- [“Top Discards” on page 328](#)

Follow these steps:

1. From the menu bar, click Management.
2. Select Router Summary.

Router Group Comparison Report

The Router Group Comparison report compares router performance across multiple subgroups of a selected reporting group. The report is made up of group comparison views, which compare aggregated values for a metric for routers across multiple subgroups. It lets you compare router performance across geographic regions or other groups that a NetVoyant administrator has configured for your network.

See the following entries to view more information about the views displayed on this report:

- [“Cisco CPU Group Comparison” on page 402](#)
- [“Cisco CPU Util Sub Group Summary” on page 404](#)
- [“Cisco Memory Util Group Comparison” on page 408](#)
- [“Cisco Memory Util Sub Group Summary” on page 410](#)
- [“Total Volume Group Comparison” on page 338](#)
- [“Volume Sub Group Summary” on page 343](#)

Follow these steps:

1. From the menu bar, click Management.
2. Select Router Group Comparison.

Server Summary Report

The Server Summary report displays a graphical management overview of server performance in a reporting group. The report is made up of Distribution views, which aggregate values for selected metrics for all servers within a selected group and let you assess the overall health of a selected group of servers.

See the following entries to view more information about the views displayed on this report:

- [“CPU Util Distribution” on page 216](#)
- [“Avg CPU Utilization vs. 95th Percentile” on page 301](#)
- [“Top CPU Utilization” on page 237](#)
- [“Top Disk Utilization” on page 244](#)
- [“Top Disk Storage” on page 243](#)
- [“Average Availability” on page 212](#)
- [“Average Latency” on page 212](#)
- [“Total In/Out Volume” on page 336](#)

Follow these steps:

1. From the menu bar, click Management.
2. Select Server Summary.

Server Group Comparison Report

The Server Group Comparison report compares server performance across multiple subgroups of a selected reporting group. The report is made up of group comparison views, which compare aggregated values for a metric for servers across multiple subgroups. It lets you compare server performance across geographic regions or other groups that a NetVoyant administrator has configured for your network.

See the following entries to view more information about the views displayed on this report:

- [“CPU Util Group Comparison” on page 217](#)
- [“CPU Util Sub Group Summary” on page 218](#)
- [“Memory Util Group Comparison” on page 229](#)
- [“Memory Util Sub Group Summary” on page 230](#)
- [“Total Volume Group Comparison” on page 338](#)
- [“Volume Sub Group Summary” on page 343](#)
- [“Latency Sub Group Summary” on page 226](#)

Follow these steps:

1. From the menu bar, click Management.
2. Select Server Group Comparison.

Frame Relay Summary Report

The Frame Relay Summary report displays a graphical management overview of frame-relay performance in a reporting group. The report is made up of distribution views, which aggregate values for selected metrics within a selected group and let you assess the overall health of a selected group of frame-relay circuits.

See the following entries to view more information about the views displayed on this report:

- [“Avg Frame Relay Performance Index” on page 269](#)
- [“Frame Relay Total Volume” on page 277](#)
- [“Top Frame Relay Circuits” on page 291](#)
- [“Avg Utilization In vs. 95th Percentile” on page 302](#)
- [“Avg Utilization Out vs. 95th Percentile” on page 302](#)

Follow these steps:

1. From the menu bar, click Management.
2. Select Frame Relay Summary.

Frame Relay Group Comparison Report

The Frame Relay Group Comparison report compares frame-relay performance across multiple subgroups of a selected reporting group. The report is made up of group comparison views, which compare aggregated values for a metric across multiple subgroups. It lets you compare frame relay performance across geographic regions or other groups that a NetVoyant administrator has configured for your network.

See the following entries to view more information about the views displayed on this report:

- [“Frame Relay Util Group Comparison” on page 277](#)
- [“Frame Relay Volume Group Comparison” on page 286](#)
- [“Frame Relay Congestion Group Comparison” on page 273](#)

Follow these steps:

1. From the menu bar, click Management.
2. Select Frame Relay Group Comparison.

WAN Summary Report

The WAN Summary report displays a graphical management overview of Wide Area Network (WAN) performance in a reporting group. The report is made up of distribution views, which aggregate values for selected metrics within a selected group and let you assess the overall health of a selected group of WAN interfaces.

See the following entries to view more information about the views displayed on this report:

- [“Average T1 Availability” on page 451](#)
- [“Total T1 Volume” on page 471](#)
- [“Top T1 Circuits” on page 464](#)
- [“Top T1 Interfaces” on page 465](#)
- [“Average T3 Availability” on page 452](#)
- [“Total T3 Volume” on page 471](#)
- [“Top T3 Circuits” on page 467](#)
- [“Top T3 Interfaces” on page 468](#)

Follow these steps:

1. From the menu bar, click Management.
2. Select WAN Summary.

WAN Group Comparison Report

The WAN Group Comparison report compares Wide Area Network (WAN) performance across multiple subgroups of a selected reporting group. The report is made up of group comparison views, which compare aggregated values for a metric across multiple subgroups. It lets you compare WAN performance across geographic regions or other groups that a NetVoyant administrator has configured for your network.

See the following entries to view more information about the views displayed on this report:

- “T1 Availability Group Comparison” on page 456
- “Total MIB-II T1 Volume Group Comparison” on page 470
- “T1 Error Detail Group Comparison” on page 456
- “T3 Availability Group Comparison” on page 458
- “Total MIB-II T3 Volume Group Comparison” on page 470
- “T3 Error Detail Group Comparison” on page 459

Follow these steps:

1. From the menu bar, click Management.
2. Select WAN Group Comparison.

LAN Summary Report

The LAN Summary report displays a graphical management overview of Local Area Network (LAN) performance in a reporting group. The report is made up of distribution views, which aggregate values for selected metrics within a selected group and let you assess the overall health of a selected group of LAN interfaces.

See the following entries to view more information about the views displayed on this report:

- “Average Performance Index” on page 299
- “Total MIB-II Ethernet Volume” on page 337
- “Avg Ethernet Utilization” on page 301
- “Total Ethernet Volume” on page 336
- “Top Ethernet Error Detail” on page 264

Follow these steps:

1. From the menu bar, click Management.
2. Select LAN Summary.

LAN Group Comparison Report

The LAN Group Comparison report compares Local Area Network (LAN) performance across multiple subgroups of a selected reporting group. The report is made up of group comparison views, which compare aggregated values for a metric across multiple subgroups. It lets you compare LAN performance across geographic regions or other groups that a NetVoyant administrator has configured for your network.

See the following entries to view more information about the views displayed on this report:

- [“Total MIB-II Ethernet Volume Group Comparison” on page 267](#)
- [“Ethernet Utilization Group Comparison” on page 258](#)
- [“Ethernet Volume Group Comparison” on page 259](#)
- [“Ethernet Errors Group Comparison” on page 258](#)

Follow these steps:

1. From the menu bar, click Management.
2. Select LAN Group Comparison.

VIEWING REPORTS FOR CAPACITY PLANNING

These reports let you decide which devices or segments need an upgrade without having to sort through large amounts of unrelated data. Capacity Planning reports pinpoint the fastest growth, the top changes, and the metrics closest to threshold and let you quickly drill down to more detailed reports on the related devices or interfaces.

The following are the capacity planning reports available in NetVoyant:

Report	Enables you to...	More information
Top Projections	Ascertain the future health and capacity of your devices and interfaces based on historical performance.	“Top Projections Report” on page 41
Top Closest to Threshold	View a snapshot of those devices that need attention based on historical trends in growth rates.	“Top Closest to Threshold Report” on page 41
Top Monthly Changes	Determine which devices and interfaces are experiencing rapid changes in performance.	“Top Monthly Changes Report” on page 42

Top Projections Report

The Top Projections report displays growth-rate projections for selected metrics for 30, 60, and 90 days within a selected reporting group. This report lets you ascertain the future health and capacity of your devices and interfaces based on historical performance.

See the following entries to view more information about the views displayed on this report:

- [“Top Projections - Latency” on page 251](#)
- [“Top Projections - Interface Utilization” on page 334](#)
- [“Top Projections - Cisco CPU Utilization” on page 424](#)
- [“Top Projections - Cisco Memory Utilization” on page 425](#)
- [“Top Projections - Device CPU Utilization” on page 249](#)
- [“Top Projections - Device Memory Utilization” on page 250](#)
- [“Top Projections - Frame Relay PVC Util” on page 296](#)
- [“Top Projections - Frame Relay Congestion” on page 295](#)
- [“Top Projections - T1” on page 461](#)
- [“Top Projections - T3” on page 461](#)
- [“Top Projections - CBQoS Class Map Pre-Util” on page 160](#)
- [“Top Projections - CBQoS Class Map Post-Util” on page 159](#)
- [“Top Projections - Ethernet Utilization” on page 266](#)
- [“Top Projections - Ethernet Volume” on page 266](#)

Follow these steps:

1. From the menu bar, click Capacity Planning.
2. Select Top Projections.

Top Closest to Threshold Report

The Top Closest to Threshold report displays those devices or interfaces with metric values that are closest to the threshold for those metrics and a projection in days until each value exceeds the threshold. This report provides you with a snapshot of those devices that need attention based on historical trends in growth rates.

See the following entries to view more information about the views displayed on this report:

- [“Closest to Threshold - Latency” on page 214](#)
- [“Closest to Threshold - Interface Utilization” on page 303](#)
- [“Closest to Threshold - Cisco CPU Utilization” on page 411](#)
- [“Closest to Threshold - Cisco Memory Utilization” on page 411](#)
- [“Closest to Threshold - Device CPU Utilization” on page 213](#)
- [“Closest to Threshold - Device Memory Utilization” on page 214](#)
- [“Closest to Threshold - Frame Relay PVC Util” on page 271](#)
- [“Closest to Threshold - Frame Relay Congestion” on page 271](#)

- [“Closest to Threshold - T1” on page 452](#)
- [“Closest to Threshold - T3” on page 453](#)
- [“Closest to Threshold - Ethernet Utilization” on page 255](#)
- [“Closest to Threshold - Ethernet Volume” on page 256](#)

Follow these steps:

1. From the menu bar, click Capacity Planning.
2. Select Top Closest to Threshold.

Top Monthly Changes Report

The Top Monthly Changes report displays the average metric values for devices and interfaces that have the highest change in those metric values. The views in this report display the current month and previous month's 95th percentile values, which are used to calculate which metrics changed the most. The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value, which normalizes and removes spikes from the data.

This report lets you determine which devices and interfaces are experiencing rapid changes in performance.

See the following entries to view more information about the views displayed on this report:

- [“Top Changes - Interface Utilization” on page 325](#)
- [“Top Changes - Cisco CPU Utilization” on page 413](#)
- [“Top Changes - Cisco Memory Utilization” on page 414](#)
- [“Top Changes - Device CPU Utilization” on page 236](#)
- [“Top Changes - Frame Relay PVC Util” on page 288](#)

Follow these steps:

1. From the menu bar, click Capacity Planning.
2. Select Top Monthly Changes.

VIEWING SERVICE-LEVEL REPORTS

Service-Level reports can help you verify your service level agreements or keep track of which of your metrics have unexpected values. These reports include coverage of your IP SLA operations, Class-Based QoS measurements, VoIP tests, and the worst deviations away from baselines or over thresholds.

The following are the service-level reports available in NetVoyant:

Report	Enables you to...	More information
Top Deviation from Normal	Pinpoint where devices and interfaces in a selected reporting group are experiencing the most change.	“Top Deviation from Normal Report” on page 43
Top Threshold Violations	Identify and respond to the worst threshold violations.	“Top Threshold Violations Report” on page 45
IP SLA	Measure round-trip delay, jitter, packet loss, errors and other metrics to qualify the overall health of network paths between configured source and destination addresses.	“IP SLA Report” on page 45
VoIP	Measure round-trip delay, jitter, packet loss, errors and other metrics to qualify the expected quality of voice or other Real-time Transport Protocol (RTP) traffic between configured source and destination addresses.	“VoIP Report” on page 46
Class Based QoS	View the Pre and Post Policy volume and rate, queue drops, and queue size, usage and discards.	“Class Based QoS Report” on page 47

Top Deviation from Normal Report

The Top Deviation from Normal report compares metric values on those devices and interfaces that have deviated the most from the 30-day rolling baseline values for those metrics. This report lets you pinpoint where devices and interfaces in a selected reporting group are experiencing the most change.

Note: Normals are generated as averages of data using baselines over the past 30 days. Baselines are generated for expressions when there are baselines configured by dataset in NetVoyant. The baselines used to calculate the normal values used in this standard report are configured by default, but can be modified in NetVoyant by a NetVoyant administrator.

See the following entries to view more information about the views displayed on this report:

- [“Top Deviation From Norm - Latency” on page 240](#)
- [“Top Deviation From Norm - Interface Utilization” on page 327](#)
- [“Top Deviation From Norm - Interface Errors/Discards” on page 326](#)
- [“Top IP SLA RTT Deviation From Norm” on page 375](#)
- [“Top Deviation From Norm - Cisco CPU Util” on page 422](#)
- [“Top Deviation From Norm - Cisco Memory Util” on page 423](#)

- “Top Deviation From Norm - Device CPU Util” on page 239
- “Top Deviation From Norm - Device Memory Util” on page 239
- “Top Deviation From Norm - Frame Relay PVC Util” on page 290
- “Top Deviation From Norm - Frame Relay Congestion” on page 289
- “Top Deviation From Norm - T1 Unavailable/Errored Seconds” on page 460
- “Top Deviation From Norm - T3 Unavailable Seconds” on page 460
- “Top Deviation From Norm - CBQoS Class Map Pre-Util” on page 158
- “Top Deviation From Norm - CBQoS Class Map Post-Util” on page 157

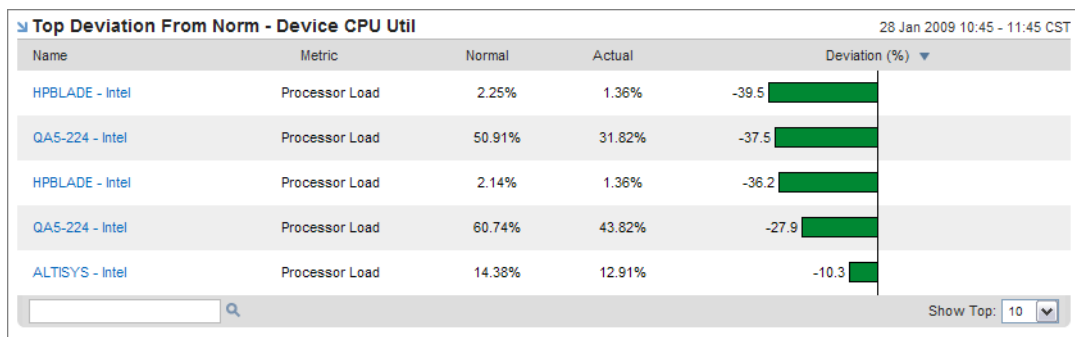
Follow these steps:

1. From the menu bar, click Service Level Reporting.
2. Select Top Deviation from Normal.

Top Deviation from Normal Report Calculations

All *normals* are averages based on the hourly rollup values. However, when you select a different period for a Top Deviation from Normal report, it changes the way that normal is calculated.

The default period for the Top Deviation from Norm views is Last hour



- **Last hour:** This is the default period for Top Deviation from Norm views and displays an hourly baseline or normal calculated as the average of the past 30 days of that particular hour. When an administrator configures NetVoyant so that baselines can be calculated for source intervals of less than an hour, this displays an hourly baseline calculated as the average of the past 30 days of all of the less-than-hourly baselines for the hour selected. For example, you have rttstats (IP SLA data) with a baseline source interval of 15 minutes. When you display the view for the past hour, you see an hourly baseline that is calculated as an average of four 15-minute baselines for that hour for the past 30 days.
- **Last day or specified day:** When you select a one-day period, the view displays a daily baseline calculated as the average of the hourly baselines for that day, which are all based on an average of the past 30 days.
- **Last 7 days or specified week:** When you select a one-week period, the view displays a weekly baseline calculated as the average of that week's worth of daily baselines, which are based on the hourly baselines.

- Last 30 days or specified month: When you select a one-month period, the view displays a monthly baseline calculated as the average of that month's worth of daily baselines, which are based on the hourly baselines.
- Last 3 months or specified quarter: When you select a three-month period, the view displays a monthly baseline calculated as the average of that quarter's worth of daily baselines, which are based on the hourly baselines.
- Last 12 months or specified month: When you select a one-year period, the view displays an annual baseline calculated as the average of that year's worth of monthly baselines, which are based on the hourly baselines.

Top Threshold Violations Report

The Top Threshold Violations report displays metrics that exceeded their thresholds on the devices or interfaces in a selected reporting group. Those values that exceeded threshold display in red. This report also displays the percent of time that each value was over threshold and the number of unique threshold crossing events observed for a device or interface during the selected period.

This report lets you identify and respond to the worst threshold violations.

See the following entries to view more information about the views displayed on this report:

- [“Top Threshold Violations - Interfaces” on page 335](#)
- [“Top Threshold Violations - Cisco System” on page 427](#)
- [“Top Threshold Violations - Switch Backplane Util” on page 428](#)
- [“Top Threshold Violations - Device CPU” on page 252](#)
- [“Top Threshold Violations - Device Storage” on page 253](#)
- [“Top Threshold Violations - Frame Relay” on page 296](#)

Follow these steps:

1. From the menu bar, click Service Level Reporting.
2. Select Top Threshold Violations.

IP SLA Report

The IP SLA report displays metrics collected by Cisco IOS IP SLA operations that you or an administrator has configured on IP SLA-capable Cisco devices. IP SLA operation data collected in this report can measure round-trip delay, jitter, packet loss, errors and other metrics to qualify the overall health of network paths between configured source and destination addresses.

See the following entries to view more information about the views displayed on this report:

- [“IP SLA Summary” on page 365](#)
- [“IP SLA Operations by Rtt Type” on page 364](#)
- [“IP SLA Operations by Router” on page 363](#)
- [“Top IP SLA RTT Deviation From Norm” on page 375](#)
- [“Top IP SLA Over Threshold” on page 374](#)

- [“Top IP SLA Errored Operations” on page 372](#)
- [“IP SLA Operations List” on page 364](#)
- [“Top VoIP Jitter Operations” on page 474](#)
- [“Service Exceptions - IP SLA” on page 445](#)

Follow these steps:

1. From the menu bar, click Service Level Reporting.
2. Select IP SLA.

VoIP Report

The VoIP report displays metrics that predict voice quality over Voice Over IP (VoIP) on your network. These metrics must be collected by Cisco IOS IP SLA operations that you or an administrator has configured on IP SLA capable Cisco devices.

VoIP data collected in this report can measure round-trip delay, jitter, packet loss, errors and other metrics to qualify the expected quality of voice or other Real-time Transport Protocol (RTP) traffic between configured source and destination addresses.

See the following entries to view more information about the views displayed on this report:

- [“IP SLA VoIP Summary” on page 472](#)
- [“VoIP Operations by Router” on page 475](#)
- [“Top VoIP RTT Deviation from Norm” on page 474](#)
- [“Top VoIP Over Threshold” on page 474](#)
- [“Top VoIP Errored Operations” on page 473](#)
- [“Top VoIP Jitter Operations” on page 474](#)
- [“Worst MOS Scores” on page 476](#)
- [“Service Exceptions - VoIP” on page 450](#)

Follow these steps:

1. From the menu bar, click Service Level Reporting.
2. Select VoIP.

Class Based QoS Report

The Class Based QoS report is a top-level QoS “dashboard” and displays highly aggregated views to provide an overall picture or view of QoS usage, rate, volume, and drops aggregated by the name of the classmap. Separate views are presented for Input/Inbound policy and Output/Outbound policy directions.

The initial page is populated with the overall data derived from the ClassMapStats table in the CBQoS MIB showing Pre- and Post-policy usage, rate, volume, and drops. You can add top level views to the page to show statistics from Police activity, Queuing, WRED, or Traffic Shaping. These views have not been added, because every organization is different. CA cannot predict what QoS mechanisms are used by an organization.

When you drill down by clicking one of the class names in the views displayed on the Class Based QoS report, it automatically forwards you to a new page that shows Top N style views (tables and bar charts) displaying the Top Interfaces for that class. This page is intended to answer the question, “Which interfaces push the most Gold or Real-time traffic?” Of course you can drill down to a queue, but the general idea is a top-N style listing of the interfaces that have the most usage, rate, volume, and potentially drops for a classmap.

For more information, see [“Viewing CBQoS Class Map Reports” on page 72](#).

See the following entries to view more information about the views displayed on this report:

- [“CBQoS Input Class Maps” on page 161](#)
- [“CBQoS Output Class Maps” on page 165](#)
- [“CBQoS Input Policy Pre-Post Class Maps” on page 163](#)
- [“CBQoS Output Policy Pre-Post Class Maps” on page 167](#)
- [“CBQoS Input Pre-vs-Post Utilization by Class” on page 164](#)
- [“CBQoS Output Pre-vs-Post Utilization by Class” on page 168](#)
- [“CBQoS Input Pre-vs-Post Volume by Class” on page 164](#)
- [“CBQoS Output Pre-vs-Post Volume by Class” on page 169](#)
- [“CBQoS Input Dropped Packet Percentage by Class” on page 161](#)
- [“CBQoS Output Dropped Packet Percentage by Class” on page 166](#)

Follow these steps:

1. From the menu bar, click Service Level Reporting.
2. Select Class Based QoS.

Note: Depending on how you configured your devices for congestion avoidance and management, some views in the report may not be populated with data. When some tables do not contain data, remove these views from the report to reduce clutter on the page. For more information, see [“Removing a View from a Report Page” on page 22](#).

VIEWING OPERATIONS MANAGEMENT REPORTS

These reports provide you with an operations-level view of the devices in your network, including those devices that are most unavailable, the interfaces that are most used, and those protocols that are most active on your network. You can also view the NetVoyant events or alarms that cause loss of SNMP data.

The following operations reports are available:

Report	Enables you to...	More information
Operations Summary	Identify devices and interfaces in a selected reporting group that are more prone to critical issues or failure.	“Operations Summary Report” on page 48
Operations Summary Graphs	Identify and see trends over time for devices and interfaces in a selected reporting group that are more prone to critical issues or failure.	“Operations Summary Graphs Report” on page 49
Alarms	Respond to those events that cause loss of critical SNMP data.	“Alarms Report” on page 50
Events	Monitor the collection of SNMP data.	“Events Report” on page 51
Protocol Distribution	Monitor application protocols and identify and respond to undesirable protocols or applications that are active on your network.	“Protocol Distribution Report” on page 51

Operations Summary Report

The Operations Summary report compares those devices and interfaces that have the worst values for a metric, such as availability. This report lets you identify devices and interfaces in a selected reporting group that are more prone to critical issues or failure.

See the following entries to view more information about the views displayed on this report:

- [“Top Least Available” on page 244](#)
- [“Top Least Reachable” on page 246](#)
- [“Top Interfaces” on page 332](#)
- [“Top Interface Errors/Discards” on page 330](#)
- [“Top IP SLA Operations” on page 374](#)
- [“Top Cisco CPU/Buffer Utilization” on page 417](#)
- [“Top Cisco Memory” on page 419](#)
- [“Top Cisco Switch Backplane Utilization” on page 421](#)
- [“Top CPU Utilization” on page 237](#)
- [“Top Memory Utilization” on page 247](#)
- [“Top Disk Storage” on page 243](#)
- [“Top Device Software” on page 242](#)
- [“Top Frame Relay Circuits” on page 291](#)

- [“Top T1 Circuits” on page 464](#)
- [“Top T3 Circuits” on page 467](#)
- [“Top Ethernet Utilization” on page 266](#)
- [“CBQoS Input Policy Pre-Post Class Maps” on page 163](#)
- [“CBQoS Output Policy Pre-Post Class Maps” on page 167](#)

Follow these steps:

1. From the menu bar, click Operations.
2. Select Summary.

Operations Summary Graphs Report

The Operations Summary Graphs report presents a graphical comparison for those devices and interfaces that have the worst values for a metric, such as availability. This report lets you identify trends over time for devices and interfaces in a selected reporting group that are more prone to critical issues or failure.

See the following entries to view more information about the views displayed on this report:

- [“Top Least Available” on page 244](#)
- [“Top Least Reachable” on page 246](#)
- [“Top Interface Utilization” on page 330](#)
- [“Top Interface Volume” on page 331](#)
- [“Top Errors” on page 329](#)
- [“Top Discards” on page 328](#)
- [“Top Least Available \(Reboots\)” on page 245](#)
- [“Top Interfaces” on page 332](#)

Follow these steps:

1. From the menu bar, click Operations.
2. Select Summary Graphs.

Alarms Report

The Alarms report lists all NetVoyant service exceptions broken down by type, such as alarms relating to the collection of T1 or Ethernet data. This report lets you respond to those events that cause loss of critical SNMP data.

Note: The Alarms report displays service exception views. These views are designed to include trap, polling, and threshold events that were open during the selected period. The displayed events can be cleared during the period, cleared some time after that period, or still open.

See the following entries to view more information about the views displayed on this report:

- [“Service Exceptions - Availability” on page 430](#)
- [“Service Exceptions - Reachability” on page 447](#)
- [“Service Exceptions - Interfaces” on page 444](#)
- [“Service Exceptions - HR Processor” on page 442](#)
- [“Service Exceptions - HR Storage” on page 443](#)
- [“Service Exceptions - Ethernet” on page 440](#)
- [“Service Exceptions - IP SLA” on page 445](#)
- [“Service Exceptions - Frame Relay” on page 441](#)
- [“Service Exceptions - Cisco System” on page 439](#)
- [“Service Exceptions - Cisco Memory Pool” on page 437](#)
- [“Service Exceptions - Cisco Switch” on page 439](#)
- [“Service Exceptions - T1” on page 448](#)
- [“Service Exceptions - T3” on page 448](#)
- [“Service Exceptions - Cisco NBAR” on page 438](#)
- [“Service Exceptions - Traps” on page 449](#)
- [“Service Exceptions - CBQoS Class Maps” on page 431](#)
- [“Service Exceptions - CBQoS Match Statements” on page 433](#)
- [“Service Exceptions - CBQoS Queueing” on page 435](#)
- [“Service Exceptions - CBQoS Police Action” on page 433](#)
- [“Service Exceptions - CBQoS Traffic Shaping” on page 437](#)
- [“Service Exceptions - CBQoS RED” on page 435](#)
- [“Service Exceptions - CBQoS Police Color” on page 434](#)
- [“Service Exceptions - CBQoS Set” on page 436](#)

Follow these steps:

1. From the menu bar, click Operations.
2. Select Alarms.

Events Report

The Events report lists all NetVoyant events, which are actions, changes, or other occurrences that are tracked using event logs. This report lets you monitor the collection of SNMP data.

See [“Event Log” on page 428](#) to view more information about the view displayed on this report:

Follow these steps:

1. From the menu bar, click Operations.
2. Select Events.

Protocol Distribution Report

The Protocol Distribution report presents pie charts and tables to compare those protocols that are most active on your network using NBAR data and data from an RMON2 probe. This report lets you monitor application protocols and identify and respond to undesirable protocols or applications that are active on your network.

See the following entries to view more information about the views displayed on this report:

- [“Top Protocols In \(NBAR\)” on page 398](#)
- [“Top Protocols Out \(NBAR\)” on page 399](#)
- [“Top Protocol Utilization \(NBAR\)” on page 396](#)
- [“Top Protocol Volume \(NBAR\)” on page 397](#)
- [“Top Protocol Packets \(NBAR\)” on page 395](#)
- [“Top Protocol Rates \(NBAR\)” on page 395](#)
- [“Top Protocols \(RMON2\)” on page 397](#)
- [“Top \(All Traffic\) Protocols \(RMON2\)” on page 392](#)

Follow these steps:

1. From the menu bar, click Operations.
2. Select Protocols.

VIEWING CONTEXT-LEVEL REPORTS

You can access detailed information related to most reports by clicking links in a report or on a report itself. NetVoyant automatically displays more information about the selected device, interface, or group.

When you drill down to a context-level report, you can view more context-level reports from the context-level menu. For example, when you click a server in a view on a report page, NetVoyant displays a Server Performance report page and adds a Server Pages menu to the menu bar. From the Server Pages menu, you can select more server-level reports for the selected server such as the Server Capabilities report.

You can access all or a selection of these context-level reports:

- [“Viewing Device Reports” on page 52](#)
- [“Viewing Server Reports” on page 56](#)
- [“Viewing Router Reports” on page 60](#)
- [“Viewing Switch Reports” on page 64](#)
- [“Viewing Interface Reports” on page 68](#)
- [“Viewing CBQoS Class Map Reports” on page 72](#)
- [“Viewing CB QoS Policy Reports” on page 74](#)
- [“Viewing IP SLA Operations Reports” on page 78](#)
- [“Viewing Cisco Performance Reports” on page 83](#)
- [“Viewing Frame Relay Reports” on page 85](#)
- [“Viewing T1/T3 Performance Reports” on page 88](#)
- [“Viewing the Protocol Summary and Detail Reports” on page 89](#)
- [“Viewing the Ethernet Performance Report” on page 90](#)

Viewing Device Reports

These reports can help you monitor a selected device, such as a network hub or workstation. To view device reports, you must select a device in a NetVoyant report or a device or address search.

The following the device-level reports are available:

Report	Enables you to...	More information
Device Performance	View trends in performance for a selected device, such as a network hub or workstation.	“Device Performance Report” on page 53
Device Capabilities	View and monitor resources or interfaces on a device.	“Device Capabilities Report” on page 53
Device Exceptions	Respond to those events that cause loss of critical SNMP data for a device.	“Device Exceptions Report” on page 54
Device Details	View information about a device, such as the device name, location, or contact.	“Device Details Report” on page 55

Device Performance Report

The Device Performance report displays trends in performance for a device, such as a network hub, printer, or workstation.

Note: The views displayed in this report depend upon the device class and the metrics supported by the selected device.

See the following entries to view more information about some of the views displayed on this report:

- “Device Summary Gauges” on page 221
- “Switch Summary Gauges” on page 412
- “Cisco Memory Utilization Trend” on page 408
- “Cisco CPU Utilization Trend” on page 405
- “CPU Utilization Trend” on page 217 (when the selected device is not a printer)
- “Memory Utilization Trend” on page 230
- “Availability Trend” on page 211
- “Ping Latency Trend w/ Baseline” on page 232
- “Cisco Switch Backplane Utilization Trend” on page 410
- “Cisco Buffer Utilization” on page 402
- “Cisco Buffer Miss Rate” on page 401
- “Top Interface Utilization” on page 330
- “Top Interface Volume” on page 331
- “Top Errors” on page 329
- “Top Discards” on page 328

Follow these steps:

1. Perform one of the following actions:
 - Drill down to a view that displays the device.
 - Search for and select the device.
Information relating to the selected device is displayed, and a Device Pages menu.
2. Click Device Pages, Device Performance.

Device Capabilities Report

The Device Capabilities report displays tables of interfaces, frame-relay circuits, IP SLA operations, memory and system resources for a selected device, such as a network hub or workstation. This report lets you view and monitor resources or interfaces on a device.

Note: The views displayed in this report depend upon the device class of the selected device.

See the following entries to view more information about the views displayed on this report:

- “Top Least Available” on page 244
- “Top Interfaces” on page 332
- “Top Interface Errors/Discards” on page 330

- “Top CPU Utilization” on page 237
- “IP SLA Operations List” on page 364
- “Top Cisco CPU/Buffer Utilization” on page 417
- “Top Cisco Memory” on page 419
- “Top Cisco Switch Backplane Utilization” on page 421
- “Top Disk Storage” on page 243
- “Top Frame Relay Circuits” on page 291
- “Top T1 Circuits” on page 464
- “Top T3 Circuits” on page 467
- “Top Ethernet” on page 264
- “Top Protocols (RMON2)” on page 397

Follow these steps:

1. Perform one of the following actions:

- Drill-in to a view that displays the device.
- Search for and select the device.

Information relating to the selected device is displayed, and a Device Pages menu.

2. Click Device Pages, Device Capabilities.

Device Exceptions Report

The Device Exceptions report displays all NetVoyant alarms broken down by type for a selected device, such as a network hub or workstation. This report lets you respond to events that cause loss of critical SNMP data for a device.

Note: The views displayed in this report depend upon the device class of the selected device.

See the following entries to view more information about some of the views displayed on this report:

- “Service Exceptions - Availability” on page 430
- “Service Exceptions - Reachability” on page 447
- “Service Exceptions - Interfaces” on page 444
- “Service Exceptions - HR Processor” on page 442
- “Service Exceptions - HR Storage” on page 443
- “Service Exceptions - Ethernet” on page 440
- “Service Exceptions - IP SLA” on page 445
- “Service Exceptions - Frame Relay” on page 441
- “Service Exceptions - Cisco System” on page 439
- “Service Exceptions - Cisco Memory Pool” on page 437
- “Service Exceptions - Cisco Switch” on page 439
- “Service Exceptions - T1” on page 448
- “Service Exceptions - T3” on page 448

- “Service Exceptions - Protocols (RMON2)” on page 446
- “Service Exceptions - CBQoS Class Maps” on page 431
- “Service Exceptions - CBQoS Match Statements” on page 433
- “Service Exceptions - CBQoS Queueing” on page 435
- “Service Exceptions - CBQoS Police Action” on page 433
- “Service Exceptions - CBQoS Traffic Shaping” on page 437
- “Service Exceptions - CBQoS RED” on page 435
- “Service Exceptions - CBQoS Police Color” on page 434
- “Service Exceptions - CBQoS IP Header Compression” on page 432
- “Service Exceptions - CBQoS Set” on page 436
- “Service Exceptions - Cisco NBAR” on page 438
- “Service Exceptions - Traps” on page 449

Follow these steps:

1. Perform one of the following actions:
 - Drill down to a view that displays the device.
 - Search for and select the device.

Information relating to the selected device is displayed, and a Device Pages menu.
2. Click Device Pages, Device Exceptions.

Device Details Report

The Device Details report displays a table of information about a selected device, such as a network hub or workstation. This report lets you view information about a device, such as the device name, location, or contact.

The Device Details view displays some or all of the following details for a device:

Parameter	Description
Device Alias	The device DNS name or IP address. You can configure NetVoyant to apply names to your discovered devices using the sysName OID. You can also edit the device alias to another value on the device Details tab in the NetVoyant console.
Device Name	The device DNS name or, for unresolvable names, the device IP address.
sysName	The device name as identified in the sysName OID on the device. You can configure NetVoyant to apply names to your discovered devices using the sysName OID.
sysDescr	The device description as identified in the sysDescr OID on the device.
sysObjectID	The device SNMP agent uniquely identifies the device model using the sysObjectID.
sysContact	The device contact person as identified in the sysContact OID on the device.
sysLocation	The device location as identified in the sysLocation OID on the device.

Parameter	Description
SNMP Capable	The SNMP version that the device SNMP agent supports.
Device Class	The device class, as identified during discovery.
Device Model	The device model, as identified during discovery.
SNMP Timeout	The length of time in seconds to wait for an SNMP reply from the device before it considers the request to have timed out. Longer timeouts significantly increase how long it takes to complete the discovery process.
SNMP Retries	The number of times to retry the device for each SNMP community string when an SNMP request times out. More retries significantly increase how long it takes to complete the discovery process.
SNMP Discovery	Indicates how the device is configured for discovery. The following are possible values for SNMP Discovery: <ul style="list-style-type: none"> Extended indicates that the device is set to extended discovery. NetVoyant rediscovers device characteristics during its rediscovery process. It also uses information in the device ARP cache and IP routing table to discover other devices to discover. Enabled indicates that the device is enabled normally for discovery. NetVoyant rediscovers device characteristics during its rediscovery process. Disabled indicates that discovery is disabled for the device. NetVoyant does not rediscover this device's characteristics during its rediscovery process.
Polling Enabled	Indicates whether polling is enabled for the device. When polling is enabled, NetVoyant gathers data for the device.
Polling Station	The NetVoyant server that polls the device for SNMP statistics. In a distributed configuration, this is the polling station that polls the device. In a standalone configuration, the Polling Station is the Master console.
Properties	Properties for the selected device.

Follow these steps:

1. Perform one of the following actions:
 - Drill down to a view that displays the device.
 - Search for and select the device.

Information relating to the selected device is displayed, and a Device Pages menu.
2. Click Device Pages, Device Details.

Viewing Server Reports

These reports can help you monitor a selected server. To view server reports, you must select a server in a NetVoyant report or a device or address search.

The following the server-level reports are available:

Report	Enables you to...	More information
Server Performance	View trends in performance for a selected server.	“Server Performance Report” on page 57

Report	Enables you to...	More information
Server Capabilities	View and monitor resources or interfaces on a server.	“Server Capabilities Report” on page 57
Server Exceptions	Respond to those events that cause loss of critical SNMP data for a server.	“Server Exceptions Report” on page 58
Server Details	View information about a server, such as the device name, location, or contact.	“Server Details Report” on page 58
Server Storage Performance	<i>(Storage volumes only)</i> Assess the performance of a server’s storage volume.	“Server Storage Performance Report” on page 60

Server Performance Report

The Server Performance report displays trends in performance for a selected server.

See the following entries to view more information about the views displayed on this report:

- [“Device Summary Gauges” on page 221](#)
- [“CPU Utilization Trend” on page 217](#)
- [“Memory Util Distribution” on page 227](#)
- [“Availability Trend” on page 211](#)
- [“Top Discards” on page 328](#)
- [“Top Errors” on page 329](#)

Follow these steps:

1. Perform one of the following actions to get the server information and to display a Server Pages menu:
 - Drill-in to a view that displays the server.
 - Search for and select the server.
2. Click Server Pages, Server Performance.

Server Capabilities Report

The Server Capabilities report displays tables of interfaces, memory and storage resources, and software resource usage for a selected server. This report lets you view and monitor resources or interfaces on a server.

See the following entries to view more information about the views displayed on this report:

- [“Top Least Available” on page 244](#)
- [“Top Interfaces” on page 332](#)
- [“Top CPU Utilization” on page 237](#)
- [“Top Memory Utilization” on page 247](#)
- [“Top Disk Storage” on page 243](#)
- [“Top Device Software” on page 242](#)
- [“Top Ethernet” on page 264](#)

Follow these steps:

1. Perform one of the following actions:
 - Drill-in to a view that displays the server.
 - Search for and select the server.

This displays information relating to the selected server and displays a Server Pages menu.

2. Click Server Pages, Server Capabilities.

Server Exceptions Report

The Server Exceptions report displays all NetVoyant alarms broken down by type for a selected server. This report lets you respond to events that cause loss of critical SNMP data for a server.

See the following entries to view more information about the views displayed on this report:

- [“Service Exceptions - Availability” on page 430](#)
- [“Service Exceptions - Reachability” on page 447](#)
- [“Service Exceptions - Interfaces” on page 444](#)
- [“Service Exceptions - HR Processor” on page 442](#)
- [“Service Exceptions - HR Storage” on page 443](#)
- [“Service Exceptions - Ethernet” on page 440](#)

Follow these steps:

1. Perform one of the following actions to get the server information and to display a Server Pages menu:
 - Drill-in to a view that displays the server.
 - Search for and select the server.
2. Click Server Pages, Server Exceptions.

Server Details Report

The Server Details report displays a table of information about a selected server. This report lets you view information about a server, such as the device name, location, or contact.

The following details can be displayed for a server:

Parameter	Description
Device Alias	The device DNS name or IP address. You can configure NetVoyant to apply names to discovered devices using the sysName OID. You can also edit the device alias to another value on the device Details tab.
Device Name	The device DNS name or, for unresolvable names, the device IP address.
sysName	The device name as identified in the sysName OID on the device. You can configure NetVoyant to apply names to your discovered devices using the sysName OID.

Parameter	Description
sysDescr	The device description as identified in the sysDescr OID on the device.
sysObjectID	The device SNMP agent uniquely identifies the device model using the sysObjectID.
sysContact	The device contact person as identified in the sysContact OID on the device.
sysLocation	The device location as identified in the sysLocation OID on the device.
SNMP Capable	The SNMP version that the device SNMP agent supports.
Device Class	The device class, as identified by NetVoyant during discovery.
Device Model	The device model, as identified by NetVoyant during discovery.
SNMP Timeout	The length of time in seconds to wait for an SNMP reply from the device before it considers the request to have timed out. Longer timeouts significantly increase how long it takes to complete the discovery process.
SNMP Retries	The number of times to retry the device for each SNMP community string when an SNMP request times out. More retries significantly increase how long it takes to complete the discovery process.
SNMP Discovery	Indicates how the device is configured for discovery. The following are possible values for SNMP Discovery: <ul style="list-style-type: none"> Extended indicates that the device is set to extended discovery. NetVoyant rediscovers this device's characteristics during its rediscovery process. It also uses information in the device ARP cache and IP routing table to discover other devices to discover. Enabled indicates that the device is enabled normally for discovery. NetVoyant rediscovers device characteristics during its rediscovery process. Disabled indicates that discovery is disabled for the device. NetVoyant does not rediscover device characteristics during its rediscovery process.
Polling Enabled	Indicates whether polling is enabled for the device. When polling is enabled, NetVoyant gathers data for the device.
Polling Station	The NetVoyant server that polls the device for SNMP statistics. In a distributed configuration, this is the polling station that polls the device. In a standalone configuration, the polling station is the Master console.
Properties	Property information for the selected server.

Follow these steps:

1. Perform one of the following actions to get the server information and to display a Server Pages menu:
 - Drill-in to a view that displays the server.
 - Search for and select the server.
2. Click Server Pages, Server Details.

Server Storage Performance Report

The Server Storage Performance report displays trends in usage and failures for a selected storage volume on a server. This report lets you assess the performance of a server's storage volume.

See the following entries to view more information about the views displayed on this report:

- [“Device Storage Utilization Trend” on page 223](#)
- [“Device Storage Failures Trend” on page 222](#)
- [“Poll Instance Details” on page 390](#)

Follow these steps:

1. Drill-in to a Server Storage view that displays the disk drive.
For example, click a disk drive in the Server Storage Table in a Server Capabilities report. Information relating to the selected disk drive is displayed, and a Server Storage Pages menu.
2. Click Server Storage Pages, Server Storage Performance.

Viewing Router Reports

The router reports can help you monitor a selected router. To view router reports, you must select a router in a NetVoyant report, or perform a device or address search and select a router from the list.

The following the router-level reports are available:

Report	Enables you to...	More information
Router Performance	View trends in performance for a selected router.	“Router Performance Report” on page 60
Router Capabilities	View and monitor resources or interfaces on a router.	“Router Capabilities Report” on page 61
Router Exceptions	Respond to those events that cause loss of critical SNMP data for a router.	“Router Exceptions Report” on page 62
Router Details	View information about a router, such as the device name, location, or contact.	“Router Details Report” on page 63

Router Performance Report

The Router Performance report displays trends in performance for a router.

Note: The views displayed in this report depend upon the metrics supported by the selected router.

See the following entries to view more information about some of the views displayed on this report:

- [“Router Summary Gauges” on page 412](#)
- [“Cisco CPU Utilization Trend” on page 405](#)
- [“Availability Trend” on page 211](#)
- [“Ping Latency Trend w/ Baseline” on page 232](#)
- [“Cisco Buffer Utilization” on page 402](#)
- [“Cisco Buffer Miss Rate” on page 401](#)

- [“Top Interface Utilization” on page 330](#)
- [“Top Errors” on page 329](#)
- [“Top Interface Volume” on page 331](#)
- [“Top Discards” on page 328](#)

Follow these steps:

1. Do one of the following to view router information and to display a Router Pages menu:
 - Drill down to a view that displays the router.
 - Search for and select the router.
2. Click Router Pages, Router Performance.

Router Capabilities Report

The Router Capabilities report displays tables of interfaces, frame-relay circuits, IP SLA operations, memory and system resources for a selected router. This report lets you view and monitor resources or interfaces on a router.

Note: The views displayed in this report depend upon the metrics supported by the selected router.

See the following entries to view more information about some of the views displayed on this report:

- [“Top Least Available” on page 244](#)
- [“Top Interfaces” on page 332](#)
- [“Top Interface Errors/Discards” on page 330](#)
- [“CBQoS Input Policy Class Maps Pre-vs-Post” on page 142](#)
- [“CBQoS Output Policy Class Maps Pre-vs-Post” on page 146](#)
- [“IP SLA Operations List” on page 364](#)
- [“Top Cisco CPU/Buffer Utilization” on page 417](#)
- [“Top Cisco Memory” on page 419](#)
- [“Top Cisco Switch Backplane Utilization” on page 421](#)
- [“Top Frame Relay Circuits” on page 291](#)
- [“Top T1 Circuits” on page 464](#)
- [“Top T3 Circuits” on page 467](#)
- [“Top Ethernet” on page 264](#)
- [“Top Protocols \(RMON2\)” on page 397](#)
- [“Top CBQoS Class Map Pre-vs-Post” on page 153](#)
- [“Top CBQoS Class Map Post/Drops” on page 151](#)
- [“Top CBQoS Queueing Statistics” on page 178](#)
- [“Top CBQoS Match Statistics” on page 173](#)
- [“Top CBQoS Police Statistics” on page 176](#)
- [“Top CBQoS Traffic Shaping Packets” on page 183](#)
- [“Top CBQoS RED Volume” on page 180](#)

- [“Top CBQoS IPHC Packets” on page 170](#)
- [“Top CBQoS RED Packets” on page 179](#)

Follow these steps:

1. Perform one of the following actions to get the router information and to display a Router Pages menu:
 - Drill down to a view that displays the router.
 - Search for and select the router.
2. Click Router Pages, Router Capabilities.

Router Exceptions Report

The Router Exceptions report displays all NetVoyant alarms broken down by type for a selected router. This report lets you respond to events that cause loss of critical SNMP data for a router.

Note: The views displayed in this report depend upon the metrics supported by the selected router.

See the following entries to view more information about the views displayed on this report:

- [“Service Exceptions - Availability” on page 430](#)
- [“Service Exceptions - Reachability” on page 447](#)
- [“Service Exceptions - Interfaces” on page 444](#)
- [“Service Exceptions - IP SLA” on page 445](#)
- [“Service Exceptions - Frame Relay” on page 441](#)
- [“Service Exceptions - Cisco System” on page 439](#)
- [“Service Exceptions - Cisco Memory Pool” on page 437](#)
- [“Service Exceptions - Cisco Switch” on page 439](#)
- [“Service Exceptions - Ethernet” on page 440](#)
- [“Service Exceptions - T1” on page 448](#)
- [“Service Exceptions - T3” on page 448](#)
- [“Service Exceptions - Protocols \(RMON2\)” on page 446](#)
- [“Service Exceptions - CBQoS Class Maps” on page 431](#)
- [“Service Exceptions - CBQoS Match Statements” on page 433](#)
- [“Service Exceptions - CBQoS Queueing” on page 435](#)
- [“Service Exceptions - CBQoS Police Action” on page 433](#)
- [“Service Exceptions - CBQoS Traffic Shaping” on page 437](#)
- [“Service Exceptions - CBQoS RED” on page 435](#)
- [“Service Exceptions - CBQoS Police Color” on page 434](#)
- [“Service Exceptions - CBQoS IP Header Compression” on page 432](#)
- [“Service Exceptions - CBQoS Set” on page 436](#)
- [“Service Exceptions - Cisco NBAR” on page 438](#)
- [“Service Exceptions - Traps” on page 449](#)

Follow these steps:

1. Do one of the following to view the router information and to display a Router Pages menu:
 - Drill down to a view that displays the router.
 - Search for and select the router.
2. Click Router Pages, Router Exceptions.

Router Details Report

The Router Details report displays a table of information about a selected router. This report provides information about a router, such as the device name, location, or contact.

The following details are displayed for a router:

Parameter	Description
Device Alias	The device DNS name or IP address. NetVoyant can be configured to apply names to your discovered devices using the sysName OID. You can also edit the device alias to another value on the device's Details tab in the NetVoyant console.
Device Name	The device DNS name or, for unresolvable names, the device IP address.
sysName	The device name as identified in the sysName OID on the device. You can configure NetVoyant to apply names to your discovered devices using the sysName OID.
sysDescr	The device description as identified in the sysDescr OID on the device.
sysObjectID	The device SNMP agent uniquely identifies the device model using the sysObjectID.
sysContact	The device contact person as identified in the sysContact OID on the device.
sysLocation	The device location as identified in the sysLocation OID on the device.
SNMP Capable	The SNMP version that the device's SNMP agent supports.
Device Class	The device class, as identified by NetVoyant during discovery.
Device Model	The device model, as identified by NetVoyant during discovery.
SNMP Timeout	The length of time in seconds to wait for an SNMP reply from the device before it considers the request to have timed out. Longer timeouts significantly increase how long it takes to complete the discovery process.
SNMP Retries	The number of times to retry the device for each SNMP community string when an SNMP request times out. More retries significantly increase how long it takes to complete the discovery process.

Parameter	Description
SNMP Discovery	<p>Indicates how the device is configured for discovery.</p> <p>The following are possible values for SNMP Discovery:</p> <ul style="list-style-type: none"> Extended indicates that the device is set to extended discovery. NetVoyant rediscovers this device's characteristics during its rediscovery process. It also uses information in the device ARP cache and IP routing table to discover other devices to discover. Enabled indicates that the device is enabled normally for discovery. NetVoyant rediscovers device characteristics during its rediscovery process. Disabled indicates that discovery is disabled for the device. NetVoyant does not rediscover device characteristics during its rediscovery process.
Polling Enabled	<p>Indicates whether polling is enabled for the device.</p> <p>When polling is enabled, NetVoyant gathers data for the device.</p>
Polling Station	The NetVoyant server that polls the device for SNMP statistics. In a distributed configuration, this is the polling station that polls the device. In a standalone configuration, the Polling Station is the Master console.
Properties	Property information for the selected router.

Follow these steps:

1. Do one of the following to view the router information and to display a Router Pages menu:
 - Drill-in to a view that displays the router.
 - Search for and select the router.
2. Click Router Pages, Router Details.

Viewing Switch Reports

The switch reports can help you monitor a selected switch. To view switch reports, you must select a switch in a NetVoyant report, or perform a device or address search and select a switch from the list.

The following switch-level reports are available:

Report	Enables you to...	More information
Switch Performance	View trends in performance for a selected switch.	“Switch Performance Report” on page 65
Switch Capabilities	View and monitor resources or interfaces on a switch.	“Switch Capabilities Report” on page 65
Switch Exceptions	Respond to those events that cause loss of critical data for a switch.	“Switch Exceptions Report” on page 66
Switch Details	View information about a switch, such as the device name, location, or contact.	“Switch Details Report” on page 67

Switch Performance Report

The Router Performance report displays trends in performance for a router.

Note: The views displayed in this report depend upon the metrics supported by the selected router.

See the following entries to view more information about some of the views displayed on this report:

- “Switch Summary Gauges” on page 412
- “Cisco Memory Utilization Trend” on page 408
- “Cisco CPU Utilization Trend” on page 405
- “Availability Trend” on page 211
- “Ping Latency Trend w/ Baseline” on page 232
- “Cisco Switch Backplane Utilization Trend” on page 410
- “Cisco Buffer Utilization” on page 402
- “Cisco Buffer Miss Rate” on page 401
- “Top Interface Utilization” on page 330
- “Top Errors” on page 329
- “Top Interface Volume” on page 331
- “Top Discards” on page 328

Follow these steps:

1. Do one of the following to view switch information and to display a Switch Pages menu:
 - Drill-in to a view that displays the switch.
 - Search for and select the switch.
2. Click Switch Pages, Switch Performance.

Switch Capabilities Report

The Switch Capabilities report displays tables of interfaces, memory and system resources for a selected switch. This report lets you view and monitor resources or interfaces on a switch.

Note: The views displayed in this report depend upon the metrics supported by the selected switch.

See the following entries to view more information about some of the views displayed on this report:

- “Top Least Available” on page 244
- “Top Interfaces” on page 332
- “Top Interface Errors/Discards” on page 330
- “Top Cisco CPU/Buffer Utilization” on page 417
- “Top Cisco Memory” on page 419
- “Top Cisco Switch Backplane Utilization” on page 421
- “Top Ethernet” on page 264
- “Top Protocols (RMON2)” on page 397

Follow these steps:

1. Perform one of the following actions to get the switch information and to display a Switch Pages menu:
 - Drill-in to a view that displays the switch.
 - Search for and select the switch.
2. Click Switch Pages, Switch Capabilities.

Switch Exceptions Report

The Switch Exceptions report displays all NetVoyant alarms broken down by type for a switch. This report lets you respond to events that cause loss of critical data for a switch.

Note: The views displayed in this report depend upon the metrics supported by the selected switch.

See the following entries to view more information about the views displayed on this report:

- [“Service Exceptions - Availability” on page 430](#)
- [“Service Exceptions - Reachability” on page 447](#)
- [“Service Exceptions - Interfaces” on page 444](#)
- [“Service Exceptions - HR Processor” on page 442](#)
- [“Service Exceptions - HR Storage” on page 443](#)
- [“Service Exceptions - Ethernet” on page 440](#)
- [“Service Exceptions - Cisco System” on page 439](#)
- [“Service Exceptions - Cisco Memory Pool” on page 437](#)
- [“Service Exceptions - Cisco Switch” on page 439](#)
- [“Service Exceptions - Protocols \(RMON2\)” on page 446](#)
- [“Service Exceptions - CBQoS Class Maps” on page 431](#)
- [“Service Exceptions - CBQoS Match Statements” on page 433](#)
- [“Service Exceptions - CBQoS Queueing” on page 435](#)
- [“Service Exceptions - CBQoS Police Action” on page 433](#)
- [“Service Exceptions - CBQoS Traffic Shaping” on page 437](#)
- [“Service Exceptions - CBQoS RED” on page 435](#)
- [“Service Exceptions - CBQoS Police Color” on page 434](#)
- [“Service Exceptions - CBQoS IP Header Compression” on page 432](#)
- [“Service Exceptions - CBQoS Set” on page 436](#)
- [“Service Exceptions - Cisco NBAR” on page 438](#)
- [“Service Exceptions - Traps” on page 449](#)

Follow these steps:

1. Do one of the following to view the switch information and to display a Switch Pages menu:
 - Drill-in to a view that displays the switch.
 - Search for and select the switch.

2. Click Switch Pages, Switch Exceptions.

Switch Details Report

The Switch Details report displays a table of information about a selected switch. This report provides information about a switch, such as the device name, location, or contact.

The following details are displayed for a switch:

Parameter	Description
Device Alias	The device DNS name or IP address. NetVoyant can be configured to apply names to your discovered devices using the sysName OID. You can also edit the device alias to another value on the device Details tab in the NetVoyant console.
Device Name	The device DNS name or, for unresolvable names, the device IP address.
sysName	The device name as identified in the sysName OID on the device. You can configure NetVoyant to apply names to your discovered devices using the sysName OID.
sysDescr	The device description as identified in the sysDescr OID on the device.
sysObjectId	The device SNMP agent uniquely identifies the device model using the sysObjectId.
sysContact	The device contact person as identified in the sysContact OID on the device.
sysLocation	The device location as identified in the sysLocation OID on the device.
SNMP Capable	The SNMP version that the device SNMP agent supports.
Device Class	The device class, as identified by NetVoyant during discovery.
Device Model	The device model, as identified by NetVoyant during discovery.
SNMP Timeout	The length of time in seconds to wait for an SNMP reply from the device before it considers the request to have timed out. Longer timeouts significantly increase how long it takes to complete the discovery process.
SNMP Retries	The number of times to retry the device for each SNMP profile when an SNMP request times out. More retries significantly increase how long it takes to complete the discovery process.
SNMP Discovery	Indicates how the device is configured for discovery. The following are possible values for SNMP Discovery: <ul style="list-style-type: none"> Extended indicates that the device is set to extended discovery. NetVoyant rediscovers this device's characteristics during its rediscovery process. It also uses information in this device's ARP cache and IP routing table to discover other devices to discover. Enabled indicates that the device is enabled normally for discovery. NetVoyant rediscovers this device's characteristics during its rediscovery process. Disabled indicates that discovery is disabled for the device. NetVoyant does not rediscovers this device's characteristics during its rediscovery process.
Polling Enabled	Indicates whether polling is enabled for the device. When polling is enabled, NetVoyant gathers data for the device.

Parameter	Description
Polling Station	The NetVoyant server that polls the device for SNMP statistics. In a distributed configuration, this is the polling station that polls the device. In a standalone configuration, the Polling Station is the Master console.
Properties	Property information for the selected switch.

Follow these steps:

1. Do one of the following to view the router information and to display a Switch Pages menu:
 - Drill-in to a view that displays the switch.
 - Search for and select the switch.
2. Click Switch Pages, Switch Details.

Viewing Interface Reports

These reports can help you monitor a selected interface, such as a T1 or Ethernet interface on a switch. To view interface reports, you must select an interface in a NetVoyant report or an interface or address search.

The following interface-level reports are available:

Report	Enables you to...	More information
Interface Summary	Assess the health of a selected interface.	“Interface Summary Report” on page 68
Interface Utilization	View trends in usage for a selected interface, such as a T1 or Ethernet interface.	“Interface Utilization Report” on page 69
Interface Volume and Bandwidth	View trends in volume and observed transfer rates on a selected interface, such as a T1 or Ethernet interface.	“Interface Volume and Bandwidth Report” on page 69
Interface Errors and Discards	View trends in inbound and outbound error and discard rates on a selected interface, such as a T1 or Ethernet interface.	“Interface Errors/Discards Report” on page 70
Interface Details	View information about an interface, such as the interface type or speed.	“Interface Details Report” on page 70

Interface Summary Report

The Interface Summary report displays trends in usage, errors, and discards for a selected interface. This report lets you assess the overall health of the interface.

See the following entries to view more information about the views displayed on this report:

- [“Interface Utilization In Trend/Baseline Detail” on page 319](#)
- [“Interface Utilization Out Trend/Baseline Detail” on page 322](#)
- [“Error Rate In Trend” on page 307](#)
- [“Error Rate Out Trend” on page 307](#)

- [“Discard Rate In Trend” on page 304](#)
- [“Discard Rate Out Trend” on page 304](#)

Follow these steps:

1. Perform one of the following actions to get the interface information and to display an Interface Pages menu:
 - Drill-in to a view that displays the interface.
 - Search for and select the interface.
2. Click Interface Pages, Interface Summary.

Interface Utilization Report

The Interface Utilization report displays trends in usage for a selected interface, such as a T1 or Ethernet interface.

See the following entries to view more information about the views displayed on this report:

- [“Interface Utilization In Trend” on page 318](#)
- [“Interface Utilization Out Trend” on page 320](#)
- [“Interface Utilization In Trend Detail” on page 318](#)
- [“Interface Utilization Out Trend Detail” on page 321](#)
- [“Utilization Calendar Chart” on page 339](#)

Follow these steps:

1. Perform one of the following actions to get the interface information and to display an Interface Pages menu:
 - Drill-in to a view that displays the interface.
 - Search for and select the interface.
2. Click Interface Pages, Interface Utilization.

Interface Volume and Bandwidth Report

The Interface Volume and Bandwidth report displays trends in volume and observed transfer rates on a selected interface, such as a T1 or Ethernet interface.

See the following entries to view more information about the views displayed on this report:

- [“Interface Volume In/Out Trend” on page 323](#)
- [“Interface Rate In/Out Trend” on page 317](#)
- [“CBQoS Input Class Map Volume” on page 140](#)
- [“CBQoS Output Class Map Volume” on page 144](#)

Follow these steps:

1. Perform one of the following actions to get the interface information and to display an Interface Pages menu:
 - Drill-in to a view that displays the interface.

- Search for and select the interface.
2. Click Interface Pages, Interface Volume/Bandwidth.

Interface Errors/Discards Report

The Interface Errors/Discards report displays trends in inbound and outbound error and discard rates on a selected interface, such as a T1 or Ethernet interface.

See the following entries to view more information about the views displayed on this report:

- [“Errors In/Out Trend” on page 309](#)
- [“Discards In/Out Trend” on page 306](#)
- [“Errors Out Trend Detail” on page 309](#)
- [“Discard Rate In Trend” on page 304](#)
- [“CBQoS Input Class Map Drops” on page 140](#)
- [“CBQoS Output Class Map Drops” on page 143](#)

Follow these steps:

1. Perform one of the following actions to get the interface information and to display an Interface Pages menu:
 - Drill-in to a view that displays the interface.
 - Search for and select the interface.
2. Click Interface Pages, Interface Errors/Discards.

Interface Details Report

The Interface Details report displays a table of information about a selected interface. This report lets you view information about an interface, such as the interface type or speed, and its IP address.

For more information about the views displayed on this report, see:

- [“Interface Details” on page 315](#)
- [“Address List” on page 298](#)

The following details are displayed for an interface:

Parameter	Description
Name	The name of the interface, which is used to reference the interface in reports.
Description	A description of the interface, which is used to reference the interface in the NetVoyant console.
Device sysName	The device name as identified in the sysName OID on the device. You can configure NetVoyant to apply names to your discovered devices using the sysName OID.
Device sysDescr	The device description as identified in the sysDescr OID on the device. You can configure NetVoyant to apply descriptions to your discovered devices using the sysDescr OID.

Parameter	Description
Polling Enabled	Indicates whether polling is enabled for the device. When polling is enabled, NetVoyant gathers data for the device.
Polling Station	The NetVoyant server that gathers data for the interface. In a standalone configuration, the poller is the Master console. In a distributed configuration, the poller is the polling station that polls the device to which the interface belongs.
ifIndex	The index for the interface's SNMP ifEntry table.
ifDescr	The description of the interface as defined in the SNMP ifEntry table. You can use the ifDescr to dynamically name and apply descriptions to new interfaces.
ifType	An interface type as defined by the ifType field in the SNMP ifEntry table. For example, frame-relay.
Interface Type	A descriptive name for the interface type.
ifPhysAddress	The physical address of an interface according to the SNMP ifEntry table.
Discovered Speed	The interface speed as defined by the ifSpeed field in the SNMP ifEntry table
Poll Rate	The polling group to which the interface belongs. The interface determines how often NetVoyant gathers and rolls up data for the interface.
Properties	Displays custom properties defined for the interface.
Configured Speed In	Displays the inbound speed for the interface, as configured in the NetVoyant console.
Configured Speed Out	Displays the outbound speed for the interface, as configured in the NetVoyant console.

Follow these steps:

1. Do one of the following to view the interface information and to display an Interface Pages menu:
 - Drill-in to a view that displays the interface.
 - Search for and select the interface.
2. Click Interface Pages, Interface Details.

Interface Capabilities Reports

The Interface Capabilities report displays tables of frame-relay, T1 and T3 circuits, and configured CB QoS Class Maps for a selected router. This report lets you view and monitor resources on an interface.

Note: The views displayed in this report depend upon the metrics supported by the selected interface.

See the following entries to view more information about some of the views displayed on this report:

- [“Top Frame Relay Circuits” on page 291](#)
- [“Top T1 Circuits” on page 464](#)
- [“Top T3 Circuits” on page 467](#)
- [“CBQoS Input Policy Class Maps” on page 141](#)

- [“CBQoS Output Policy Class Maps” on page 144](#)
- [“CBQoS Input Class Map Volume” on page 140](#)

Follow these steps:

1. Perform one of the following actions to get the router information and to display an Interface Pages menu:
 - Drill-in to a view that displays the interface.
 - Search for and select the interface.
2. Click Interface Pages, Interface Capabilities.

Viewing CBQoS Class Map Reports

In NetVoyant, the QoS reporting workflow begins with selecting the Class Based QoS page from the Service Level Reporting menu. To view CBQoS Class Map reports, you must select a class map in Class Based QoS report.

The following CBQoS Class Map reports are available:

Report	Enables you to...	More information
CB QoS Class Map report	Provides Top-N views related to a selected class map	“CB QoS Class Map Report” on page 72
Class Map Detail report	Assess the health of a selected interface.	“CBQoS Class Map Detail Report” on page 73
Class Map Capabilities report	View trends in usage for a selected interface, such as a T1 or Ethernet interface.	“Class-Based QoS Class Map Capabilities Report” on page 73

CB QoS Class Map Report

The CB QoS Class Map report provides top-*N* style views (tables and bar charts) displaying the top interfaces for that class. This page is intended to answer the question, “Which interfaces push the most traffic for this class map?”

Click the name of an interface within the displayed views to drill-in to a Class-Based QoS Class Map Detail report for that interface. For example, click a class map name in the CBQoS Output Class Maps table in a Class Based QoS report. Information relating to the selected class map is displayed, and a CB QoS Class Maps menu.

See the following entries to view more information about the views displayed on this report:

- [“Top CBQoS Class Maps Pre-Post” on page 149](#)
- [“Top CBQoS Class Map Pre/Post Policy Utilization” on page 150](#)
- [“Top CBQoS Class Map Pre/Post Policy Volume” on page 151](#)
- [“Top CBQoS Class Map Pre/Post Policy Packets” on page 149](#)
- [“Top CBQoS Class Map Pre/Post Policy Rates” on page 150](#)
- [“Top CBQoS Class Map Dropped Volume” on page 148](#)

- [“Top CBQoS Class Map Dropped Packets” on page 148](#)
- [“Top CBQoS Class Map Drop Rate” on page 147](#)

CBQoS Class Map Detail Report

The CBQoS Class Map Detail report displays detailed pre and post information for policy packets, rates, usage and volume for an individual class map.

See the following entries to view more information about the views displayed on this report:

- [“CBQoS Class Map Pre/Post Policy Volume Trend” on page 139](#)
- [“CBQoS Class Map Pre-Policy Packets Trend” on page 138](#)
- [“CBQoS Class Map Pre/Post Policy Rate Trend” on page 139](#)
- [“CBQoS Class Map Dropped Volume Trend” on page 137](#)
- [“CBQoS Class Map Dropped Packets Trend” on page 136](#)
- [“CBQoS Class Map Dropped Rate Trend” on page 137](#)
- [“CBQoS Class Map No SRAM Buffer Dropped Packets Trend” on page 138](#)
- [“Poll Instance Details” on page 390](#)

Follow these steps:

1. Drill-in to a Class Based QoS view that displays the class map.
2. In the CB QoS Class Map report, click the name of an interface.

For example, click the name of an interface in the Top CBQoS Class Maps Pre-Post view. The CBQoS Class Map Detail report displays information relating to the selected interface or class map and a CBQoS Class Map Pages menu.

Class-Based QoS Class Map Capabilities Report

The Class-Based QoS Class Map Capabilities report displays information about the different capabilities that are configured for an individual class map.

See the following entries to view more information about the views displayed on this report:

- [“Top CBQoS Nested Classmaps” on page 190](#)
- [“Top CBQoS Match Statements” on page 186](#)
- [“Top CBQoS Queueing Statistics” on page 178](#)
- [“Top CBQoS Police Action” on page 189](#)
- [“Top CBQoS Traffic Shaping” on page 198](#)
- [“Top CBQoS RED Volume” on page 196](#)

Follow these steps:

1. Drill down to a Class Based QoS view that displays the class map.
2. In the CB QoS Class Map report, click the name of an interface.

For example, click the name of an interface in the Top CBQoS Class Maps Pre-Post view. The CBQoS Class Map Detail report displays information relating to the selected interface or class map and a CBQoS Class Map Pages menu.

3. Click CBQoS Class Map Pages, Class Map Capabilities.

Viewing CB QoS Policy Reports

These reports can help you to view policy information for a selected interface. To view CBQoS Policy reports, you must select a CB QoS policy in a NetVoyant interface-level report.

Policies are the driving force behind Class-Based QoS. An interface can have an inbound policy, an outbound policy, or both. Class maps, or *queues*, are applied to each directional policy. In some cases, such as enterprise computing environments, only outbound policies are applied to interfaces. For example, WAN interfaces into an MPLS cloud. In other cases, there are policies applied to an interface in both directions, such as those found in most service provider networks.

For each policy, there are associated class maps (queues). These class maps are assigned meaningful names to help identify the traffic they represent or mark, such as “Platinum,” “Realtime,” “Management,” “Gold,” “Best-Effort,” or “Scavenger.” The naming convention for queues and class maps is determined by the organization. However, disciplined organizations consistently apply class map names.

For each class map, traffic policies can be applied that perform QoS functions such as Policing, Traffic Shaping, Weighted Random Early Detect, or Queueing. These policies perform two functions: Congestion Avoidance, or, when congestion does occur, Congestion Management. Both ensure that business critical or latency-sensitive traffic receives priority. Basically, each of these traffic handling mechanisms or policies present different algorithms for deciding which traffic gets priority and how or when to drop or discard traffic. Dropping traffic, especially where TCP is involved, causes TCP senders, such as application servers, to slow down (TCP Slow Start), helping to either avoid or ease congestion.

The following CBQoS policy-level reports are available:

- “Class-Based QoS Set Packet Marking Detail Report” on page 74
- “Class-Based QoS Queueing Detail Report” on page 75
- “Class-Based QoS Match Detail Report” on page 75
- “Class-Based QoS Police Detail Report” on page 76
- “Class-Based QoS Random Early Detection Detail Report” on page 76
- “Class-Based QoS Traffic Shaping Detail Report” on page 77

Class-Based QoS Set Packet Marking Detail Report

The Class-Based QoS Set Packet Marking Detail report displays a packet count trend for those packets marked by the CBQoS Set feature.

Follow these steps:

1. Access the Top CBQoS Packets view.

The only way to drill-in to the CBQoS Set Detail report is to access the Top CBQoS Set Packets view, which is not included in one of the standard reports. You can add this view to the Router Capabilities report page when your router has the Set Policy configured in the Class Map.

For more information, see [“Editing the Contents in a Report Page” on page 22](#).

2. Click the name of a Set Marking policy.

The Class-Based QoS Set Packet Marking Detail report displays information relating to the selected Set Marking policy and the CBQoS Set Pages menu.

Class-Based QoS Queueing Detail Report

Queueing provides queues for class maps given a size, typically in bytes, for each queue. When a bandwidth is associated with the queue, traffic in excess of the bandwidth is discarded. Also, traffic is discarded or dropped when the queue is full. NetVoyant also uses the bandwidth statement for the associated queue to compute usage per class map.

The Class-Based Queueing Detail report is valuable to network engineers because it includes trend-based views over time for queue mechanism details for an interface, policy direction, or queue. These views display usage, rate, volume trends, discards, and queue depth over time.

See the following entries to view more information about the views displayed on this report:

- [“CBQoS Detailed Queue Discarded Packets” on page 191](#)
- [“CBQoS Detailed Queue Depth” on page 191](#)
- [“CBQoS Detailed Queue Utilization” on page 192](#)
- [“CBQoS Detailed Queue Discarded Volume” on page 192](#)

Follow these steps:

1. Drill-in to a Router Capabilities Report for a selected router that has a configured Queueing policy.
2. Scroll down to the Top CBQoS Queueing Statistics view.
3. Click a the name of a Queueing policy.

The Class-Based QoS Queueing Detail report displays information relating to the selected policy and the CBQoS Queueing Pages menu.

Class-Based QoS Match Detail Report

Match command statements in the class map define the criteria by which the router classifies packets into specific classes. Packets arriving at either the input or output interface (depending on how the service-policy command is configured) are compared to the match criteria of a class map to determine whether the packet belongs to that class.

The Class-Based QoS Match Detail report displays trend views for matching command statements so that network engineers can see the impact that changes in the configuration have had in terms of packet classification.

See the following entries to view more information about the views displayed on this report:

- [“CBQoS Match Pre-Policy Volume Trend” on page 186](#)
- [“CBQoS Match Pre-Policy Packets Trend” on page 185](#)
- [“CBQoS Match Pre-Policy Rate Trend” on page 185](#)

Follow these steps:

1. Drill-in to a Router Capabilities Report for a selected router that has a configured Match policy.
2. Scroll down to the Top CBQoS Match Statistics view.
3. Click a the name of a Match policy.

The Class-Based QoS Match Detail report displays information relating to the selected policy and the CBQoS Match Pages menu.

Class-Based QoS Police Detail Report

Policing policies mark traffic based on the classmap as being in Conformance, Exceeding, or in Violation of the rate or CIR assigned to each specific class map. NetVoyant uses the rate to compute the usage per class map. Configuration of the router determines when traffic is to be dropped when it is in violation of the rate setting.

The Class-Based QoS Police Detail report displays trend views for policing policies demonstrating traffic for an interface/policy direction/class in terms of being in conformance, exceeding, or in violation of the police policy configuration. Using trend views, network engineers can see the impact that changes in the police configuration have had in terms of traffic being within or exceeding traffic settings.

See the following entries to view more information about the views displayed on this report:

- [“CBQoS Police Volume Trend” on page 188](#)
- [“CBQoS Police Packets Trend” on page 188](#)

Follow these steps:

1. Drill-in to a Router Capabilities Report for a selected router that has a configured Police policy.
2. Scroll down to the Top CBQoS Police Statistics view.
3. Click a the name of a Match policy.

The Class-Based QoS Police Detail report displays information relating to the selected policy and the CBQoS Police Pages menu.

Class-Based QoS Random Early Detection Detail Report

Weighted Random Early Detection is a queuing strategy that can perform random drops when a minimum threshold is crossed as determined by queue size. When the amount of traffic in the queue starts to exceed the maximum threshold for the queue, the WRED mechanism performs “tail” drops.

The RED Detail report is valuable to network engineers because it includes trend-based views over time for the Weighted Random Early Detection QoS mechanism. The queue size trend view is normally fairly static and changes only when the policy is changed. The other views display the

amount of traffic transmitted over the queue (xmit), ECN (Explicit Congestion Notification) marking, and both random and tail drops. This data is useful for tuning the RED minimum and maximum threshold settings and queue size for each class.

See the following entries to view more information about the views displayed on this report:

- [“CBQoS RED Volume Trend” on page 195](#)
- [“CBQoS RED Packets Trend” on page 194](#)
- [“CBQoS RED Queue Size Trend” on page 195](#)

Follow these steps:

1. Drill-in to a Router Capabilities Report for a selected router that has a configured RED policy.
2. Scroll down to the Top CBQoS Random Early Detect (RED) Volume view or the Top CBQoS Random Early Detect (RED) Packets view.
3. Click a the name of a RED policy.

The Class-Based QoS Random Early Detection Detail report displays information relating to the selected policy and the CBQoS RED Pages menu.

Class-Based QoS Traffic Shaping Detail Report

Traffic shaping is somewhat similar to queuing in that a queue size is associated with Traffic Shaped Queues, and traffic can be delayed in the queue. When the queue begins to fill, traffic is dropped.

The Traffic Shaping Detail report is valuable to network engineers because it includes trend-based views over time for the Traffic Shaping mechanism details for an interface/policy direction/queue. These views show the queue size (normally this is pretty flat unless there was a change in the policy) and the traffic for the queue that was delayed or dropped in terms of volume or packets.

See the following entries to view more information about the views displayed on this report:

- [“CBQoS Traffic Shaping Volume Trend” on page 198](#)
- [“CBQoS Set Packets Trend” on page 203](#)
- [“CBQoS Traffic Shaping Queue Size Trend” on page 197](#)

Follow these steps:

1. Drill-in to a Router Capabilities Report for a selected router that has a configured Traffic Shaping policy.
2. Scroll down to the Top CBQoS Traffic Shaping view.
3. Click a the name of a Traffic Shaping policy.

The Class-Based QoS Traffic Shaping Detail report displays information relating to the selected policy and the CBQoS Traffic Shaping Pages menu.

Viewing IP SLA Operations Reports

These reports can help you to view information for IP SLA operation types and IP SLA operations on individual interfaces. To view IP SLA Operation reports, you must select an IP SLA operation in the higher-level IP SLA report.

The following IP SLA test-level reports are available:

Report	Enables you to...	More information
IP SLA Operations report	Observe summary information for an IP SLA operation type	“IP SLA Operations Report” on page 78
DHCP Response report	Observe round-trip time to get an IP address from a DHCP server.	“DHCP Response Report” on page 79
DNS Echo Response report	Observe results from DNS look-up time tests.	“DNS Echo Response Report” on page 79
FTP Response report	Observe results from FTP server performance tests.	“FTP Response Report” on page 80
HTTP Echo Response report	Observe the round-trip time to retrieve a web page.	“HTTP Echo Response Report” on page 80
TCP Connect report	Observe the time taken to connect to a target device with TCP.	“TCP Connect Report” on page 81
ICMP Echo Response report	Observe the round-trip delay for the full path.	“ICMP Echo Response Report” on page 81
Path Echo Response report	Observe the round-trip delay and hop-by-hop round-trip delay.	“Path Echo Response Report” on page 82
UDP Echo Response report	Observe results from server and IP application performance and connectivity testing.	“UDP Echo Response Report” on page 82
Enhanced UDP for Voice (VoIP) report	Observe results from voice and data network performance and general IP performance testing.	“Enhanced UDP For Voice (VoIP) Report” on page 83

IP SLA Operations Report

The IP SLA Operations report provides a high-level summary of an IP SLA operation type.

See the following entries to view more information about the views displayed on this report:

- [“IP SLA Summary” on page 365](#)
- [“Top IP SLA RTT Deviation From Norm” on page 375](#)
- [“Top IP SLA Over Threshold” on page 374](#)
- [“Top IP SLA Errored Operations” on page 372](#)
- [“IP SLA Operations List” on page 364](#)

Follow these steps:

1. Click Service Level Reporting, IP SLA to open the IP SLA report.
2. In the IP SLA Operations by Rtt Type view, click an IP SLA operation name.

The names of the operation types are displayed in blue to indicate that they provide links that you can use to access more detailed information.

The IP SLA Operations report is displayed, with views rendered for the selected IP SLA test type.

DCHP Response Report

A DHCP test measures round-trip time to get an IP address from a DHCP server. A laggy DHCP server leaves devices needing addresses offline until they can get a response. The lag can ripple down through dependencies on these devices. Use the DHCP Response report to identify these situations.

See the following entries to view more information about the views displayed on this report:

- [“DHCP Response” on page 346](#)
- [“DHCP Round Trip Time Trend vs. Baseline” on page 347](#)
- [“DHCP Errors” on page 345](#)

Follow these steps:

1. Drill-in to an IP SLA Operations view that displays the DHCP operation type.
2. Click DHCP in the view.
3. In the IP SLA Operations report, click the name of a test in one of the views.

For example, from the IP SLA Operations report, scroll to the Top IP SLA RTT Deviation From Norm view. Click one of the tests in the Name column in the view.

The DHCP Response report and the DHCP Echo Pages menu are displayed.

DNS Echo Response Report

A DNS test measures DNS look-up time. A slow DNS response time reduces the speed for anything that needs IP address resolution. A server or client using a web address (URL) rather than an IP string may have to wait on the DNS server. This can seriously affect network performance. Use the DNS Echo Response report to identify and troubleshoot these situations.

See the following entries to view more information about the views displayed on this report:

- [“DNS Response” on page 349](#)
- [“DNS Round Trip Time Trend vs. Baseline” on page 351](#)
- [“DNS Errors” on page 349](#)

Follow these steps:

1. Drill-in to an IP SLA Operations view that displays the DNS operation type.
2. Click DNS in the view.
3. In the IP SLA Operations report, click the name of a DNS test in one of the views.

For example, from the IP SLA Operations report, scroll to the Top IP SLA RTT Deviation From Norm view. Click one of the tests in the Name column in the view.

The DNS Echo Response report and the DNS Echo Pages menu are displayed.

FTP Response Report

An FTP test measures FTP server performance. The FTP Response report provides valuable information about FTP response time, round trip time, and errors.

See the following entries to view more information about the views displayed on this report:

- [“FTP Response” on page 353](#)
- [“FTP Round Trip Time Trend vs. Baseline” on page 354](#)
- [“FTP Errors” on page 352](#)

Follow these steps:

1. Drill-in to an IP SLA Operations view that displays the FTP operation type.
2. Click FTP in the view.
3. In the IP SLA Operations report, click the name of a test in one of the views.

For example, from the IP SLA Operations report, scroll to the Top IP SLA RTT Deviation From Norm view. Click one of the tests in the Name column of the view.

The FTP Response report and the FTP Pages menu are displayed.

HTTP Echo Response Report

An HTTP echo test measures the round-trip time to retrieve a web page. The HTTP Echo Response report provides valuable information about testing the functionality of web servers, including response time, round trip time, and errors.

See the following entries to view more information about the views displayed on this report:

- [“HTTP Echo Response” on page 356](#)
- [“HTTP Echo Round Trip Time Trend vs. Baseline” on page 358](#)
- [“HTTP Echo Errors” on page 356](#)
- [“HTTP RTT Detail” on page 358](#)

Follow these steps:

1. Drill-in to an IP SLA Operations view that displays the HTTP operation type.
2. Click HTTP in the view.
3. In the IP SLA Operations report, click the name of a test in one of the views.

For example, from the IP SLA Operations report, scroll to the Top IP SLA RTT Deviation From Norm view. Click one of the tests in the Name column in the view.

The HTTP Echo Response report and the HTTP Echo Pages menu are displayed.

TCP Connect Report

A TCP connect test measures the time taken to connect to a target device with TCP. TCP response time is key to network application performance. The TCP Connect report provides valuable information about response time, round trip time, and errors.

See the following entries to view more information about the views displayed on this report:

- [“TCP Connect Response” on page 370](#)
- [“TCP Connect Round Trip Time Trend vs. Baseline” on page 372](#)
- [“TCP Connect Errors” on page 370](#)

Follow these steps:

1. Drill-in to an IP SLA Operations view that displays the HTTP operation type.
2. Click TCP Connect in the view.
3. In the IP SLA Operations report, click the name of a test in one of the views.

For example, from the IP SLA Operations report, scroll to the Top IP SLA RTT Deviation From Norm view. Click one of the tests in the Name column in the view.

The TCP Connect report and the TCP Connect Pages menu are displayed.

ICMP Echo Response Report

An ICMP echo test measures the round-trip delay for the full path. A slow ICMP response time point to a slow ping functionality, which indicates that there is something to be addressed by a network engineer. The ICMP Echo Response report provides valuable information about response time, round trip time, and errors.

See the following entries to view more information about the views displayed on this report:

- [“ICMP Echo Response Gauges” on page 360](#)
- [“ICMP Echo Round Trip Time Trend vs. Baseline” on page 362](#)
- [“ICMP Echo Completion Summary” on page 359](#)
- [“ICMP Echo Errors” on page 360](#)

Follow these steps:

1. Drill-in to an IP SLA Operations view that displays the ICMP Echo operation type.
2. Click ICMP Echo in the view.
3. In the IP SLA Operations report, click the name of a test in one of the views.

For example, from the IP SLA Operations report, scroll to the Top IP SLA RTT Deviation From Norm view. Click one of the tests in the Name column in the view.

The ICMP Echo Response report and the ICMP Echo Pages menu are displayed.

Path Echo Response Report

A path echo test measures the round-trip delay and hop-by-hop round-trip delay. It collects the statistics for each hop along the path and determines this hop-by-hop response time between a Cisco router and an IP device on the network by discovering the path using the traceroute facility. The Path Echo Response report provides valuable information, including a path comparison trend and the top paths.

See the following entries to view more information about the views displayed on this report:

- [“Path Comparison Trend” on page 368](#)
- [“Top Paths” on page 376](#)

Follow these steps:

1. Drill-in to an IP SLA Operations view that displays the Path Echo operation type.
2. Click Path Echo in the view.
3. In the IP SLA Operations report, click the name of a test in one of the views.

For example, from the IP SLA Operations report, scroll to the Top IP SLA RTT Deviation From Norm view. Click one of the tests in the Name column in the view.

The Path Echo Response report and the Path Echo Pages menu are displayed.

UDP Echo Response Report

A UDP echo test measures server and IP application performance and connectivity testing. More specifically, it measures end-to-end response time between a Cisco router and devices using IP. UDP is a network layer (Layer 3) Internet protocol that is used for many IP services. UDP echo is used to measure response times and test end-to-end connectivity. The UDP Echo Response report provides valuable information that can be useful in troubleshooting issues with business-critical applications by determining the round-trip delay times and testing connectivity to both Cisco and non-Cisco devices.

See the following entries to view more information about the views displayed on this report:

- [“UDP Echo Response” on page 378](#)
- [“UDP Echo Round Trip Time Trend vs. Baseline” on page 378](#)
- [“VoIP Errors” on page 381](#)

Follow these steps:

1. Drill-in to an IP SLA Operations view that displays the UDP Echo operation type.
2. Click UDP Echo in the view.
3. In the IP SLA Operations report, click the name of a test in one of the views.

For example, from the IP SLA Operations report, scroll to the Top IP SLA RTT Deviation From Norm view. Click one of the tests in the Name column in the view.

The UDP Echo Response report and the UDP Echo Pages menu are displayed.

Enhanced UDP For Voice (VoIP) Report

A UDP jitter (VoIP) test measures voice and data network performance and was primarily designed to diagnose network suitability for real-time traffic applications such as voice over IP (VoIP), video over IP, or real-time conferencing. Jitter means inter-packet delay variance, and for delay-sensitive networks like VoIP, positive jitter values are undesirable, and a jitter value of 0 is ideal.

The UDP jitter operation also includes the data returned by the UDP operation, the UDP jitter operation can be used as a multipurpose data gathering operation. The generated packets carry packet sending sequence and receiving sequence information, and sending and receiving time stamps from the source and the operational target. Based on these, UDP jitter operations are capable of measuring the following:

- Per-direction jitter (source to destination and destination to source)
- Per-direction packet-loss
- Per-direction delay (one-way delay)
- Round-trip delay (average round-trip time)

The Enhanced UDP for Voice (VoIP) report provides valuable, per-direction data so that you can more readily identify where congestion or other problems are occurring in the network.

See the following entries to view more information about the views displayed on this report:

- [“VoIP Jitter/Round Trip Time” on page 381](#)
- [“Jitter: Source to Destination” on page 367](#)
- [“Jitter: Destination to Source” on page 366](#)
- [“Mean Opinion Score” on page 367](#)
- [“VoIP Errors” on page 381](#)
- [“VoIP Round Trip Time” on page 382](#)

Follow these steps:

1. Drill-in to an IP SLA Operations view that displays the VoIP operation type.
2. Click VoIP Jitter in the view.
3. In the IP SLA Operations report, click the name of a test in one of the views.

For example, from the IP SLA Operations report, scroll to the Top IP SLA RTT Deviation From Norm view. Click one of the tests in the Name column in the view.

The Enhanced UDP for Voice (VoIP) report and the eUDP Jitter Pages menu are displayed.

Viewing Cisco Performance Reports

Use the Cisco Performance reports to remotely monitor the memory pool statistics of all physical entities, such as line cards and route processors, in a managed device. This is particularly useful for high-end routers that have a large number of line cards.

The following Cisco Performance-level reports are available:

- [“Cisco Memory Pool Performance Report” on page 84](#)

- [“Cisco Switch Performance Report” on page 84](#)

Cisco Memory Pool Performance Report

The Cisco Memory Pool Performance report displays trends in usage for a selected memory pool on a Cisco router. This report lets you assess the usage of a Cisco router’s memory pool.

See the following entries to view more information about the views displayed on this report:

- [“Cisco Memory Pool Utilization” on page 407](#)
- [“Cisco Memory Pool Trend” on page 406](#)
- [“Poll Instance Details” on page 390](#)

Follow these steps:

1. Drill-in to a Router Capabilities report that displays information for a router that is configured for Cisco Memory Pool.
2. Click the name of the memory configuration name in the Top Cisco Memory view.
The Cisco Memory Pool Performance report and the Cisco Memory Pool Pages menu are displayed.

Cisco Switch Performance Report

The Cisco Switch Performance report displays trends in usage for a backplane on a Cisco switch. This report lets you assess the usage of a Cisco switch’s backplane.

See the following entries to view more information about the views displayed on this report:

- [“Cisco Switch Backplane Utilization Trend” on page 410](#)
- [“Poll Instance Details” on page 390](#)

Follow these steps:

1. Drill-in to a Device Capabilities report that displays information for a switch that is configured for Cisco Switch Backplane.
2. Click the name of the switch backplane configuration name in the Top Cisco Switch Backplane Utilization view.
The Cisco Switch Performance report and the Cisco Switch Backplane menu are displayed.

Viewing Frame Relay Reports

These reports can help you to view information for Frame Relay circuits on interfaces. To view Frame Relay reports, you must select a Frame Relay circuit in the top-level Frame Relay Summary report.

The following Frame Relay circuit-level reports are available:

Report	Enables you to...	More information
Frame Relay Summary report	View usage in/out trends, and congestion and frame rate trends.	“Frame Relay Summary Report” on page 85
Frame Relay Performance report	View information about the frame relay index trends.	“Frame Relay Performance Report” on page 86
Frame Relay Utilization report	View information about frame relay usage.	“Frame Relay Utilization Report” on page 86
Frame Relay Bandwidth report	View information about frame relay bandwidth.	“Frame Relay Bandwidth Report” on page 86
Frame Relay Congestion report	View information about frame relay congestion.	“Frame Relay Congestion Report” on page 87
Frame Relay Volume report	View information about frame relay volume.	“Frame Relay Volume Report” on page 87
Frame Relay Details report	View detailed information about a frame relay circuit.	“Frame Relay Details Report” on page 87

Frame Relay Summary Report

The Frame Relay Summary report provides a dashboard for accessing the other Frame Relay circuit-level pages. It also provides valuable overview information about Frame Relay usage, congestion and rates on your network.

See the following entries to view more information about the views displayed on this report:

- “Frame Relay Utilization In Trend” on page 283
- “Frame Relay Utilization Out Trend” on page 285
- “Frame Relay Congestion Trend” on page 273
- “Input/Output Frame Rate Trend” on page 288

Follow these steps:

1. Open a top-level Frame Relay Summary report from the Management menu.
2. On the top-level report, click the name of a Frame Relay circuit.

For example, scroll to the Top Frame Relay Circuits table view and click one of the circuits in the Name column. The Frame Relay Summary report for the individual circuit and the Frame Relay Pages menu are displayed.

Frame Relay Performance Report

The Frame Relay Performance report provides a performance index for a frame relay circuit. For more information, see: [“Frame Relay Performance Index Trend” on page 276](#).

Follow these steps:

1. Open a top-level Frame Relay Summary report from the Management menu.
2. On the top-level report, click the name of a Frame Relay circuit.
For example, scroll to the Top Frame Relay Circuits table view and click one of the circuits in the Name column. The Frame Relay Summary report for the individual circuit and the Frame Relay Pages menu are displayed.
3. Click Frame Relay Pages, Frame Relay Performance.

Frame Relay Utilization Report

The Frame Relay Utilization report provides valuable usage trend information for a frame relay circuit.

See the following entries to view more information about the views displayed on this report:

- [“Frame Relay Utilization In/Out Trend” on page 284](#)
- [“Frame Relay Utilization In Trend” on page 283](#)
- [“Frame Relay Utilization Out Trend” on page 285](#)
- [“Frame Relay Utilization In Trend Detail” on page 284](#)
- [“Frame Relay Utilization Out Trend Detail” on page 286](#)

Follow these steps:

1. Open a top-level Frame Relay Summary report from the Management menu.
2. On the top-level report, click the name of a Frame Relay circuit.
For example, scroll to the Top Frame Relay Circuits table view and click one of the circuits in the Name column. The Frame Relay Summary report for the individual circuit and the Frame Relay Pages menu are displayed.
3. Click Frame Relay Pages, Frame Relay Utilization.

Frame Relay Bandwidth Report

The Frame Relay Bandwidth report provides valuable bandwidth rate information for a frame relay circuit.

For more information, see: [“Input/Output Frame Rate Trend” on page 288](#).

Follow these steps:

1. Open a top-level Frame Relay Summary report from the Management menu.
2. On the top-level report, click the name of a Frame Relay circuit.

For example, scroll to the Top Frame Relay Circuits table view and click one of the circuits in the Name column. The Frame Relay Summary report for the individual circuit and the Frame Relay Pages menu are displayed.

3. Click Frame Relay Pages, Frame Relay Bandwidth.

Frame Relay Congestion Report

The Frame Relay Congestion report provides valuable congestion trend information for a frame relay circuit.

See the following entries to view more information about the views displayed on this report:

- [“Frame Relay Congestion Trend” on page 273](#)
- [“Frame Relay Congestion Rate Trend” on page 272](#)

Follow these steps:

1. Open a top-level Frame Relay Summary report from the Management menu.
2. On the top-level report, click the name of a Frame Relay circuit.

For example, scroll to the Top Frame Relay Circuits table view and click one of the circuits in the Name column. The Frame Relay Summary report for the individual circuit and the Frame Relay Pages menu are displayed.

3. Click Frame Relay Pages, Frame Relay Congestion.

Frame Relay Volume Report

The Frame Relay Volume report provides valuable volume information for a frame relay circuit.

For more information, see: [“Frame Relay Volume Trend” on page 287](#).

Follow these steps:

1. Open a top-level Frame Relay Summary report from the Management menu.
2. On the top-level report, click the name of a Frame Relay circuit.

For example, scroll to the Top Frame Relay Circuits table view and click one of the circuits in the Name column. The Frame Relay Summary report for the individual circuit and the Frame Relay Pages menu are displayed.

3. Click Frame Relay Pages, Frame Relay Volume.

Frame Relay Details Report

The Frame Relay Details report provides detailed information for a frame relay circuit.

For more information, see: [“Frame Relay Details” on page 274](#).

Follow these steps:

1. Open a top-level Frame Relay Summary report from the Management menu.
2. On the top-level report, click the name of a Frame Relay circuit.

For example, scroll to the Top Frame Relay Circuits table view and click one of the circuits in the Name column. The Frame Relay Summary report for the individual circuit and the Frame Relay Pages menu are displayed.

3. Click Frame Relay Pages, Frame Relay Details.

Viewing T1/T3 Performance Reports

These reports can help you to view information for Frame Relay circuits on interfaces. To view T1/T3 Performance reports, you must select a T1 or T3 circuit in the top-level WAN Summary report.

T1 Performance Report

The T1 Performance report provides valuable information for T1 WAN connections, which are critically important links on a network.

See the following entries to view more information about the views displayed on this report:

- [“T1 % Errored Seconds Trend” on page 454](#)
- [“T1 % Coding Violations Trend” on page 455](#)

To view a T1 Performance report:

1. Open a top-level WAN Summary report from the Management menu.
2. On the top-level report, click the name of a T1 circuit.

For example, scroll to the Top T1 Circuits table view and click one of the circuits in the Name column. The T1 Performance report for the individual circuit and the T1 Pages menu are displayed.

T3 Performance Report

The T3 Performance report provides valuable information for T3 WAN connections, which are critically important links on a network.

See the following for information about the view displayed on this report:

[“T3 % Errored Seconds Trend” on page 457](#)

Follow these steps:

1. Open a top-level WAN Summary report from the Management menu.
2. On the top-level report, click the name of a T3 circuit.

For example, scroll to the Top T3 Circuits table view and click one of the circuits in the Name column. The T1 Performance report for the individual circuit and the T3 Pages menu are displayed.

Viewing the Protocol Summary and Detail Reports

These reports can help you to view information for network protocols and the associated traffic on your network. To view the Protocol Summary and Protocol Detail reports, you must select a specific protocol in the top-level Protocol Distribution report. When you click an NBAR protocol, NetVoyant displays a Protocol Summary report for the item. When you click an RMON protocol, it displays a Protocol Detail report for the item.

Protocol Summary Report

The Protocol Summary report provides valuable information for investigating a link or device that is over threshold.

See the following entries to view more information about the views displayed on this report:

- [“Top Interfaces for Protocol \(NBAR\)” on page 389](#)
- [“Top Interface Utilization \(NBAR\)” on page 388](#)
- [“Top Interface Volume \(NBAR\)” on page 389](#)
- [“Top Interface Packets \(NBAR\)” on page 387](#)
- [“Top Interface Rates \(NBAR\)” on page 388](#)

Follow these steps:

1. Open a top-level Protocol Distribution report from the Operations menu.
2. On the top-level report, click the name of a protocol.

For example, scroll to the Top Protocols In (NBAR) view and click one of the protocols in the Name column. The Protocol Summary report for the individual protocol type and the Protocol Summary menu are displayed.

Protocol Detail Report

The Protocol Summary report provides detailed information about traffic for a selected protocol over a selected interface.

See the following entries to view more information about the views displayed on this report:

- [“Protocol Utilization \(NBAR\)” on page 386](#)
- [“Protocol Volume” on page 387](#)
- [“Top Interface Packets \(NBAR\)” on page 387](#)
- [“Top Interface Rates \(NBAR\)” on page 388](#)

Follow these steps:

1. Open a top-level Protocol Distribution report from the Operations menu.
2. On the top-level report, click the name of a protocol.

For example, scroll to the Top Protocols In (NBAR) view and click one of the protocols in the Name column. The Protocol Summary report for the individual protocol type and the Protocol Summary menu are displayed.

3. In the Protocol Summary report, click an interface.

For example, go to the Top Interfaces for Protocol view at the top of the report and click one of the interfaces in the Name column. The Protocol Detail report for the individual protocol/interface and the Protocol Pages menu are displayed.

Viewing the Ethernet Performance Report

The Etherstats Pages menu is displayed when you select an ethernet interface. This menu provides access to the Ethernet Performance reports, which provides views to demonstrate trends in usage and packet size for an Ethernet interface.

See the following entries to view more information about the views displayed on this report:

- “Ethernet Utilization Trend Detail” on page 259
- “Packet Size Distribution” on page 261

Follow these steps:

1. Drill-in to an Ethernet view that displays the Ethernet interface.

For example, click an Ethernet interface in the Top Ethernet Error Details view in the LAN Summary report. Information relating to the selected Ethernet interface is displayed, and an Etherstats Pages menu.

2. Click Etherstats Pages, Ethernet Performance.

Working with Custom Reports and Views

Use the Custom View Wizard to design custom views from the data that NetVoyant collects from your devices. After you create views, add them to custom report pages on your own My Pages menu or on shared menus in the NetVoyant user interface.

This chapter covers the following topics:

- “Using the My Pages Menu” on page 92
- “Selecting Views for the Report Page Context” on page 94
- “Creating and Editing Custom Views” on page 96
- “Working with View Types and Styles” on page 100
- “Adding Other Elements to Customize Views” on page 120

USING THE MY PAGES MENU

The My Pages menu lets you collect private report pages that contain report views that are most useful to you. You can add the pre-built, standard report pages to this personalized menu, and custom report pages.

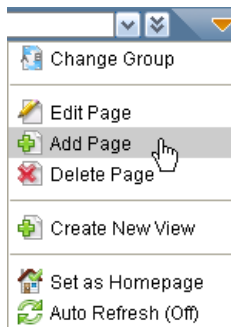
Adding Report Pages to My Pages

Custom report pages can be added and edited on your My Pages menu. When you create a report page, you can add one or more of the standard NetVoyant views or include custom views you created.

Note: A NetVoyant administrator can also add a report page to your My Pages menu for you. Contact your NetVoyant administrator for more information.

Follow these steps:

1. Perform one of the following tasks:
 - Select an existing report page from My Pages.
 - If your My Pages menu does not include report pages, select Add Page from the menu and skip step 2.
2. Click the orange arrow and select Add Page.



This displays the Add Page page.

3. You can edit the following parameters:

Parameter	Description
Menu Title	Edit the title for the report as it is displayed in the menu bar.
Page Title	Edit the title displayed at the top of the report page.

4. At the bottom of the Add Page page, select a context to display the views in that context.
5. For example, select IP SLA to display all views in the IP SLA context.
6. Select the Custom Views context to view all custom views available to you.
7. Click a view in the list and drag it to a page layout section on the right side of the Add Page page.
8. Repeat steps 4 and 5 to add more views to the report page.

You can add new views, copy views from other pages, or remove views from the report page after you save the page. For more information, see [“Editing the Contents in a Report Page”](#) on page 22, [“Copying a View”](#) on page 21, and [“Removing a View from a Report Page”](#) on page 22.

- Click Save to add the report page to the My Pages menu.

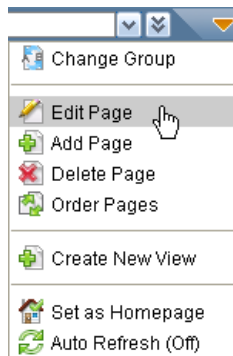
Editing Report Pages in My Pages

You can change the layout and add or remove views from a report page residing in your My Pages menu.

Follow these steps:

- View the report page.
- Click the orange arrow and select Edit Page.

This displays the Edit Page Layout page.



- You can edit the following parameters:

Parameter	Description
Menu Title	Edit the title for the report as it is displayed in the menu bar.
Page Title	Edit the title displayed at the top of the report page.

- At the bottom of the Edit Page Layout page, you can perform the following actions:

Task	Description
Add a view	To add a view to the report page, select a context to display the views related to that context. For example, select IP SLA to display all views in the IP SLA context. Note: Select the Custom Views context to view all custom views available to you. Click a view in the list and drag it to a section on the right side of the Edit Page Layout page.
Remove a view	To remove a view from the report page, click Remove next to a view. Note: When you edit the settings for the view on the report page, NetVoyant deletes these custom settings when it removes the view.
Move a view	To move a view on the report page, click a view in the list and drag it to a different page layout section on the right side of the Edit Page Layout page.

- Click Save.

This updates the report page.

SELECTING VIEWS FOR THE REPORT PAGE CONTEXT

When you design your report pages, you can add views that are valid for the current page context. The page context determines the granularity of the reported data, and what view can be displayed for that data.

NetVoyant uses the following contexts to gather and aggregate data:

Context	Description
CBQoS Class Map	This context is active when you are viewing information specific to a selected CB QoS class map.
CBQoS Group by Class Map	This context is active when you are viewing information specific to a selected CB QoS group.
CBQoS IPHC	This context is active when you are viewing information specific to a selected CB QoS IPHC policy.
CBQoS Match	This context is active when you are viewing information specific to a selected CB QoS Match Statement policy.
CBQoS Police	This context is active when you are viewing information specific to a selected CB QoS Policing policy.
CBQoS Police Color	This context is active when you are viewing information specific to a selected CB QoS Police Color policy.
CBQoS Queueing	This context is active when you are viewing information specific to a selected CB QoS Queueing policy.
CBQoS RED	This context is active when you are viewing information specific to a selected CB QoS RED policy.
CBQoS Set	This context is active when you are viewing information specific to a selected CB QoS Set policy.
CBQoS Traffic Shaping	This context is active when you are viewing information specific to a selected CB QoS Traffic Shaping policy.
Cisco Memory Pool	This context is active when you are viewing information specific to a selected Cisco Memory Pool.
Device	This context is active when you are viewing information specific to a selected device.
Ethernet	This context is active when you are viewing information specific to a selected ethernet circuit.
Frame Relay	This context is active when you are viewing information specific to a selected frame relay circuit.
Group	This context is active when you are viewing information specific to a selected group.
Interface	This context is active when you are viewing information specific to a selected interface.
IP SLA	This context is active when you are viewing information specific to IP SLA operations.

Context	Description
• DHCP	This context is active when you are viewing information specific to a selected DHCP IP SLA operation.
• DNS	This context is active when you are viewing information specific to a selected DNS IP SLA operation.
• HTTP	This context is active when you are viewing information specific to a selected HTTP IP SLA operation.
• IPSLA Jitter	This context is active when you are viewing information specific to a selected IP SLA Jitter operation.
• TCP Connect	This context is active when you are viewing information specific to a selected TCP Connect IP SLA operation.
• UDP Echo	This context is active when you are viewing information specific to a selected UDP Echo IP SLA operation.
• ICMP Echo	This context is active when you are viewing information specific to a selected ICMP Echo IP SLA operation.
• Path Echo	This context is active when you are viewing information specific to a selected Path Echo IP SLA operation.
• FTP	This context is active when you are viewing information specific to a selected FTP IP SLA operation.
Protocol	This context is active when you are viewing information specific to a selected protocol.
Protocol Group	This context is active when you are viewing information specific to a selected protocol group.
Router	This context is active when you are viewing information specific to a selected router.
Server	This context is active when you are viewing information specific to a selected server.
Switch	This context is active when you are viewing information specific to a selected switch.
T1	This context is active when you are viewing information specific to a selected T1 circuit.
T3	This context is active when you are viewing information specific to a selected T3 circuit.

CREATING AND EDITING CUSTOM VIEWS

NetVoyant includes an extensive list of predefined views suited for a wide range of reporting needs. You can also create custom views. This is particularly useful when there are compiled MIBs in NetVoyant and datasets were added to support them. In order to view the data collected for these datasets, you must create custom views and specify the metrics and expressions.

Note: In an unregistered NetVoyant system, only Administrator or Designer user account types can edit views or create custom views. When your NetVoyant system is registered with NetQoS Performance Center as a data source, only user accounts with an Administrator or Power User privilege can edit views or create custom views.

Viewing, Editing, or Deleting Custom Views

To determine the need for a custom view, browse the list of existing custom views that are available. As an Administrator or a Designer, you can delete views that are not needed or make modifications to those in the list. Custom view modifications can be persisted for other Administrator and Designer user accounts, and reflected in reports that include a modified view. You cannot delete a custom view that is included in a report.

Follow these steps:

1. Click Report Pages, Administration.

The Administration page opens.

2. Under User Settings, click Custom Views.

This displays a list of all custom views available to your user account.

- To open the Custom View Wizard, click New.
- To edit a view, select a view and click Edit.
- To delete a view, select a view and click Delete.

Note: As an Administrator or Designer user, you can add custom views to a report page in the My Pages menu. While editing the report page, select the Custom Views context to view all custom views available to you.

Using the Custom View Wizard

The Custom View Wizard steps you through the process of creating a new custom view using a NetVoyant dataset.

Follow these steps:

1. Click Report Pages, Administration.

2. Under User Settings, select Custom Views.

This opens the Custom Views page, which lists custom views configured for your NetVoyant system.

3. Click New.

This opens the Custom View Wizard with the Choose Name and Type page as the first page in the wizard.

4. Edit the following parameters on this page:

Parameter	Description
View Name	Enter the name of the view. NetVoyant uses this name as the view title on report pages.
Group View Types	Select a view type, which determines what type of data in the view and how it is displayed. For more information, see “ NetVoyant View Types ” on page 100. Note: The view types available are dependent on the report page (context) from which you access the Custom View Wizard.
View Description	<i>(Optional)</i> Enter a description of the view to help other Administrator or Designer users to know what the view contains and its purpose.
View Category	Select the View Category for the report view, which lets you select similar views when editing a report page. <ul style="list-style-type: none"> • To select an existing View Category, click ... • To use a new category, enter the name of a new view category.

5. Click Next.

This displays the Style and Options page.

6. Select or enter the following parameters on this page:

Parameter	View styles	Description
Style	All	Select the style of the view, which defines how NetVoyant displays report data in the view. For more information, see “ NetVoyant View Styles ” on page 109.
Axis settings	Graphs	Configure how NetVoyant labels and scales the axes on a graph-style view. For more information, see “ Editing Axis Titles and Ranges on a Graph View ” on page 111.
Thresholds	Selected views only	Edit the thresholds on some views, which configures the values for which NetVoyant displays status colors. For more information, see “ Editing the Thresholds for a View ” on page 112.
Drill-down	Selected views only	Specify an existing report page to use as a drill-down page. Each report page has a pg setting in its URL that indicates its page number or ID. For example pg=7001 or pg=classmap. Use the value for that key as the drill-down value as the Target Page.
Footer	Selected views only	Use this field to add a footer, which can provide extra information about the view. For more information, see “ Adding Other Elements to Customize Views ” on page 120.

7. Click Next.

The Custom View Wizard displays the Select Metrics page.

8. Select the dataset that contains the type of collected data you want to display in the view.

Datasets are configured by a NetVoyant Administrator. NetVoyant includes a number of pre-configured, default datasets. Administrators can create and change dataset configurations. For more information about adding datasets for reporting purposes, see your NetVoyant Administrator.

9. Click Next.

This displays the Data Expressions and Settings page.

10. You can enter or edit the following parameters:

Parameter	View types	Description
Expressions	All	Select the expressions for which you want the view to display data. When no expressions are displayed or the expression you need is not listed, click Add to add an expression. For more information about adding expressions, see “Editing Data Expressions for a View” on page 113 .
Distribution Ranges	Distribution	Add, edit, or remove the ranges used for a distribution table or graph. These distribution ranges determine how the data is grouped in the view.
Scorecard Target	Scorecards	Edit the target used for a Scorecard view to determine what values are considered acceptable for the data.
Where	Top - N tables and charts Protocol Pie/ Table	Use this field to limit the items shown in the view by a defined set of criteria. This must follow the syntax of an SQL query clause. For assistance with this advanced reporting feature, contact CA Technical Support.
Group By	Top - N tables and charts Protocol Pie/ Table	When you use aggregations for the expressions in the view, use this field to group items in a report by a specified property or field name. This can be a NetVoyant property or field name preceded by a \$ sign. For example, \$ProtocolName can be used to group protocol data that have the same name into the same section in a Protocol pie chart.
Order By	Top-N tables and charts	Select the expression used to sort data in a Top-N table view to determine what data the view emphasizes.
Limit (top-n)	Top-N tables and charts	Enter the number of poll instances you want NetVoyant to display in the Top-N table.

Parameter	View types	Description
Show Projection	Group Summary	<p>Select whether to add a projection line to a Group Summary view.</p> <p>Projection lines indicate the direction that your data is taking over a period of time and can help you predict performance based on the trending of available data.</p> <p>NetVoyant calculates the projection line from baseline values in your data.</p>
Show Baseline and Projection	Trend charts	<p>Select whether to show a projection line (weekly or longer data) or baselines (for hourly and daily data) on a Trend view. When you display them, the display depends on the period selected for the report page.</p> <p>Hourly baselines display normal ranges of values during a selected period and can help you identify abnormal values ignoring differences based on time of day.</p> <p>Projection lines indicate the direction your data is taking over a period of time and can help predict performance based on the trending of available data.</p> <p>NetVoyant calculates the projection line from baseline values in your data.</p>

11. Click Next.

This displays the Review Summary and Save page.

12. Review the settings for the new view.

If the settings are not correct, click Back to return to a Custom View Wizard page and make changes. Then return to the Review Summary and Save page to review the changes.

13. Click Save.

This creates the custom view as you defined it and adds it to the list of custom views.

14. Close the Custom View Wizard, or use it to create another custom view:

- To create another custom view, click Create Another View.
- To close the Custom View Wizard, click Close.

Cloning Settings of an Existing Custom View

To create multiple views using the same settings, you can clone the settings of an existing custom view to create additional views. This is a convenient way to create different versions of a view using the same dataset and similar expressions.

Follow these steps:

1. While you are in the Custom View Wizard, save the view.
2. Before you close the Custom View Wizard, click a number at the top to select the page on which you want to make changes for the second view.
3. Make all desired edits for the new view.
4. Click the 1 at the top of the Custom View Wizard to select the Name and Type page.

5. Edit the View Name of the view to a new name to differentiate it from the cloned view.
6. Click the 5 at the top of the Custom View Wizard to select the Review Summary and Save page.
7. Click Save.

This creates another custom view and adds it to the list of custom views.

8. *(Optional)* Repeat steps 2 through 7 to create additional views.
9. Click Close to close the Custom View Wizard.

WORKING WITH VIEW TYPES AND STYLES

When you create custom views in NetVoyant, you must specify the type and style for the view. This determines the data displayed in the view and the way it is presented.

Note: In an unregistered NetVoyant system, only Administrator or Designer user account types can create custom views. When your NetVoyant system is registered with NetQoS Performance Center as a data source, only user accounts with an Administrator or Power User privilege can create custom views.

NetVoyant View Types

Each view has a view type that determines what type of data it can include and how you can display the data. Some of these view type are limited by period or group selection.

You can display and create views with the following view types:

- Management - Scorecard
- Management - Distributions
- Management - Group Distributions
- Management - Group Comparisons
- Management - Group Summary
- Management - Sub Group Summary
- Operations - Protocol Pie/Table
- Capacity Planning - Top Projections
- Capacity Planning - Top Closest to Threshold
- Capacity Planning - Top Changes
- Service Level Reporting - Top Deviation from Normal
- Service Level Reporting - Top Threshold Violations
- Operations - Top-N
- Management - Top-N Details
- Detail View - Trend
- Detail View - Calendar

Management - Scorecard

This view type displays an overview scorecard for a selected period of time using the average values for an expression across multiple groups or subgroups. You can select a goal range for the values to determine how NetVoyant displays the values in the scorecard.

It provide a management overview of the service level being provided by the device groupings within a selected reporting group in terms of a specified parameter. This helps viewers of a report to immediately see where there are problems and how pervasive the problems are.

For more information, see “Scorecards Report” on page 34.

Group ▲	Target	Jan 25	Feb 1	Feb 8	Feb 15	Feb 22	Mar 1	Mar 8	Average
- Devices	>= 98.00	✓ 99.974	✓ 98.292	! 96.984	✓ 99.318	✓ 99.262	✓ 98.503	! 95.602	! 97.826
Firewalls	>= 98.00	--	--	--	--	--	--	--	--
Hubs	>= 98.00	--	--	--	--	--	--	--	--
Network Termination	>= 98.00	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000
New Group2	>= 98.00	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000
Other	>= 98.00	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000
Printers	>= 98.00	✓ 100.000	✓ 99.958	✓ 99.963	✓ 99.966	✓ 100.000	✓ 99.971	✓ 99.973	✓ 99.979
Probes	>= 98.00	✓ 99.728	! 82.123	! 65.585	✓ 99.029	! 96.665	! 90.295	! 58.254	! 80.221
Routers	>= 98.00	✓ 100.000	✓ 100.000	✓ 99.960	! 97.944	✓ 100.000	✓ 99.983	✓ 100.000	✓ 99.736
Servers	>= 98.00	✓ 100.000	✓ 100.000	✓ 99.985	✓ 100.000	✓ 98.634	✓ 98.452	✓ 99.992	✓ 99.604

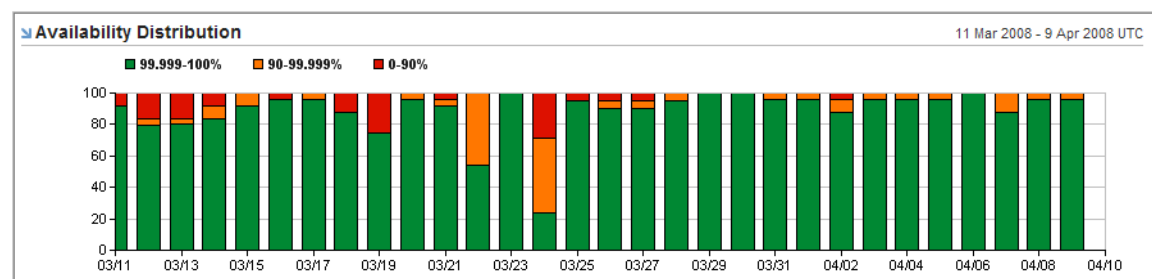
1 2

Max Per Page: 10

Management - Distributions

This view type displays aggregate values for an expression broken down according to distribution ranges, which lets you compare performance against predefined service levels. You can add, edit, or remove the ranges used for a distribution table or graph.

It provide a high-level overview of the service level being provided by the devices within a selected reporting group in terms of a specified parameter. This helps viewers of a report to immediately see where there may are problems and how pervasive the problems are.

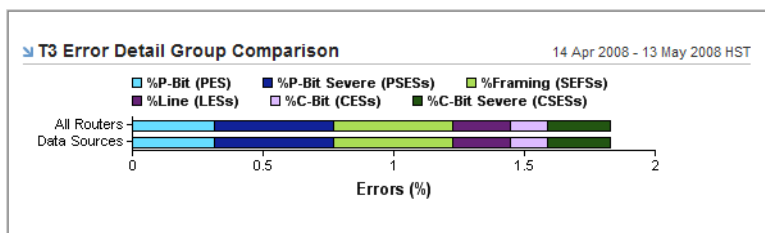


Management - Group Distributions

This view type compares aggregate values for an expression broken down according to distribution ranges across multiple groups or subgroups.

It provide a high-level overview of the service level being provided by the device groupings within a selected reporting group in terms of a specified parameter. This helps viewers of a report to immediately see where there are problems and how pervasive the problems are.

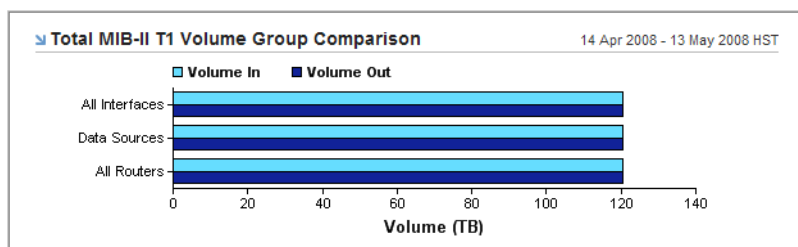
Note: You can add, edit, or remove the ranges used for a distribution table or graph.



Management - Group Comparisons

This view type compares aggregated values for an expression across multiple groups or subgroups.

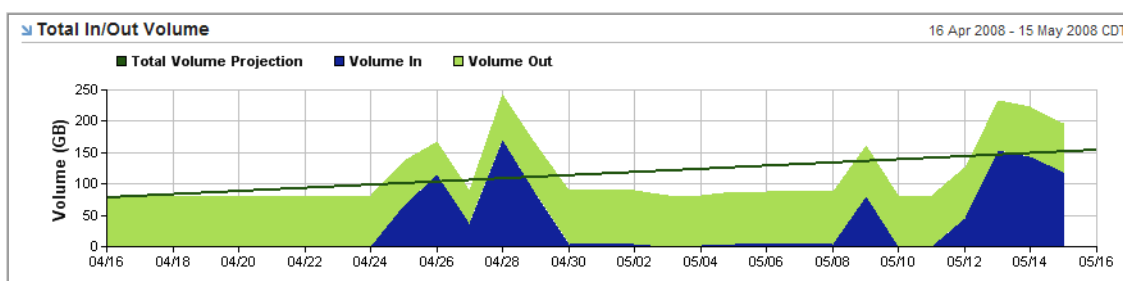
It provide a high-level comparison of the service level being provided by the device groupings within a selected reporting group in terms of a specified parameter that is monitored by NetVoyant.



Management - Group Summary

This view type displays aggregate values for an expression for a selected group on an hourly, weekly, monthly, or quarterly basis. Group Summary views can display a projection line.

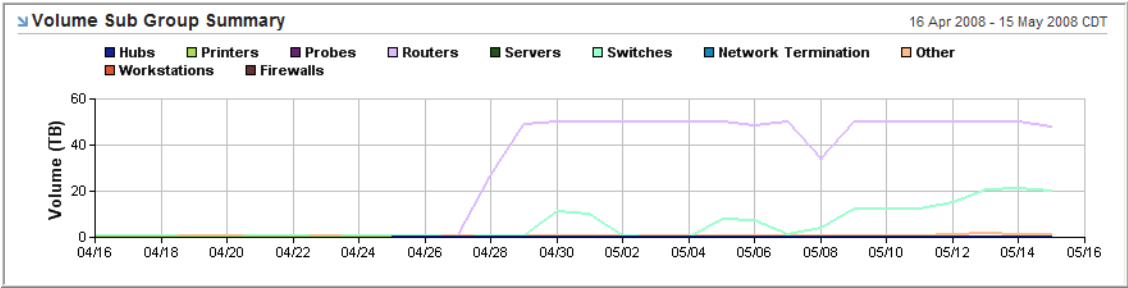
It provide a high-level overview of the service level being provided by the devices within a selected reporting group in terms of a specified parameter that is monitored by NetVoyant.



Management - Sub Group Summary

This view type compares aggregate values for an expression on an hourly, weekly, monthly, or quarterly basis across all subgroups of a selected reporting group.

It provide a high-level comparison of the service level being provided by the device groupings within a selected reporting group in terms of a specified parameter that is monitored by NetVoyant.

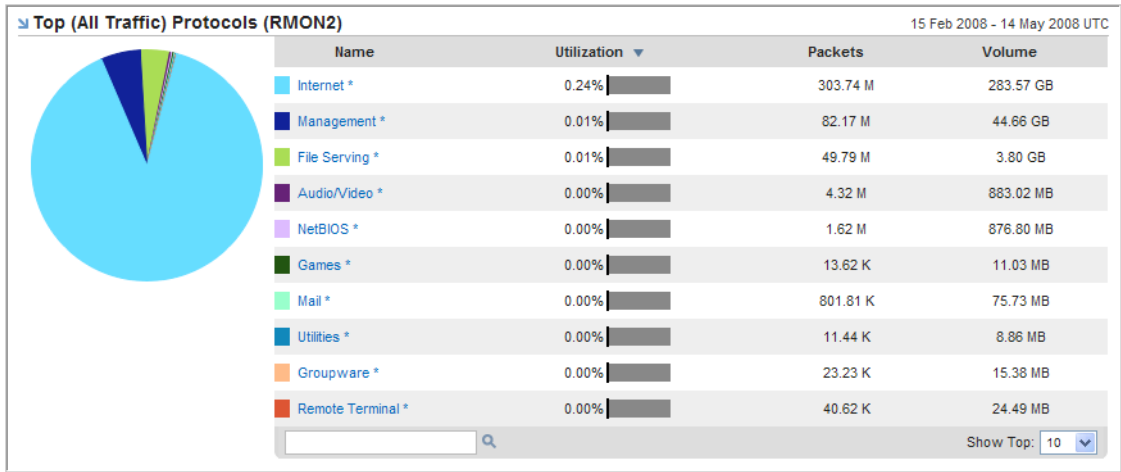


Operations - Protocol Pie/Table

This view type displays a pie graph and table describing the protocols observed in your network traffic by an RMON2 probe or data collected using Cisco’s Network Based Application Recognition (NBAR).

It provide a high-level comparison of the traffic levels on the devices within a selected reporting group.

For more information, see “Protocol Distribution Report” on page 51.



Capacity Planning - Top Projections

This view type displays average values for an expression for the past 30 days and projected values for 30, 60, and 90 days. These views display poll instances sorted from highest to lowest according to their average expression values for the past 30 days.

It provide focus to those devices experiencing the highest levels in terms of a specified parameter that is monitored by NetVoyant. The projected values provide growth rate information to assist in making proactive network management decisions.

For more information, see “Top Projections Report” on page 41.

Top Projections - Device CPU Utilization					15 Feb 2008 - 14 May 2008 UTC
Name	Metric	Last 90 Days ▼	30 Days	60 Days	90 Days
ALTISYS - Intel	Processor Load	71.99%	74.95%	76.56%	78.18%
ALTISYS - Intel	Processor Load	69.58%	85.57%	93.38%	101.19%
QA1-11 - Intel	Processor Load	46.73%	45.54%	44.96%	44.38%
QA1-11 - Intel	Processor Load	42.63%	37.62%	35.16%	32.69%
QA1-13 - Intel	Processor Load	27.95%	99.91%	135.29%	170.67%
QA5-224 - Intel	Processor Load	27.27%	58.42%	73.74%	89.05%
QA1-13 - Intel	Processor Load	26.82%	99.65%	135.47%	171.28%
QA5-224 - Intel	Processor Load	26.80%	63.65%	81.77%	99.89%
QA1-16 - Intel	Processor Load	15.36%	35.92%	46.04%	56.15%
QA1-16 - Intel	Processor Load	13.79%	32.90%	42.30%	51.70%

Search: Show Top: 10 ▼

Capacity Planning - Top Closest to Threshold

This view type displays those poll instances with values for a selected expression that are closest to the threshold for that expression. These views sort poll instances from shortest to longest based on the projection for the value surpassing the threshold.

It provides focus to those devices experiencing levels at or near threshold values of a specified parameter that is monitored by NetVoyant. This information can be used to make proactive network management decisions.

For more information, see “Top Closest to Threshold Report” on page 41.

Closest to Threshold - Latency					15 Feb 2008 - 14 May 2008 UTC
Name	Metric	Average	Threshold	Days to Threshold ▲	
ALTISYS	Average Latency (ICMP)	0.4 ms	0.7 ms	2	
QARouter-2620-4.QA.local	Average Latency (ICMP)	1.5 ms	2.9 ms	6	
QARouter-2821.QA.local	Average Latency (ICMP)	1.1 ms	2.2 ms	10	
QARouter-6509-8	Average Latency (ICMP)	0.4 ms	0.8 ms	16	
QASwitch-3750	Average Latency (ICMP)	0.7 ms	1.4 ms	123	
nclab_rtr_01.netqos.local	Average Latency (ICMP)	40.4 ms	80.8 ms	142	
QARouter-2620-5.QA.local	Average Latency (ICMP)	1.8 ms	3.6 ms	147	
NP127E04B	Average Latency (ICMP)	2.4 ms	4.8 ms	181	

Search: Show Top: 10 ▼

Capacity Planning - Top Changes

This view type displays the average values for an expression for the past 30 days and the 95th percentile of values for the current month and the previous month. These views display poll instances sorted from highest to lowest according to the percent change in the 95th percentile of values for the current month.

It provide focus to those devices experiencing the highest levels of change over time for a specified parameter that is monitored by NetVoyant. This information can be used to make proactive network management decisions.

For more information, see [“Top Monthly Changes Report”](#) on page 42.

Name	Metric	Current Month Average	Current Month 95th %	Previous Month 95th %	% Change of 95th % ▼
QA5-223 - Intel	Processor Load	0.19%	17.12%	46.32%	-170.6
QA5-223 - Intel	Processor Load	0.19%	18.12%	38.42%	-112.0
QA5-224 - Intel	Processor Load	0.43%	60.40%	12.76%	78.9
QA5-224 - Intel	Processor Load	0.63%	57.78%	13.07%	77.4
QA1-16 - Intel	Processor Load	2.61%	61.53%	16.94%	72.5
QA1-14 - Intel	Processor Load	0.36%	18.39%	5.11%	72.2
ALTISYS - Intel	Processor Load	4.73%	83.15%	30.83%	62.9
ALTISYS - Intel	Processor Load	4.73%	83.10%	30.83%	62.9
QA1-14 - Intel	Processor Load	0.43%	26.78%	14.51%	45.8
QA1-16 - Intel	Processor Load	1.61%	42.26%	25.00%	40.8

Show Top: 10 ▼

Service Level Reporting - Top Deviation from Normal

This view type displays the poll instances with values for an expression that most deviate from the baseline for that expression. These views display poll instances sorted from highest to lowest according to the percentage of deviation from the baseline.

It provide focus to those devices experiencing the greatest levels of change for a specified parameter using a rolling 30-day baseline. This information can be used to make proactive network management decisions.

When you select a different period for a report, the “normal” is calculated differently. However, all “normals” are averages based on the hourly rollup values.

For more information, see “Top Deviation from Normal Report” on page 43.

Top Deviation From Norm - Device Memory Util 16 May 2008 08:21 - 09:21 CDT

Name	Metric	Normal	Actual	Deviation (%)
QA1-11 - D:\LabelNew Volume Serial Number acd1d1a0	Percent Used	0.63%	0.11%	-82.8
QA1-16 - D:\LabelNew Volume Serial Number acd1d1a0	Percent Used	1.60%	2.04%	27.3
QA1-11 - Physical Memory	Percent Used	35.24%	27.51%	-21.9
QA5-224 - D:\Label: Serial Number e82bc899	Percent Used	6.40%	7.69%	20.2
QA1-16 - Virtual Memory	Percent Used	22.59%	19.18%	-15.1
QA1-11 - C:\Label: Serial Number 8c1510b6	Percent Used	20.77%	23.28%	12.1
QA1-16 - Physical Memory	Percent Used	35.00%	31.31%	-10.5
QA1-13 - D:\LabelNew Volume Serial Number acd1d1a0	Percent Used	1.39%	1.53%	9.6
QA5-224 - Physical Memory	Percent Used	53.01%	57.92%	9.3
QA5-224 - C:\Label: Serial Number 88c40e0e	Percent Used	51.68%	47.40%	-8.3

Show Top: 10

Service Level Reporting - Top Threshold Violations

This view type displays poll instances with the most threshold violations for a selected expression and how many times and how long the expression was over threshold. These views also display other relevant data for each poll instance to help you identify trouble areas.

It provide focus to those devices experiencing the greatest levels of threshold violations for a specified parameter. This information can be used to identify trouble spots on your network and make proactive network changes.

Viewers can hover the pointer over the metric value to display the threshold information for the metric.

For more information, see “Top Threshold Violations Report” on page 45.

Top Threshold Violations - Interfaces 16 Feb 2008 - 15 May 2008 CDT

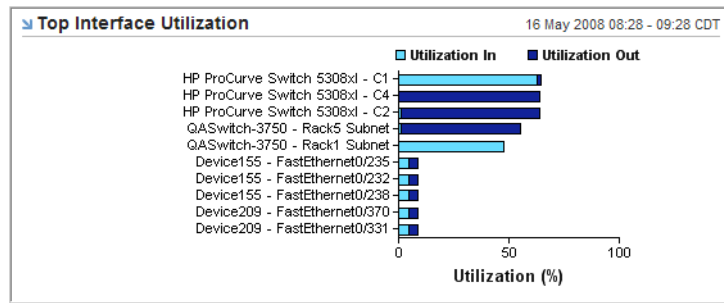
Name	Util In (%)	Util Out (%)	Errors In	Errors Out	Discards In	Discards Out	Violation Duration (%)	Number of Unique Violations
Device1 - backup internet link to BRBBD001 ATM4/0 -old(3816)	0.00%	0.00%	0.16%	13.30%	8.41%	33.28%	0.02%	1
Device155 - edge network	0.00%	0.00%	0.34%	100.00%	1.43%	0.00%	0.02%	1
Device209 - edge network	0.00%	0.00%	0.41%	100.00%	1.62%	0.00%	0.01%	3
Device11 - edge network	0.00%	0.00%	0.40%	100.00%	1.59%	0.00%	0.01%	3

Show Top: 10

Operations - Top-N

This view type displays a graph or table of the poll instances with the highest values for a selected expression.

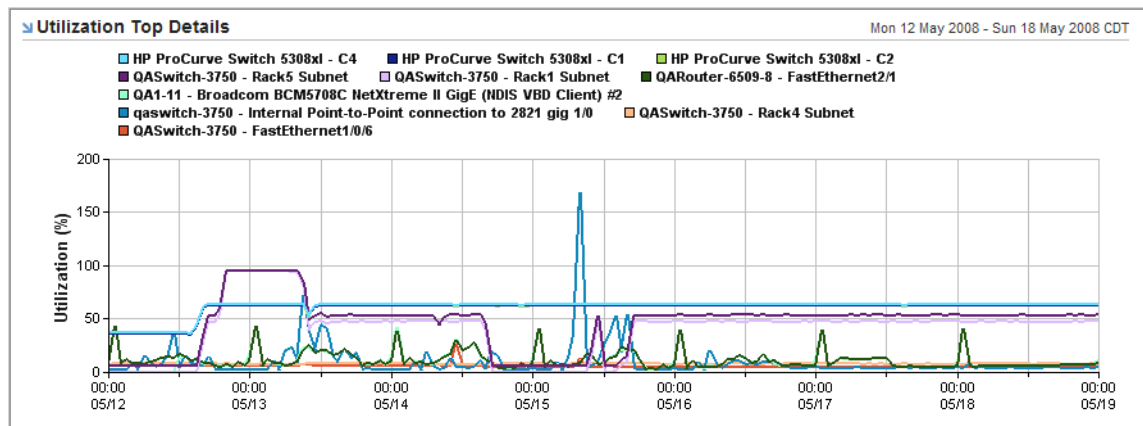
It provide focus to those devices experiencing the highest levels for a specified parameter. This information can be used to identify areas of concern on your network and make proactive network changes.



Management - Top-N Details

This view type displays an overview graph of the poll instances with the highest values for a selected expression.

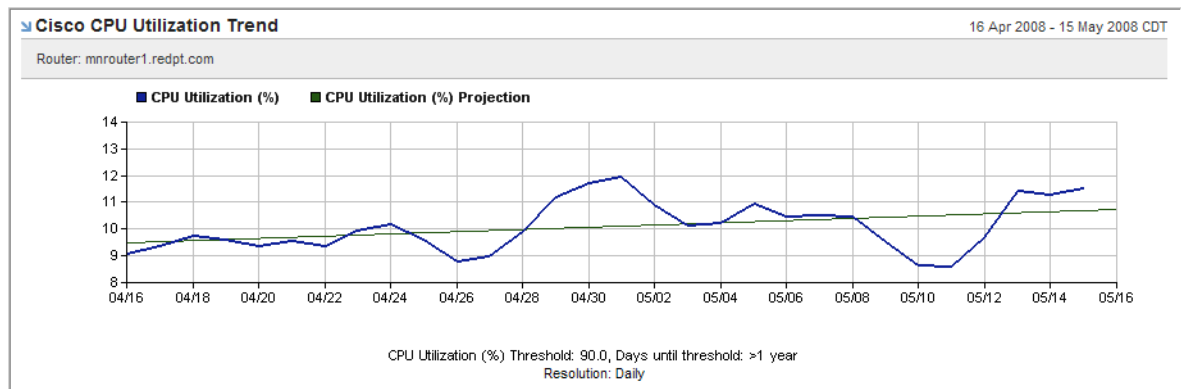
It provide focus to instance-specific trend lines for those managed objects that are most likely to exhibit problems or failures. This information can be used to identify areas of concern on your network and help you make proactive network changes.



Detail View - Trend

This view type displays a trend graph for a selected expression on a selected interface or device. Trend graphs can display hourly baselines (for hourly and daily data) or a projection line (weekly or longer data). For more information, see [“Displaying a Projection Line or Hourly Baselines on a Trend View”](#) on page 119.

The view displays the number of days until the value is expected to cross the threshold in its footer. When the value is not expected to cross the threshold, the view displays (flat slope) instead. When an expression approaches its threshold, the view also displays a line indicating the threshold for the value.

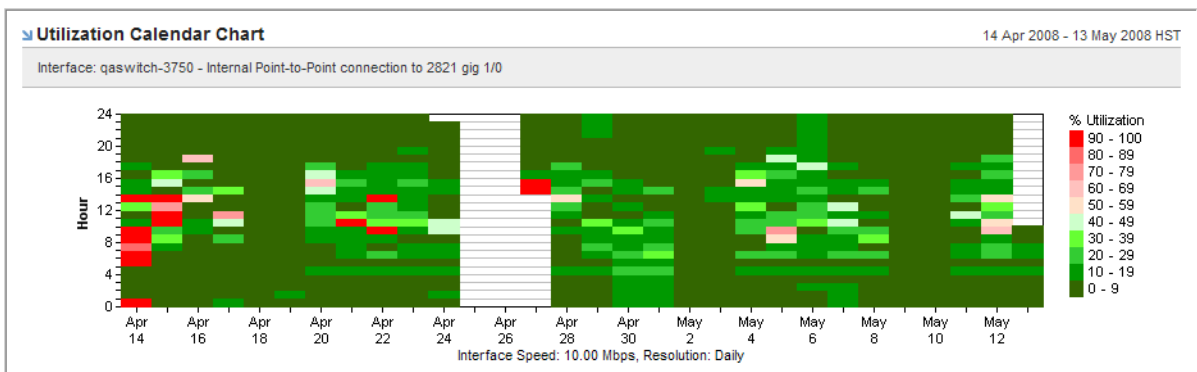


Note: The effects of a threshold change in an alarm profile assigned to the context object are not seen until NetVoyant recalculates the rolling baselines during periodic rediscovery (midnight, by default).

Detail View - Calendar

This view type displays the range of values for a selected expression on a selected interface or device for each day and hour over a thirty day period. The highest values are displayed in the deepest shade of red, and the lowest values are displayed in the deepest shade of green.

It provides a visual comparison of desirable and undesirable performance levels over a one-month period. This information can be used to identify areas of concern on your network and help you make proactive network changes.



NetVoyant View Styles

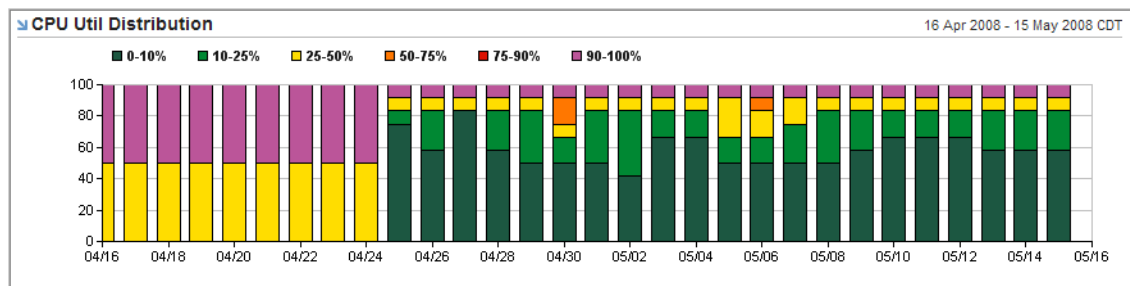
Each view has a view style that determines how NetVoyant displays report data. The view styles that are available for a view are dependent on the view type. For more information about view types, see “NetVoyant View Types” on page 100.

You can display and edit views with the following view styles:

- Stacked Bar Chart
- Bar Chart
- Line Chart
- Stacked Area Chart
- Table
- Gauges
- Calendar

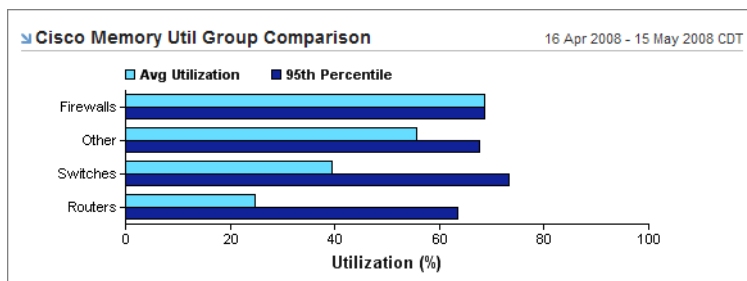
Stacked Bar Chart

This view display style stacks one or multiple expressions as colored bars in a chart.



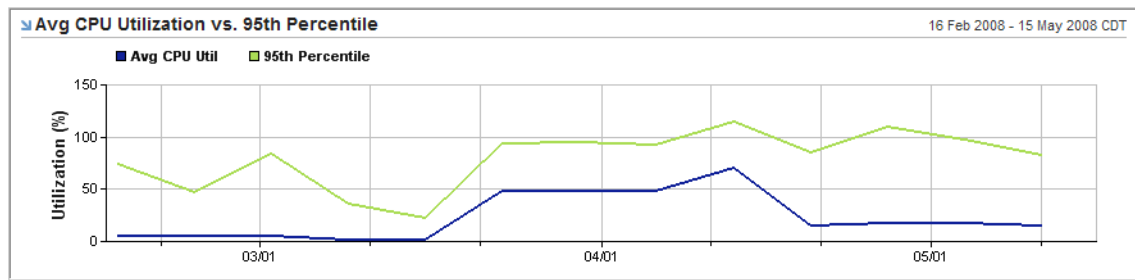
Bar Chart

This view display style plots one or multiple expressions as colored bars on the same axis.



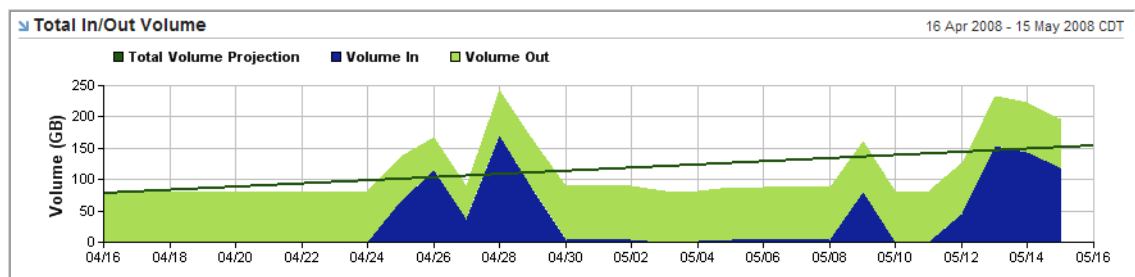
Line Chart

This view display style graphs an expression or multiple expressions as lines.



Stacked Area Chart

This view display style graphs one or multiple expressions as colored areas stacked on top of one another.



Table

This view display style provides a list of one type of data in a sortable table. Each line represents data from one poll instance, interface, device, or group.

Note: When adding a table style view to a report page, it is best to place it in a full-width (header or footer) area; otherwise, the report page reduces the table view's width to half size, which can result in poor display.

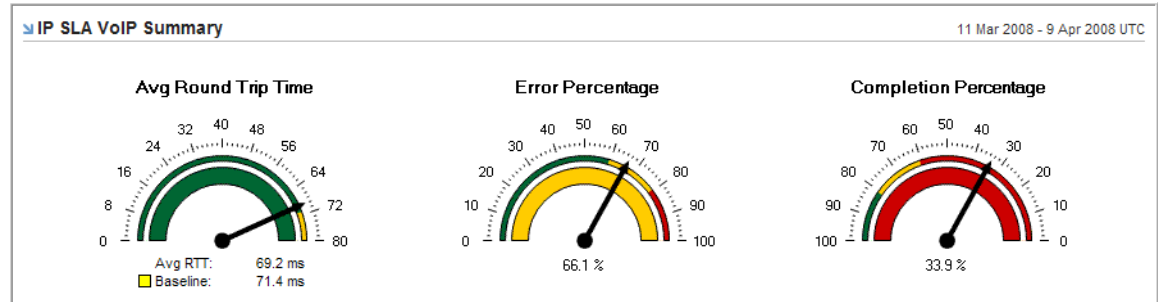
Top Projections - Cisco Memory Utilization						16 Feb 2008 - 15 May 2008 CDT
Name	Metric	Last 90 Days	30 Days	60 Days	90 Days	
Mimic2Dev155 - PIX system memory Memory	Memory Pool Utilization	68.73% <div><div></div></div>	68.73%	68.73%	68.73%	
QARouter-2620-5.QA.local - Processor Memory	Memory Pool Utilization	55.35% <div><div></div></div>	75.02%	85.20%	95.38%	
mnrouter1.redpt.com - Processor Memory	Memory Pool Utilization	41.25% <div><div></div></div>	37.44%	35.91%	34.39%	
QARouter-2620-4.QA.local - I/O Memory	Memory Pool Utilization	40.11% <div><div></div></div>	37.31%	36.17%	35.02%	
QARouter-2621-6.QA.local - I/O Memory	Memory Pool Utilization	38.54% <div><div></div></div>	38.51%	38.50%	38.49%	
QARouter-2620-5.QA.local - I/O Memory	Memory Pool Utilization	38.53% <div><div></div></div>	38.65%	38.71%	38.78%	
QARouter-2821.QA.local - I/O Memory	Memory Pool Utilization	33.40% <div><div></div></div>	32.00%	31.44%	30.88%	
nclab_rtr_01.netqos.local - I/O Memory	Memory Pool Utilization	31.94% <div><div></div></div>	32.07%	32.12%	32.18%	
Device209 - I/O Memory	Memory Pool Utilization	25.21% <div><div></div></div>	25.21%	25.21%	25.21%	
Device11 - I/O Memory	Memory Pool Utilization	25.21% <div><div></div></div>	25.21%	25.21%	25.21%	

Search:

Show Top:

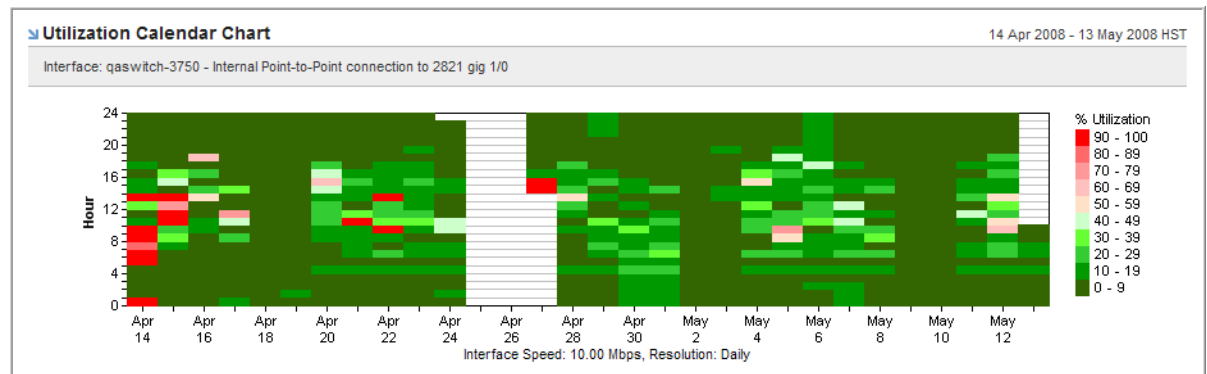
Gauges

This view display style graphs data as gauges indicating desirable and undesirable numbers according to baselines and thresholds. You cannot create new custom gauge-style views or edit existing gauge-style views; however, you can add existing gauge-style views to your report pages.



Calendar

This view style displays the range of values of a selected expression for a selected interface or device for each day and hour over a thirty-day period. This style is available only for [Detail View - Calendar](#) view types, and is the only valid style for that type.



Editing Axis Titles and Ranges on a Graph View

You can edit the axis titles and ranges for custom views to further customize the presentation of the data. The axes available depend on the view type and style. Some views have only an X- axis or a Y- axis, and others have both. Some view types use a second Y-axis when more than one expression is specified.

Follow these steps:

1. Open the view for editing.
For more information, see [“Editing a View”](#) on page 25.
2. Click Next to display the Style and Options page.

3. You can edit all or some of the following parameters for an axis:

Parameter	Description
Title	Specify the title for the graph axis. For example, % Utilization.
Auto-Scale	Select one of the units to specify how NetVoyant scales the data on the selected axis.
From	Enter a starting integer for a custom range for the axis. When you do not specify a value, NetVoyant automatically selects an appropriate range starting value for the data in the view.
To	Enter an ending integer for the range for the axis. When you do not specify a value, NetVoyant automatically selects an appropriate range ending value for the data in the view.

4. Click the 5 at the top of the Custom View Wizard to select the Review Summary and Save page.
5. Click Save.
This saves your changes.
6. Click Close.

Editing the Thresholds for a View

You can edit the thresholds for some views. These thresholds are used to configure the values for which NetVoyant displays status colors. For example, you can edit the level over which it displays values as red in a graph.

Note: Thresholds specified in the Custom View Wizard are for display purposes only. Threshold values related to NetVoyant datasets are by Administrators and are used to trigger threshold events based on alarm profiles.

You can edit thresholds on the following view types:

- [Management - Group Comparisons](#) (*views with one expression*)
- [Capacity Planning - Top Changes](#)
- [Service Level Reporting - Top Deviation from Normal](#)
- [Operations - Top-N](#) (*chart-style views with one expression*)

Follow these steps:

1. Open the view for editing.
For more information, see [“Editing a View” on page 25](#).
2. Click Next to display the Style and Options page.
3. In the Thresholds section next to each status color, enter the value over which NetVoyant displays data as that color.

You can edit one or both of the following thresholds:

Color	Description
Yellow	Indicates values that are close to threshold.
Red	Indicates values that are over threshold.

- Click the 5 at the top of the Custom View Wizard to display the Review Summary and Save page.
- Click Save.
This saves your changes.
- Click Close.

Editing Data Expressions for a View

An expression is a combination of variables, symbols, values, and identifiers that calculate a numeric result or produce some other type of value. The expression is said to evaluate to that value. As in mathematics, the expression is (or can be said to have) its evaluated value; the expression is a representation of that value.

The report data in a view comes from an expression or multiple expressions, which are built from expressions in the dataset selected for the view. You can edit the expressions on which a view reports to configure what type of data the view displays.

NetVoyant Reporting Operators

Arithmetic operators are used to perform standard mathematical operations on variables in an expression. You can use the following operators in the expressions displayed in NetVoyant report views:

Operator	Description
+	Adds two expression values.
-	Subtracts the value of the second expression from the value of the first.
*	Multiplies two expression values.
/	Divides the value of the first expression by the value of the second.
AVG()	Calculates the average value for expression data during the rollup period.
SUM()	Calculates the sum of all expression data during the rollup period.
MAX()	Calculates the maximum value for expression data during the rollup period.
MIN()	Calculates the minimum value for expression data during the rollup period.
PERCENTILE()	Calculates the Nth percentile for expression data during the rollup period, where N is a whole number less than 100 that you enter. For example, you can enter “95” for this calculation. NetVoyant then calculates the 95th percentile, for which 95% of data for the rollup period fell below this value.
COUNT()	Calculates the number of expression data points collected during the rollup period.

Editing Single Expression View Types

The following view types can display data for only one expression:

- [Management - Scorecard](#)
- [Management - Distributions](#)
- [Management - Group Distributions](#)
- [Management - Top-N Details](#)

Follow these steps:

1. Open the view for editing.

For more information, see [“Editing a View” on page 25](#).

2. Click the 4 at the top of the Custom View Wizard to select the Data Expressions and Settings page.

This page displays the expression on which the view reports.

3. Click the right arrows (>>) to display the Expression Wizard.

Note: The Expression Wizard displays the expressions defined in the dataset selected for the view. Contact your NetVoyant administrator when you need additional expressions.

4. Use the Expression Wizard to build an expression:

- Select an expression name from the first list.
- Select an operator from the second list.
- When you use an operator, select an expression name from the third list.

5. Click Build Expression.

This displays the new expression.

6. Click the 5 at the top of the Custom View Wizard to display the Review Summary and Save page.

7. Click Save.

This saves your changes.

8. Click Close.

Editing Multiple Expression View Types

Most of the NetVoyant view types can report on multiple expressions. When you edit these expressions, you also specify the order that NetVoyant uses to display them.

Note: You cannot display view thresholds for a view using more than one expression.

Follow these steps:

1. Open the view for editing.

For more information, see [“Editing a View” on page 25](#).

2. Click the 4 at the top of the Custom View Wizard to select the Data Expressions and Settings page.

This page displays the expressions on which the view reports.

- Select an expression and click Remove to remove it.
 - Select an expression and click Raise or Lower to configure in what order NetVoyant displays the expression in the view.
3. Add a new expression or change an existing expression:
 - Click Add to add a new expression.
This displays the Add Expression dialog.
 - Select an expression and click Change to edit an existing expression.
This displays the Change Expression dialog.
 4. Enter or edit the following parameters:

Parameter	Description
Name	Enter a name that describes the data that the expression represents. NetVoyant uses the name to label the data in the view. For example, you can enter Interface Utilization to describe the expression ifutil.
Expression	Use the Expression Wizard to build an expression to enter or edit an expression: <ul style="list-style-type: none"> • Select an expression name from the first list. • Select an operator from the second list. • When you use an operator, select an expression name from the third list. Click Build Expression.
Color	Select the Color to use to label data for the expression in the view.

Note: The Expression Wizard displays the expressions defined in the dataset selected for the view. Contact your NetVoyant administrator when you need additional expressions.

5. Repeat steps 3 and 4 to add or edit the rest of the expressions in the view.
6. Click the 5 at the top of the Custom View Wizard to display the Review Summary and Save page.
7. Click Save.
8. Click Close.

Editing the Distribution Ranges for a View

You can add, edit, or remove the ranges used for a distribution table or graph. These distribution ranges determine how the data is grouped in the view. You can only edit the distribution ranges on distribution-type views.

Warning: Adding a large number of distribution ranges to a view can severely limit reporting performance.

Follow these steps:

1. Open the view for editing.
For more information, see [“Editing a View” on page 25](#).
2. Click the number 4 at the top of the Custom View Wizard to display the Data Expressions and Settings page.

This page displays the expression on which the view reports and the distribution ranges for the expression values.

3. In the Distribution Ranges section, perform one of the following actions:
 - Select a distribution range and click Change to edit the distribution range.
This displays the Change Distribution Range dialog.
 - Click Add to add a new distribution range.
This displays the Add Distribution Range dialog.
4. Enter or edit the following parameters:

Parameter	Description
Name	Enter a name for the distribution range, which NetVoyant uses to label data in the range in the view.
Range	Enter the range of data into which you want to aggregate data. NetVoyant aggregates data within the distribution range formed between the number on the left to the number on the right.
Color	Select a color for the distribution range, which is used to label data in the range in the view.

5. Click OK.
6. Repeat steps 3 and 4 to add or edit other distribution ranges.
7. *(Optional)* To delete a distribution range, select the distribution range and click Remove.
8. Click the 5 at the top of the Custom View Wizard to select the Summary/Save page.
9. Click Save.
This saves your changes.
10. Click Close.

Setting the Scorecard Target for a View

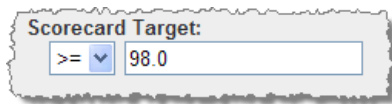
You can edit the target used for scorecard views to determine what values are seen as acceptable for the data. Those values that meet the scorecard target display a green checkmark on the scorecard. Those values that do not meet the scorecard target display a red exclamation point on the scorecard.

Values that fall short of a target display a red exclamation point

Group	Target	Oct	Nov	Dec	Average
Network Termination	>= 98.00	! 92.868	! 89.958	! 0.000	! 60.942
Other	>= 98.00	✓ 99.992	✓ 100.000	✓ 99.918	✓ 99.970
Printers	>= 98.00	✓ 99.984	✓ 99.995	✓ 99.915	✓ 99.965
Probes	>= 98.00	! 76.228	! 8.403	! 0.000	! 28.210
Routers	>= 98.00	✓ 99.901	! 97.042	! 97.358	✓ 98.100
Servers	>= 98.00	✓ 99.281	✓ 99.708	✓ 99.905	✓ 99.631

Follow these steps:

1. Open the view for editing.
For more information, see [“Editing a View” on page 25](#).
2. Click the 4 at the top of the Custom View Wizard to select the Data Expressions and Settings page.
This page displays the expression on which the view reports and the scorecard target.
3. Select one of the operators and enter a target value to define the range for the Scorecard Target.
For example, select the \geq operator and enter “95” to define a scorecard target of greater than or equal to 95.



4. Click the 5 at the top of the Custom View Wizard to select the Review Summary and Save page.
5. Click Save.
This saves your changes.
6. Click Close.

Editing the Default Sort Order for a Top-N View

You can edit how NetVoyant sorts the data in a Top-N table view to determine what data the view emphasizes. You can also sort a table view temporarily by the columns in the table.

Follow these steps:

1. Open the view for editing.
For more information, see [“Editing a View” on page 25](#).
2. Click the 4 at the top of the Custom View Wizard to display the Data Expressions and Settings page.
This page displays the expression on which the view reports and the Order By.
3. From the Order By list, select the expressions by which to sort the view.
4. Select one of the following:
 - Descending
 - Ascending

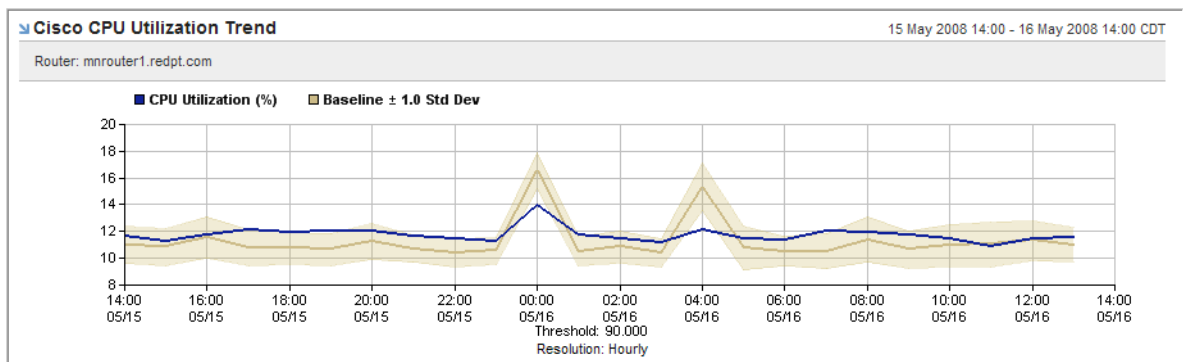
For example, while editing a Top Least Available view on the Operations Summary report, select the Availability expression and select Descending to sort the view to show the least available devices in the table first.
5. Click the 5 at the top of the Custom View Wizard to display the Review Summary and Save page.
6. Click Save.
This saves your changes.
7. Click Close.

Using Projection Lines and Hourly Baselines

You can add hourly baselines (for hourly and daily data) and a projection line (weekly or longer data) to Trend views. You can also add projection lines to Group Summary views. For more information, see “[Displaying a Projection Line or Hourly Baselines on a Trend View](#)” on page 119 and “[Displaying a Projection Line on a Group Summary View](#)” on page 119.

Hourly Baselines. Hourly baselines display normal ranges of values during a selected period and can help you identify abnormal values ignoring differences based on time of day. NetVoyant calculates the average value for each hour of the day from a 30-day rolling window of data and creates hourly baselines.

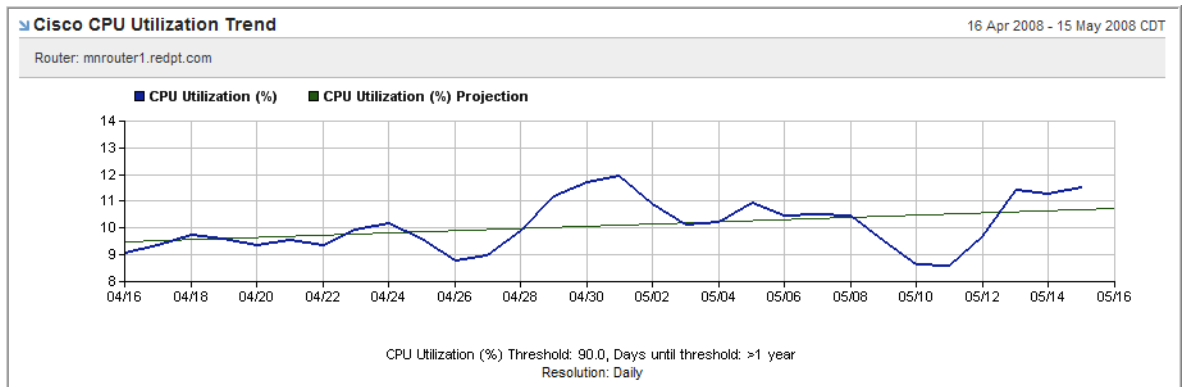
Hourly baselines for a daily period



The dark bar in the center of an hourly baseline represents the average value for that hour of the day. The light orange bar represents one standard deviation from a baseline value. When your data falls outside of an hourly baseline bar on a view, the data is varying beyond one standard deviation, which could represent unusual data for that hour.

Projection Lines. Projection lines indicate the direction that your data is taking over a period of time and can help you predict future performance based on the trending of available data. A projection line is a linear regression trend line calculated from the data in the view.

A projection line on the same view for a monthly period



Displaying a Projection Line on a Group Summary View

You can add a projection line to a Group Summary view. You can also add hourly baselines (for hourly and daily data) and a projection line (weekly or longer data) to a Trend view. For more information, see [“Displaying a Projection Line or Hourly Baselines on a Trend View”](#).

Follow these steps:

1. Open the view for editing.

For more information, see [“Editing a View” on page 25](#).

2. Click the 4 at the top of the Custom View Wizard to display the Data Expressions and Settings page.

This page displays the expression on which the view reports.

Show Projection (weekly and greater):
☒ Display Projection for last Expression

3. Place the expression for which you want to display a projection line as the last expression in the list by selecting the expression and clicking Raise or Lower.
4. Click Display Projection for last Expression.
5. Click the 5 at the top of the Custom View Wizard to display the Review Summary and Save page.
6. Click Save.

This saves your changes.

7. Click Close.

Displaying a Projection Line or Hourly Baselines on a Trend View

You can add hourly baselines (for hourly and daily data) and a projection line (weekly or longer data) to a Trend view. You can also add a projection line to a Group Summary view. For more information, see [“Displaying a Projection Line on a Group Summary View” on page 119](#).

Follow these steps:

1. Open the view for editing.

For more information, see [“Editing a View” on page 25](#).

2. Click the 4 at the top of the Custom View Wizard to display the Data Expressions and Settings page.

This page displays the expression on which the view reports.

3. Place the expression for which you want to display a projection line or hourly baselines as the last expression in the list by selecting the expression and clicking Raise or Lower.
4. Click Display Baseline/Projection for last Expression.
5. Click the 5 at the top of the Custom View Wizard to display the Review Summary and Save page.
6. Click Save.

This saves your changes.

7. Click Close.

ADDING OTHER ELEMENTS TO CUSTOMIZE VIEWS

There are some additional elements that you can include in a custom view. These elements provide additional information for interpreting the displayed data.

Adding Footers to Views

You can add a footer to many views, which can add extra information to the view. For some types of trend graphs, you can add the resolution to the view's footer, which can help you determine what type of data you are viewing in a graph. For more information, see [“Including View Resolution Information” on page 121](#).

Follow these steps:

1. Open the view for editing.
For more information, see [“Editing a View” on page 25](#).
2. To display the Style and Options page, click Next.
3. Enter the Footer text.
4. To display the Review Summary and Save page, click the 5 at the top of the Custom View Wizard.
5. (Optional) Select to save the changes to My Current Session to only apply the changes for your user account for the current session.

When you log out, NetVoyant removes the changes.

6. Click Save.

This saves your changes.

7. Click Close.

This closes the Custom View Wizard and adds the footer to the view.

Note: To remove your changes from a view's footer, revert the view to the default settings. For more information, see [“Reverting a View to the Default Settings” on page 30](#).

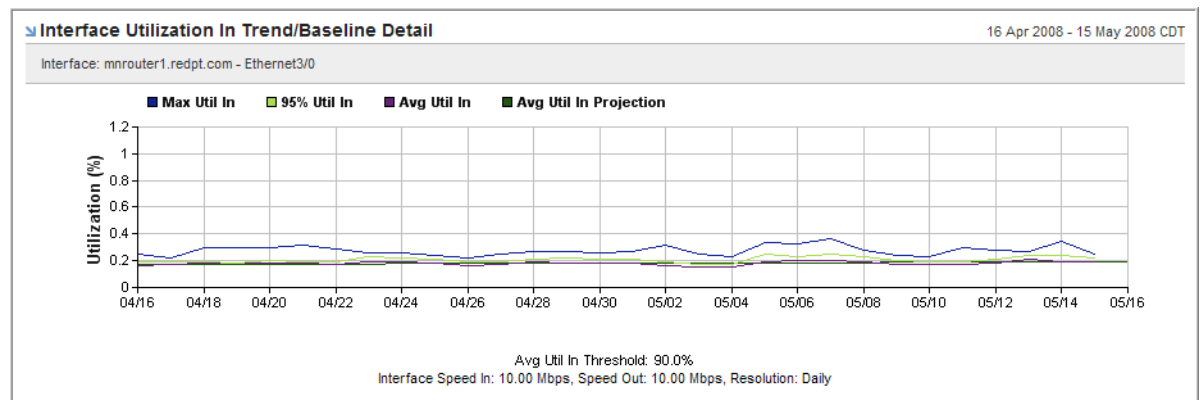
Adding NetVoyant Properties to Footers

You can enter NetVoyant properties in the footer. To enter a NetVoyant property, enter the property name surrounded by braces. It is also a good idea to include a label for the property.

To enter the interface speed and resolution for an interface view, you can enter the following:

Interface Speed In: {ifSpeed}, Speed Out: {ifSpeed}, Resolution: {Resolution}

A footer displaying interface speed properties and graph resolution

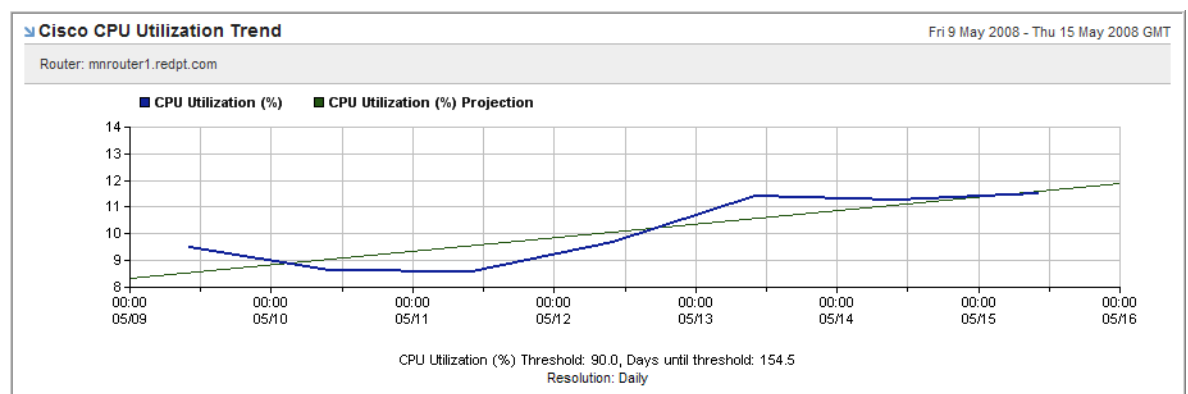


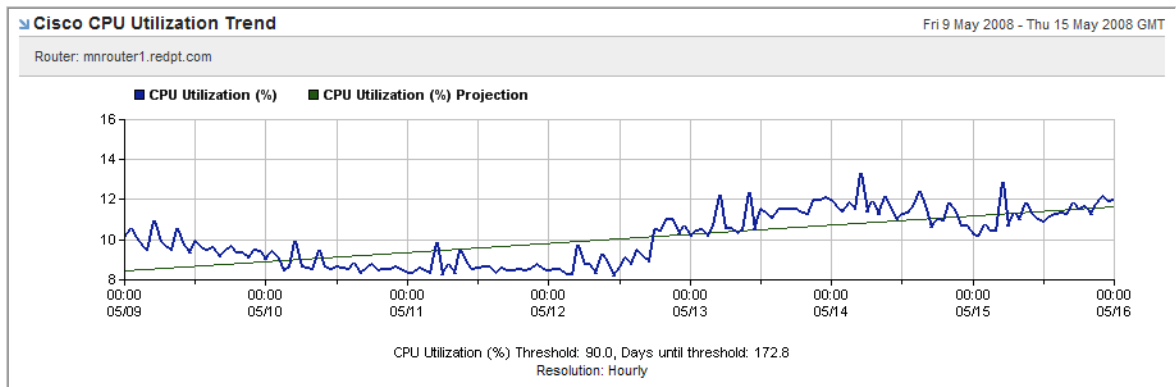
Including View Resolution Information

The resolution for a graph view indicates the time interval used to plot data points on a trend graph. NetVoyant determines the resolution for a trend graph based on the following factors:

- The **polling rate** for the dataset. The polling rate determines how often data is collected from your devices.
- The **data retention and rollup settings** for the poll group for the related dataset. Data retention and rollup settings determine how often polling data is rolled up into optimized collections of data with a lower resolution.
- The **period** displayed for the report page. To optimize reporting, NetVoyant displays data differently based on the period that you select for the report page.

Trend graph with a resolution of one day



Trend graph with a resolution of one hour**Adding the Resolution to a Trend Graph Footer**

Some trend graphs display the resolution of the graph as a footer to the graph, which can help you determine what type of data you are viewing in a graph. For some types of trend graphs, you can add the resolution to the view's footer.

Note: You can add other properties to the footer of a graph view.

Follow these steps:

1. Open the graph view for editing in the Custom View Wizard.
2. Click Next to display the Style and Options page.
3. In the Footer field, add the following text:
Resolution: {Resolution}
4. Click the 5 at the top of the Custom View Wizard to display the Review Summary and Save page.
5. Click Save.
6. Click Close.

Note: To remove your changes from a view's footer, revert the view to the default settings. For more information, see "Reverting a View to the Default Settings" on page 30.

Reporting Administration

The security features in NetVoyant are designed for compatibility with NetQoS Performance Center. Permissions to access report pages and perform certain tasks are tied to the roles associated with user accounts. An administrator creates a user account for each NetVoyant operator and determines his or her level of product permission, or access. This design provides a flexible and secure way to determine the product features and reports that each different type of user can use or view.

The product permissions and roles associated with each user account can be shared among CA data source products. After you register NetVoyant with NetQoS Performance Center, you must manage users, roles, and permissions across all CA data source products from NetQoS Performance Center. You must have Administrator product permissions to add, edit, or delete a user.

The current versions of NetVoyant and NetQoS Performance Center support the CA Single Sign-On product, which coordinates user accounts, permissions, and secure access among CA data source products. An instance of the Single Sign-On software is automatically installed on each computer where a CA data source product is installed. Single Sign-On settings, such as whether anonymous users are able to log in, control access to those products. More information about this software is provided in the *Single Sign-On Guide*, which is available on the CA website.

- [“Changing Your User Account Password” on page 124](#)
- [“Configuring Email Servers and Schedules” on page 124](#)
- [“Editing the Report Menus” on page 126](#)
- [“Configuring Global Settings” on page 127](#)
- [“Working with Roles and User Accounts” on page 128](#)

CHANGING YOUR USER ACCOUNT PASSWORD

When a NetVoyant administrator creates a user account, the account includes a password that enables the user to log into NetVoyant. As a user, you can change the password for your account at any time.

Follow these steps:

1. Click Report Pages, Administration.

The Administration page opens.

2. Under NetVoyant, click Users.

This lists your user account on the View User Accounts page.

Note: When NetVoyant is registered as a data source in NetQoS Performance Center, NetQoS Performance Center opens, where you complete the task. For more information, see the *CA NetQoS Performance Center Administrator and User Guide*.

3. Select your user account and click Edit.

The Edit User Account page opens.

4. Enter or edit the following parameters:

Parameter	Description
Password	Enter the new password for the user account. Passwords are limited to 20 characters.
Confirm Password	Enter the password to confirm.

5. Click Save.

CONFIGURING EMAIL SERVERS AND SCHEDULES

NetVoyant administrators can configure a Simple Mail Transfer Protocol (SMTP) server that lets users send or schedule emails from the NetVoyant user interface. Users can set up and edit their own email schedules after a NetVoyant administrator configures the SMTP server. NetVoyant administrators can view, edit, or delete existing email schedules.

Adding an SMTP Server

A NetVoyant administrator must configure a Simple Mail Transfer Protocol (SMTP) server to enable users to send or schedule emails in NetVoyant. When a user attempts to email a report page and an SMTP server has not been configured for NetVoyant, it alerts the user to contact an administrator.

Follow these steps:

1. Click Report Pages, Administration.

The Administration page opens.

2. In the NetVoyant section, click Email Server.

The Email Server Settings page opens.

3. Enter or edit the following settings:

Parameter	Description
Enable Email	Select to enable users to send and schedule emails.
SMTP Server Address	Enter the IP address or name of the SMTP server.
Email Reply Address	Edit the email reply address. This address is used as the from address for sent emails.
Email Format	Select the format in which you want to send emails. <ul style="list-style-type: none"> • HTML • Text

4. Click Save.

This adds the designated SMTP server and enables users to send report pages in emails.

Viewing, Editing, or Deleting an Email Schedule

NetVoyant users can create, edit or delete email schedules. Setting up an email schedule can automatically provide data for daily, weekly or monthly reports. Viewer and Designer user accounts can create a schedule when they email report pages and can only view or modify schedules they have created. NetVoyant administrators can view, edit, or delete all existing email schedules.

Follow these steps:

1. Click Report Pages, Administration.

The Administration page opens.

2. Under User Settings, click Email Schedules.

The Email Schedules page lists the configured email schedules.

Note: When there are no scheduled emails, the page provides an alert for this condition.

3. To delete an email schedule, select the schedule and click Delete.
4. To view or edit an email schedule, select the schedule and click Edit.

The Edit Email Schedule dialog opens.

5. You can view or edit the following settings:

Parameter	Description
Owner	<i>(Read-only)</i> The user account that created the email schedule.
Sent To	The email addresses to which the report page is sent.
Subject	The subject line for the email.
Message	The message sent in the body of the email.
Time Zone	The time zone used for generating the report data.
Archive Email	Select this check box to save a copy of the generated report PDF to a database. This does not archive the email message or recipient information.

Parameter	Description
Scheduling Options	Select one of the following: <ul style="list-style-type: none">• Send Daily - Select which days of the week to send the email.• Send Weekly - Select which day of the week to send the email.• Send Monthly - Select to send the email on the last day of each month.• Send Quarterly - Select the last month of the first quarter (sends the email on the last day of each quarter).• Send Yearly - Select the last month of the year (sends the email on the last day of the year).
Send email at	Use this setting to specify a time of day to send the email. Scheduled reports are generated just after midnight (typically around 1:00 AM, when nightly rollups are completed) in the selected time zone on the day or days selected in the scheduling options. This option specifies a time of day to send the email

6. Click Save.

EDITING THE REPORT MENUS

Administrator and Designer user accounts can edit the titles for shared menus and the report pages that appear in each shared menu. Use this feature to customize the report menus for your organization so that the most useful reports are easy to access.

Follow these steps:

1. From the Report Pages menu, select Administration.

The Administration page opens.

2. Under User Settings, click Menus.

The View Menus page opens.

3. Perform one of the following actions:

- To create a menu, click New.
- To edit a menu, select the menu and click Edit.
- To delete a menu, select the menu and click Delete.

When you add or edit a menu, the Edit Report Menu page is displayed.

4. Enter or edit the following parameters:

Parameter	Description
Name	Enter the name that you want to use as the heading for the menu.
Description	Enter a description to help you and other users identify what types of report pages are in the menu.
Selected Pages	Perform the following actions to add, reorder, or remove the report pages that are listed in the menu: <ul style="list-style-type: none"> • To move a report page to the list of Selected Pages, select an existing report page from the list of Available Pages and click the right arrow. • To rearrange the report pages in the menu, click the up and down arrows. • To remove a report page from the menu, select a report page in the list of Selected Pages and click the left arrow.

5. Perform one of the following actions:

- To save the report menu, click Save.
 - To save the menu and add an additional menu, click Save & Add Another.
- This adds the menu to the list of available menus.

6. Edit a role to provide access to the menu.

This adds the menu to the menu bar for that role. For more information, see [“Working with Roles and User Accounts” on page 128](#).

7. *(Optional)* Repeat step 6 to add the menu to other roles.

CONFIGURING GLOBAL SETTINGS

Administrators can use the global settings to configure the number of items that NetVoyant shows in all views; however, individual users can configure their own views to include a greater or lesser number of items while displaying a view on a report page. For more information, see [“Including More Data in a View” on page 10](#).

The global settings also provide configuration options for including and excluding data from NetVoyant reporting views based upon poll instance status. For large custom groups, eliminating poll instances by status can optimize performance when generating NetVoyant reports. These settings also affect NetVoyant data displayed in NetQoS Performance Center when NetVoyant is added as a data source.

Follow these steps:

1. Click Report Pages, Administration.
The Administration page opens.
2. Under NetVoyant, click Global Settings.
The Edit Global Settings page opens.

3. Edit the default maximum settings for views:

Setting	Description	Default	Maximum
Default max rows for tables	Sets the maximum number of rows to display in table views.	10	200
Default max pie chart slices	Sets the maximum number of items to display in pie chart views.	10	15
Default max rows for top-n bar/area charts	Sets the maximum number of items to display in top-n bar and area charts.	10	50

4. Use the “Poll Instance statuses to report on” check box options to include or exclude data in the views generated for a selected reporting group by poll instances status.

All status categories are selected for inclusion by default.

5. Click Save.

WORKING WITH ROLES AND USER ACCOUNTS

Roles define how users can access and interact with NetVoyant reports. An administrator creates a user account for each user who logs in to NetVoyant and assigns one or more roles for the user. Assigning a role to a user account grants that user the access rights and menu access assigned to that role. Only a NetVoyant administrator can create and edit roles.

Note: When your installation of NetVoyant is registered to NetQoS Performance Center as a data source, roles and user accounts must be managed in NetQoS Performance Center. For more information, see the *CA NetQoS Performance Center Administrator and User Guide*.

NetVoyant Default Roles

NetVoyant installs with a set of default roles that are already defined and ready to use. These are standard roles that are used in most IT organizations and define the area access allocated to each user. Roles provide a means of protecting sensitive information based on organizational function.

The following are the default roles that are pre-configured for NetVoyant installations:

Role	Description	Access rights	Default Menus
Director of IT	Plans and directs the organization's information technology and manages the IT staff.	<ul style="list-style-type: none"> • Enable Role • Drill into Views • Edit Share Views • Persist Shared View Edits 	<ul style="list-style-type: none"> • My Pages • Service Level Reporting
Network Engineer	Plans, implements, and supports network solutions and monitors network performance on a daily basis.	<ul style="list-style-type: none"> • Enable Role • Drill into Views • Edit Share Views • Persist Shared View Edits 	<ul style="list-style-type: none"> • My Pages

Role	Description	Access rights	Default Menus
Network Manager	Coordinates network solutions with engineers and operators and monitors network performance on a weekly basis.	<ul style="list-style-type: none"> • Enable Role • Drill into Views • Edit Share Views • Persist Shared View Edits 	<ul style="list-style-type: none"> • My Pages • Management • Capacity Planning • Service Level Reporting • Operations
Network Operator	Monitors network performance and troubleshoots issues on a daily basis.	<ul style="list-style-type: none"> • Enable Role • Drill into Views • Edit Share Views • Persist Shared View Edits 	<ul style="list-style-type: none"> • My Pages
NOC Manager	Manages the network operations center and its personnel.	<ul style="list-style-type: none"> • Enable Role • Drill into Views • Edit Share Views • Persist Shared View Edits 	<ul style="list-style-type: none"> • My Pages • Capacity Planning
VP of Infrastructure	Provides oversight and direction for maintaining and improving the organization's infrastructure.	<ul style="list-style-type: none"> • Enable Role • Drill into Views • Edit Share Views • Persist Shared View Edits 	<ul style="list-style-type: none"> • My Pages • Operations

Adding and Editing Roles

Roles define how users access and interact with NetVoyant views and reports. When a user account is assigned to a role, that user inherits the access rights for that role.

Note: When your installation of NetVoyant is registered to NetQoS Performance Center as a data source, roles and user accounts must be managed in NetQoS Performance Center. For more information, see the *CA NetQoS Performance Center Administrator and User Guide*.

Follow these steps:

1. Click Report Pages, Administration.
The Administration page opens.
2. Under User Settings, click Roles.
The existing roles are listed on the View User Roles page.
3. Perform one of the following actions:
 - To delete a role, select the role and click Delete. Click Delete on the confirmation page.
 - To create a role, click New.
The Add User Role page opens.
 - To edit a role, select the role and click Edit.
The Edit User Role page opens.

4. Enter or edit the following settings for creating a new role or modifying an existing role:

Parameter	Description
Name	Enter or edit a name to identify the role.
Description	<i>(Optional)</i> Enter or edit the description of the role.
Access Rights	Enable or disable the following rights (permissions): <ul style="list-style-type: none">• Enable Role - Enables you and other NetVoyant administrators to assign this role to user accounts.• Drill into Views - Enables users in this role to click views to drill into more detailed information.• Edit Shared Views - Enables users in this role to edit menus, report pages, and views that are shared with other users. All users can edit the report pages and views in the My Pages menu.• Persist Shared View Edits - When the role can edit shared views, this right enables those changes to be seen by other users and maintained by NetVoyant. When you disable this access right, changes made by a user in this role to shared menus, pages, or views are not visible to other users and are removed when the user logs out.
Menus For This Role	To configure what menus are visible to users in the role, click Edit and perform the following actions: <ul style="list-style-type: none">• To enable a menu, select the menu in the list of Available Sub Menus and click the right arrow to move it to the list of Selected Sub Menus.• To remove a menu, select the menu in the list of Selected Sub Menus and click the left arrow to move it to the list of Available Sub Menus.• To rearrange a menu, select the menu and click the up or down arrow. Click OK when you are finished.

5. Perform one of the following actions:

- To save the role, click Save.
- To save the role and add an additional role, click Save & Add Another.

This creates the role and you can now apply the role to existing or new user accounts.

Note: You can proxy a role to validate how users in that role can view and manipulate report pages in NetVoyant user interface before assigning users to the role. For more information, see [“Proxying a Role”](#) on page 134.

Adding or Editing a NetVoyant User

As a NetVoyant administrator, you can add new users and edit user accounts. You set a password that the user can change later or you can reset a password when a user has forgotten it.

Note: When your installation of NetVoyant is registered to NetQoS Performance Center as a data source, roles and user accounts must be managed in NetQoS Performance Center. For more information, see the *CA NetQoS Performance Center Administrator and User Guide*.

Follow these steps:

1. Click Report Pages, Administration.
The Administration page opens.
2. Under User Settings, click Users.
This lists the existing user accounts on the View User Accounts page.
3. Perform one of the following actions:
 - To create a new user account, click New.
The Add New User page opens.
 - To edit an existing user account, select the user account and click Edit.
The Edit User Account page opens.
 - To delete a user account or multiple user accounts, select the user account and click Delete.
4. Enter or edit the following parameters:

Parameter	Description
Name	Enter or edit the name for the user account, which is used to log in to NetVoyant.
Description	<i>(Optional)</i> Enter or edit a description of the user account.
Email Address	Enter an email address for the user.
Password	Enter or edit the password for the user account, which is used to log in to NetVoyant. The password is limited to 20 characters.
Confirm Password	Re-enter the password to confirm.
Time Zone	Select a time zone for the user. The time zone determines how reports label data with time for this user. For example, a user has a time zone of Central Standard Time (CST) instead of the default of Universal Coordinated Time (UTC). The user views a report with data for 8:00 AM to 9:00 AM, NetVoyant displays data for 8:00 AM to 9:00 AM CST.
Role	Select a role to determine user permissions and available menus for the user account. For more information, see “NetVoyant Default Roles” on page 128 and “Adding and Editing Roles” on page 129 .

Parameter	Description
Type	<p>Select one of the following user account types:</p> <ul style="list-style-type: none"> • Administrator - A NetVoyant administrator manages user accounts and roles and performs other administrative tasks. An administrator can also edit and create report pages, views, and menus. • Designer - A designer can edit and create report pages, views, and shared menus. This is equivalent to the Power User account type in NetQoS Performance Center. • Viewer - A viewer can view report pages and add report pages to their own My Pages menu. This is equivalent to the User account type in NetQoS Performance Center.
Permission Group	<p>(Optional) To indicate which devices or networks a user can view or access in NetVoyant reports, click Change Group.</p> <p>For more information, see “Changing User Permission Groups” on page 132.</p>
Allow user to export views	Select this setting to enable the user to generate URLs for views or export the SQL commands for a view.
Enabled	Select to make the user account active. When this option is not selected, the user cannot log in to NetVoyant.

5. Perform one of the following actions:

- To save the user account, click Save.
- To save the user account and create an additional user account, click Save & Add Another.

NetVoyant creates the user account.

Note: As an administrator, you can proxy a user account to validate how the user can view and manipulate report pages before making the account available to the user. For more information, see [“Proxying a User Account” on page 133](#).

Changing User Permission Groups

Permission groups determine the data that can be accessed by the user account. The groups created by a NetVoyant administrator are assigned in the User Account settings to determine what groups and managed objects can be included in reports for that user. This helps to streamline reporting for the user by filtering the data to their area of responsibility. It also provides added security within an organization by restricting users to only the data they are allowed to access.

Note: When your installation of NetVoyant is registered to NetQoS Performance Center as a data source, roles and user accounts must be managed in NetQoS Performance Center. For more information, see the *CA NetQoS Performance Center Administrator and User Guide*.

Follow these steps:

1. Click Change Group on the Edit User Account page.

The Select Group Permissions dialog displays groups, networks, and custom groups, and the number of devices (members) in each group, and a description.

2. (Optional) Enter a Group Filter and click Search to limit the groups by name.

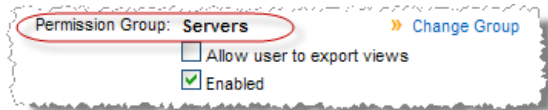
You can use * as a wildcard. For example, you can enter Aus* to display only those groups that begin with the text “Aus” in their names, such as Austin, Australia, Austria, and so on.

To display more groups, select a larger Size from the list at the lower-right corner of the group list.

3. To limit what the user can view to a group or network, click the name of group or network.

Note: When you select a parent group, all child groups (or sub-groups) are included. Organize groups so that devices and networks are members of groups according to area of responsibility and access requirements.

This closes the dialog, and the selected group appears in the Edit User Account page next to the Permission Group setting.



4. Click Save to save the changes to user account.

Proxying a User Account

Proxying a user account lets you validate significant changes or enhancements to the available report pages. Only a NetVoyant administrator can proxy a user account. As an administrator, you can also proxy a user account to create a new report page in the My Pages menu for that user. For more information, see [“Adding Pages to a User’s My Pages Menu” on page 134](#).

As a proxy, you view and manipulate pages in NetVoyant in exactly the same way as the role or user account that you assume.

Note: When your installation of NetVoyant is registered to NetQoS Performance Center as a data source, roles and user accounts must be managed in NetQoS Performance Center. For more information, see the *CA NetQoS Performance Center Administrator and User Guide*.

Follow these steps:

1. Click Report Pages, Administration.
The Administration page opens.
2. Under User Settings, click Users.
This lists the existing user accounts on the View User Accounts page.
3. Select the user account and click Proxy.
4. Perform the required actions or test the user account.
5. Log out of NetVoyant to return to your own user account.

Adding Pages to a User's My Pages Menu

The My Pages menu enables users to collect private report pages that contain the report views most useful to them. As a NetVoyant administrator, you can add a report page to a user's My Pages menu by proxying the user account and adding the report page directly. You must be a NetVoyant administrator to add report pages to other users' My Pages menus.

Note: When your installation of NetVoyant is registered to NetQoS Performance Center as a data source, roles and user accounts must be managed in NetQoS Performance Center. For more information about managing user accounts and roles in NetQoS Performance Center, see the *CA NetQoS Performance Center User Guide*.

Follow these steps:

1. Proxy the user's account.

For more information, see [“Proxying a User Account” on page 133](#).

2. Add the page or pages to the My Pages menu.
3. Log out of NetVoyant.

When the user logs in, NetVoyant displays the report page on the My Pages menu.

Proxying a Role

Proxying a role lets you validate significant changes or enhancements to available report pages. As a proxy, you view and manipulate pages in NetVoyant in exactly the same way as the role that you assume. You must be a NetVoyant administrator to proxy a role.

You can also proxy an individual user account. For more information, see [“Proxying a User Account” on page 133](#).

Note: When your installation of NetVoyant is registered to NetQoS Performance Center as a data source, roles and user accounts must be managed in NetQoS Performance Center. For more information about managing user accounts and roles in NetQoS Performance Center, see the *CA NetQoS Performance Center User Guide*.

Follow these steps:

1. From the Report Pages menu, select Administration.

The Administration page opens.

2. Under User Settings, click Roles.

The View User Roles page opens and lists the existing roles. Your current role appears at the top of the list in the displayed page.

3. Select the role and click Proxy.

The Current role appears at the top of the list changes to reflect the proxied role.

4. Perform the required actions or test the role.
5. Return to the View User Roles page and click Return Role.

Built-In NetVoyant Views

When you design or edit report pages in NetVoyant, you can add your own custom views or add the built-in views included with NetVoyant. These built-in NetVoyant views provide definitions for an extensive combination of data types and expressions and let you construct report pages that are useful for you and your organization.

Most of the built-in views can be modified by clicking the blue arrow at the top-left corner of the view, selecting Edit, and using the Custom View Wizard to modify the title, display style, and data expression calculations and settings.

For more information about creating custom views and editing existing views, see [“Using the Custom View Wizard”](#) on page 96.

This appendix covers the following topics:

- [“CBQoS Class Map Views”](#) on page 136
- [“CBQoS Group by Class Map Views”](#) on page 161
- [“CBQoS Top-N Views”](#) on page 170
- [“CBQoS Match Views”](#) on page 185
- [“CBQoS Police Views”](#) on page 187
- [“CBQoS Policy View”](#) on page 190
- [“CBQoS Queueing Views”](#) on page 191
- [“CBQoS RED Views”](#) on page 194
- [“CBQoS Traffic Shaping Views”](#) on page 197
- [“Device Views”](#) on page 206
- [“Ethernet Views”](#) on page 255
- [“Frame Relay Views”](#) on page 268
- [“Group List View”](#) on page 297
- [“Interface Views”](#) on page 297
- [“IP SLA Views”](#) on page 344
- [“Navigation Views”](#) on page 383
- [“NBAR Views”](#) on page 385
- [“Poll Instance Views”](#) on page 390
- [“Protocol Views”](#) on page 391
- [“Router and Switch Views”](#) on page 400

- “Service Exceptions Views” on page 428
- “T1 and T3 Views” on page 451
- “VoIP (IP SLA) Views” on page 472

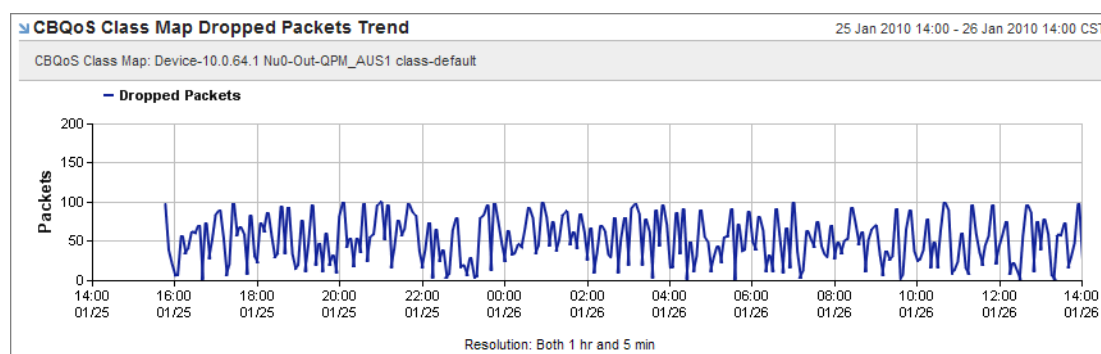
CBQoS CLASS MAP VIEWS

The following sections describe the views related to CBQoS Class Maps that you can add to your NetVoyant report pages. This information includes the view styles possible for each view, the metric used to render the view, and the standard report pages that include the view.

Note: Metrics and expressions for many of the built-in CBQoS views cannot be edited in the Custom View Wizard.

CBQoS Class Map Dropped Packets Trend

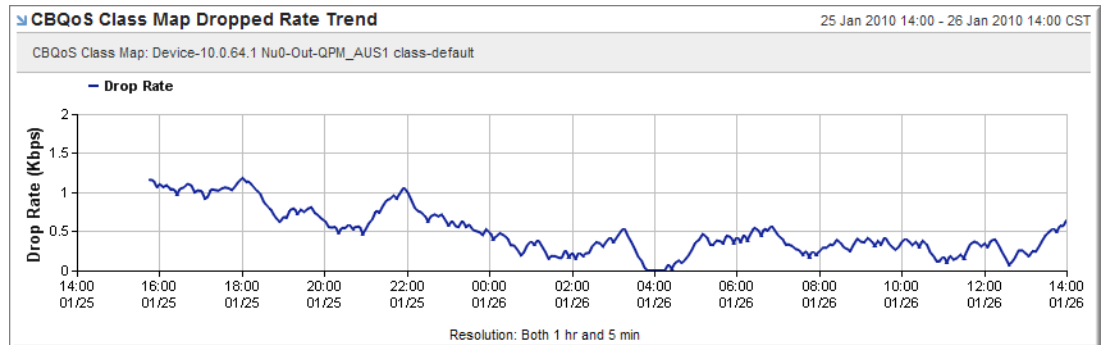
Displays the number of dropped packets for a class map over a selected period. The view provides a graphical or tabular comparison of the number of dropped packets over time.



- Context: This view requires a selected CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expression:
 - Dropped Packets: Number of dropped packets per class as the result of all features that can produce drops, such as police, random detect.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [CBQoS Class Map Detail Report](#).

CBQoS Class Map Dropped Rate Trend

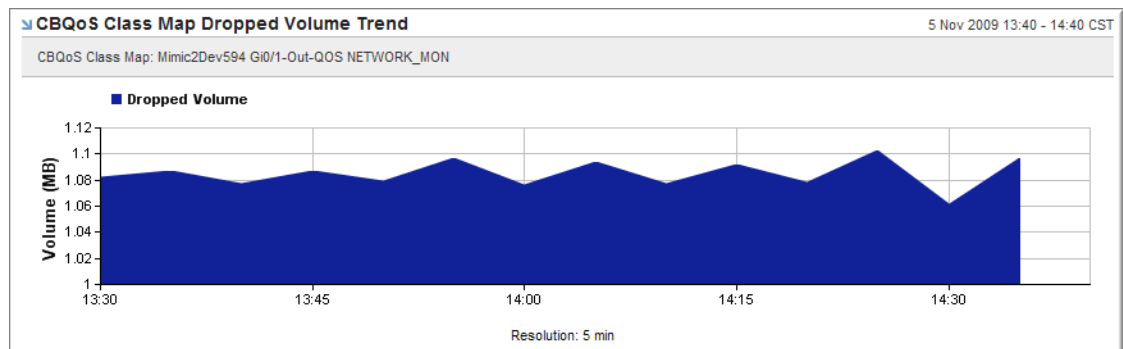
Displays the rate of dropped packets as a percentage for a class map over a selected period. The view provides a graphical or tabular comparison of the dropped packet rate over time.



- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expression:
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [CBQoS Class Map Detail Report](#) and [Class-Based QoS Class Map Capabilities Report](#).

CBQoS Class Map Dropped Volume Trend

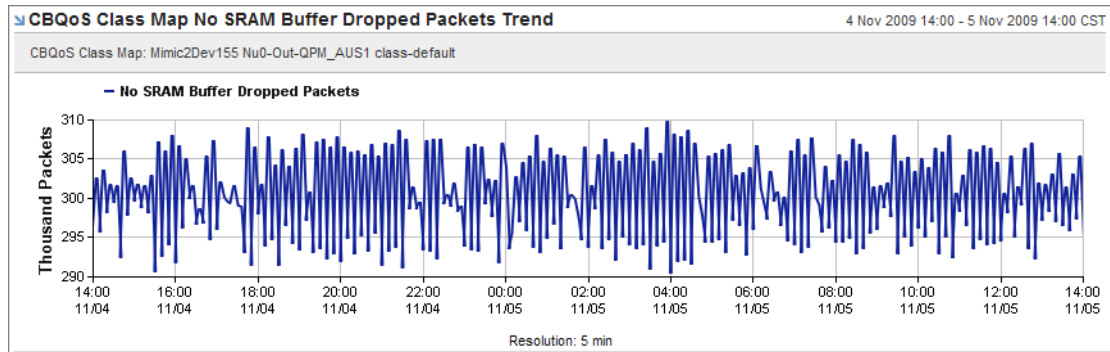
Displays the volume (bytes) of dropped packets for a class map over a selected period. The view provides a graphical or tabular comparison of this percentage over time.



- Context: This view requires a selected CBQoS Class Map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expression:
 - Dropped Volume: Number of dropped bytes per class as the result of all features that can produce drops, such as police, random detect.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [CBQoS Class Map Detail Report](#).

CBQoS Class Map No SRAM Buffer Dropped Packets Trend

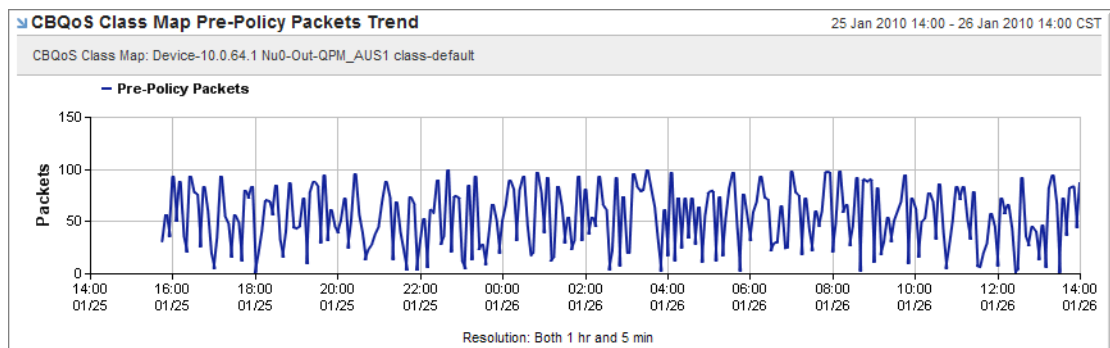
Displays the number of packets that were dropped due to a lack of SRAM buffers during output processing on an interface. The view provides a graphical or tabular comparison of this number over time.



- Context: This view requires a selected CBQoS Class Map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expression:
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [CBQoS Class Map Detail Report](#) and [Class-Based QoS Class Map Capabilities Report](#).

CBQoS Class Map Pre-Policy Packets Trend

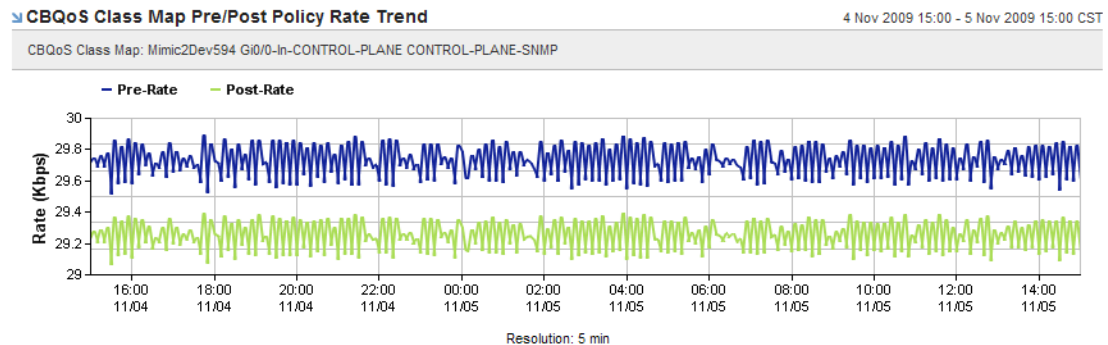
Displays the number of pre-policy (inbound) packets for the class map over a selected period. This view provides a graphical or tabular comparison of the pre-policy volume over time. Examining the behavior of the traffic before the effect of the policy helps identify the pattern of traffic before it passes through the interfaces where the policy is applied.



- Context: This view requires a selected CBQoS Class Map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expression:
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [CBQoS Class Map Detail Report](#).

CBQoS Class Map Pre/Post Policy Rate Trend

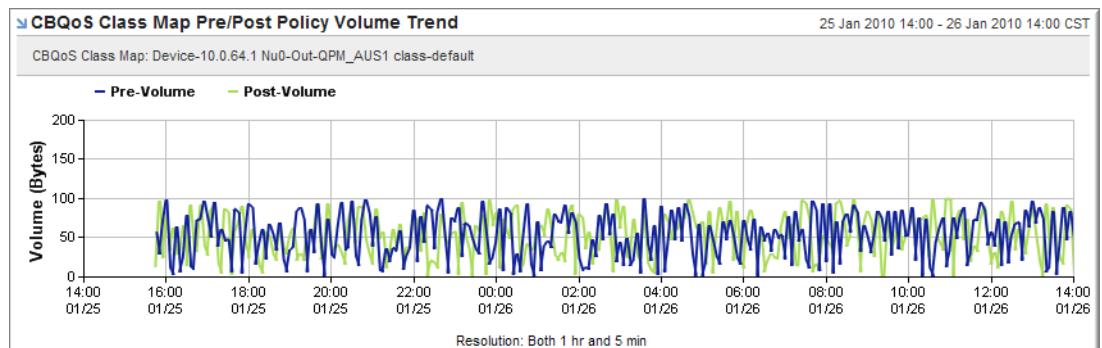
Displays the pre-policy and post-policy usage rate (Kbps) for a class map over a selected period. The view provides a graphical or tabular comparison of the usage rates over time.



- Context: This view requires a selected CBQoS Class Map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Rate: Bit rate of the traffic before executing QoS policies.
 - Post-Rate: Bit rate of the traffic after executing QoS policies.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [CBQoS Class Map Detail Report](#).

CBQoS Class Map Pre/Post Policy Volume Trend

Displays pre- and post-policy volumes for a class map over a selected period. The view provides a graphical or tabular comparison of the volume over time.

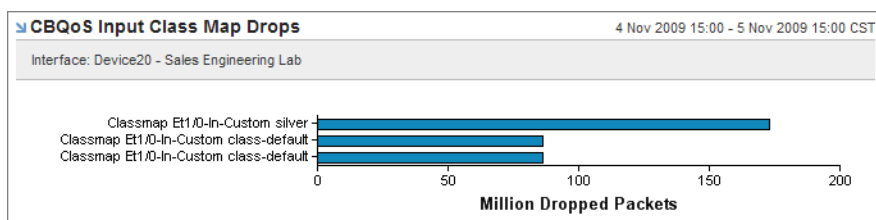


- Context: This view requires a selected CBQoS Class Map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Volume: Number of inbound octets before executing QoS policies.
 - Post-Volume: Number of inbound octets after executing QoS policies.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.

- Standard NetVoyant reports: This view is included in the [CBQoS Class Map Detail Report](#).

CBQoS Input Class Map Drops

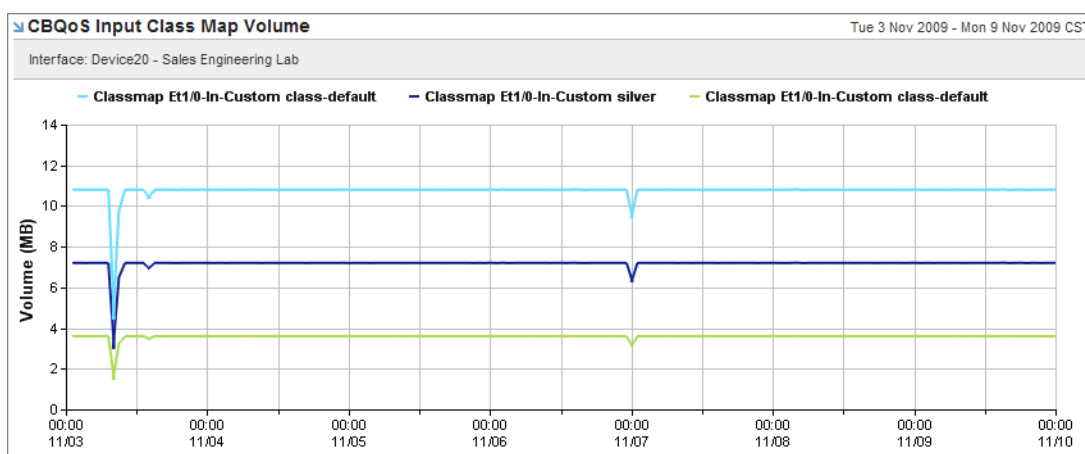
Displays the number of input class map dropped packets for a selected interface during a selected period. The view provides focus to those class maps on the interface with the highest number of inbound dropped packets.



- Context: This view requires a selected interface configured to display CB QoS input class maps.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expression:
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Interface QoS report and the Interface Details report.

CBQoS Input Class Map Volume

Displays the input class map volumes (KB) for a selected interface during a selected period. The view provides focus to the input class maps on the interface, comparing the volume of inbound packets.



Note: This view cannot be edited in the Custom View Wizard.

- Context: This view requires a selected interface configured for one or more CB QoS input class maps to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant.

- **Styles:** This view can be displayed as a bar chart, stacked bar chart, or table.
- **Standard NetVoyant reports:** This view is not included on the standard NetVoyant reports, but you can add it to a report page.
- **Standard NetQoS Performance Center reports:** This view is included in the Interface QoS report and the Interface Errors and Exceptions report.

CBQoS Input Policy Class Maps

Displays the input class maps for an interface, including the inbound pre- and post-policy number of packets, volume, bit rate, and number of drops, during the selected period. This view provides focus to the input policy class maps and their average performance statistics.

CBQoS Input Policy Class Maps								5 Nov 2009 14:53 - 15:53 CST
Interface: Device20 - Sales Engineering Lab								
Name	Pre Pkts	Pre Volume	Pre Bit Rate	Post Volume	Post Bit Rate	Drop Volume	Drop Bit Rate	Drops
class-default	9.00 M	10.80 MB	11.00 Kbps	10.80 MB	10.00 Kbps	3.60 MB	1.00 Kbps	3.60 M
silver	7.20 M	7.20 MB	2.00 Kbps	7.20 MB	1.00 Kbps	3.60 MB	1.00 Kbps	3.60 M
class-default	5.40 M	3.60 MB	4.00 Kbps	3.60 MB	3.00 Kbps	3.60 MB	1.00 Kbps	3.60 M
<input type="text"/> 1 of 1 Max Per Page: 10								

- **Context:** This view requires a selected interface configured to display CB QoS input class maps.
- **Data:** The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - **Pre Pkts:** Number of inbound packets before executing QoS policies.
 - **Pre Volume:** Number of inbound octets before executing QoS policies.
 - **Pre Bit Rate:** Bit rate of the inbound traffic before executing QoS policies.
 - **Post Volume:** Number of outbound octets after executing QoS policies.
 - **Post Bit Rate:** Bit rate of the outbound traffic after executing QoS policies.
 - **Drop Volume:** Number of dropped bytes per class as the result of all features that can produce drops, such as police, random detect.
 - **Drop Bit Rate:** Bit rate of the drops per class as the result of all features that can produce drops, such as police, random detect.
 - **Drops:** Number of dropped packets per class as the result of all features that can produce drops, such as police, random detect.
- **Styles:** This view can be displayed as a bar chart, stacked bar chart, or table.
- **Standard NetVoyant reports:** This view is not included on the standard NetVoyant reports, but you can add it to a report page.
- **Standard NetQoS Performance Center reports:** This view is included in the Interface QoS report.

CBQoS Input Policy Class Maps Post/Drops

Displays the input policy class maps with the greatest post-policy packet drops on a router over the selected period. This view provides focus to the input policy class maps on the router and their average post policy statistics.

Name	Post Util	Post Volume	Post Bit Rate	Drop Volume	Drop Bit Rate	Drops
silver	0.00%	1.04 GB	1.00 Kbps	519.68 MB	1.00 Kbps	519.68 M
class-default	0.00%	2.08 GB	13.00 Kbps	1.04 GB	2.00 Kbps	1.04 G

- Context: This view requires a selected router configured to display CB QoS.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Post Util: Average post policy usage rate
 - Post Volume: Number of outbound octets after executing QoS policies.
 - Post Bit Rate: Bit rate of the outbound traffic after executing QoS policies.
 - Drop Volume: Number of dropped bytes per class as the result of all features that can produce drops, such as police, random detect.
 - Drop Bit Rate: Bit rate of the drops per class as the result of all features that can produce drops, such as police, random detect.
 - Drops: Number of dropped packets per class as the result of all features that can produce drops, such as police, random detect.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

CBQoS Input Policy Class Maps Pre-vs-Post

Displays the pre- and post-policy performance (usage, volume, and bit rate) for input class map policies on a router during a selected period. This view provides focus to the input policy class maps on the router, comparing the pre- and post-policy performance statistics.

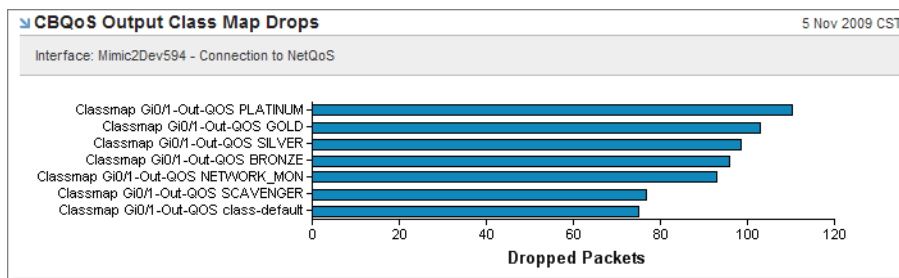
Name	Pre Util	Pre Pkts	Pre Volume	Pre Bit Rate	Post Util	Post Volume	Post Bit Rate
silver	0.00%	1.04 G	1.04 GB	2.00 Kbps	0.00%	1.04 GB	1.00 Kbps
class-default	0.00%	2.08 G	2.08 GB	15.00 Kbps	0.00%	2.08 GB	13.00 Kbps

- Context: This view requires a selected router configured to display CB QoS.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre Util: Average usage rate before executing QoS policies
 - Pre Pkts: Number of octets before executing QoS policies
 - Pre Volume: Volume of the traffic before executing QoS policies

- Pre Bit Rate: Bit rate of the traffic before executing QoS policies
- Post Util: Average usage rate after executing QoS policies
- Post Volume: Volume of the traffic after executing QoS policies
- Post Bit Rate: Bit rate of the traffic after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

CBQoS Output Class Map Drops

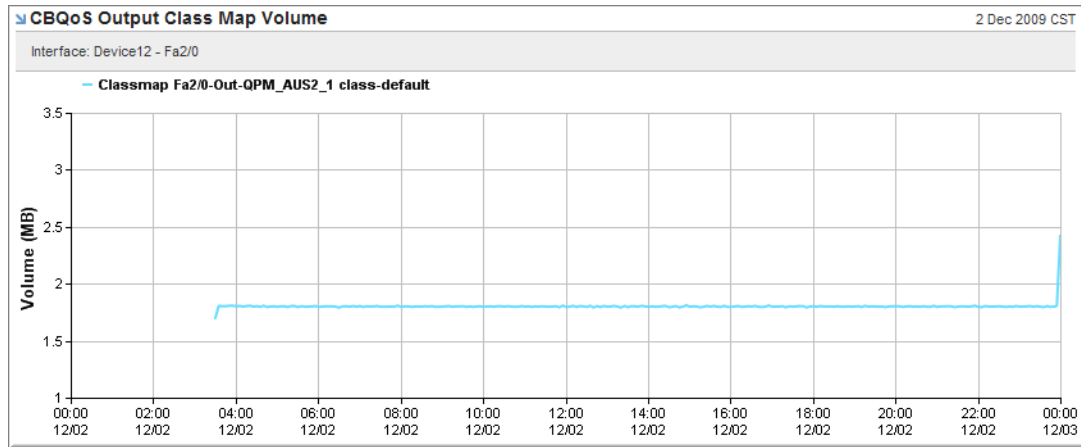
Displays post-policy usage, volume, and bit rate data, and data for dropped packets for the output class maps on a router or interface during a selected period. This view provides focus to the outbound policy performance and drops for class maps on the router or interface.



- Context: This view requires a selected interface configured to display CB QoS output class maps.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Post Util: Average usage rate after executing QoS policies
 - Post Volume: Volume of the traffic after executing QoS policies
 - Post Bit Rate: Bit rate of the traffic after executing QoS policies
 - Drop Volume: Number of dropped bytes per class as the result of all features that can produce drops, such as police, random detect.
 - Drop Bit Rate: Bit rate of the drops per class as the result of all features that can produce drops, such as police, random detect.
 - Packet Drops: Number of dropped packets per class as the result of all features that can produce drops, such as police, random detect.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Interface QoS report and the Interface Details report.

CBQoS Output Class Map Volume

Displays pre- and post-policy class map volume for outbound traffic for the class maps with the highest combined volume on an interface during the selected period. This view provides focus to the outbound policy volume for class maps on the interface.



Note: This view cannot be edited in the Custom View Wizard.

- Context: This view requires a selected interface configured for CB QoS to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Interface QoS report and the Interface Errors and Exceptions report.

CBQoS Output Policy Class Maps

Displays pre- and post-policy class map statistics for outbound traffic for the class maps with the highest pre-policy packet numbers on an interface during the selected period. This view provides focus to the outbound policy class map statistics for the interface.



CBQoS Output Policy Class Maps								
Interface: Device12 - Fa2/0								
Name	Pre Pkts	Pre Volume	Pre Bit Rate	Post Volume	Post Bit Rate	Drop Volume	Drop Bit Rate	Drops
class-default	295.16 M	442.73 MB	13.00 Kbps	442.73 MB	12.00 Kbps	73.79 MB	1.00 Kbps	73.79 M

- Context: This view requires a selected interface configured to display CB QoS.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre Pkts: Number of packets before executing QoS policies
 - Pre Volume: Volume of the traffic before executing QoS policies
 - Pre Bit Rate: Bit rate of the traffic before executing QoS policies

- Post Volume: Volume of the traffic after executing QoS policies
- Post Bit Rate: Bit rate of the traffic after executing QoS policies
- Drop Volume: Number of dropped bytes per class as the result of all features that can produce drops, such as police, random detect.
- Drop Bit Rate: Bit rate of the drops per class as the result of all features that can produce drops, such as police, random detect.
- Drops: Number of dropped packets per class as the result of all features that can produce drops, such as police, random detect.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

CBQoS Output Policy Class Maps Post/Drops

Displays post-policy usage, volume, and bit rate data, and data for the output class map dropped packets on a router during a selected period. This view provides focus to the outbound policy class map post-policy drop statistics for the router.

CBQoS Output Policy Class Maps Post/Drops						
Router: Device12						
Name	Post Util	Post Volume	Post Bit Rate	Drop Volume	Drop Bit Rate	Packet Drops
class-default	3.18% 	13.77 GB	23.00 Kbps	2.30 GB	3.00 Kbps	2.30 G
QPM_silver1	0.03% 	3.06 GB	10.00 Kbps	765.06 MB	1.00 Kbps	765.06 M

- Context: This view requires a selected router configured to display CB QoS.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Post Util: Average usage rate after executing QoS policies
 - Post Volume: Volume of the traffic after executing QoS policies
 - Post Bit Rate: Bit rate of the traffic after executing QoS policies
 - Drop Volume: Number of dropped bytes per class as the result of all features that can produce drops, such as police, random detect.
 - Drop Bit Rate: Bit rate of the drops per class as the result of all features that can produce drops, such as police, random detect.
 - Packet Drops: Number of dropped packets per class as the result of all features that can produce drops, such as police, random detect.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

CBQoS Output Policy Class Maps Pre-vs-Post

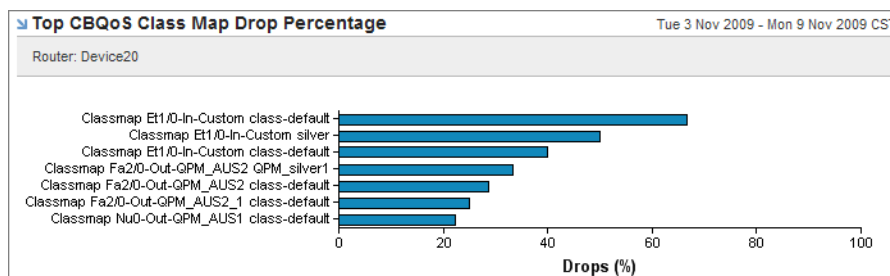
Displays the pre- and post-policy statistics for output class maps on a router during the selected period. This view provides a comparison of the outbound pre- and post-policy performance on the router.

Name	Pre Util	Pre Pkts	Pre Volume	Pre Bit Rate	Post Util	Post Volume	Post Bit Rate
class-default	3.19%	7.22 G	10.83 GB	26.00 Kbps	3.19%	10.83 GB	23.00 Kbps
QPM_silver1	0.03%	1.81 G	2.41 GB	11.00 Kbps	0.03%	2.41 GB	10.00 Kbps

- Context: This view requires a selected router configured to display CB QoS.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre Util: Average usage rate before executing QoS policies
 - Pre Pkts: Number of packets before executing QoS policies
 - Pre Volume: Volume of the traffic before executing QoS policies
 - Pre Bit Rate: Bit rate of the traffic before executing QoS policies
 - Post Util: Average usage rate after executing QoS policies
 - Post Volume: Volume of the traffic after executing QoS policies
 - Post Bit Rate: Bit rate of the traffic after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Class Map Drop Percentage

Displays the percentage of drops from all packets before executing QoS policies. Displays the drop percentages for a class map on those interfaces with the greatest drop percentage over the selected period. This view compares class map drop levels by interface.

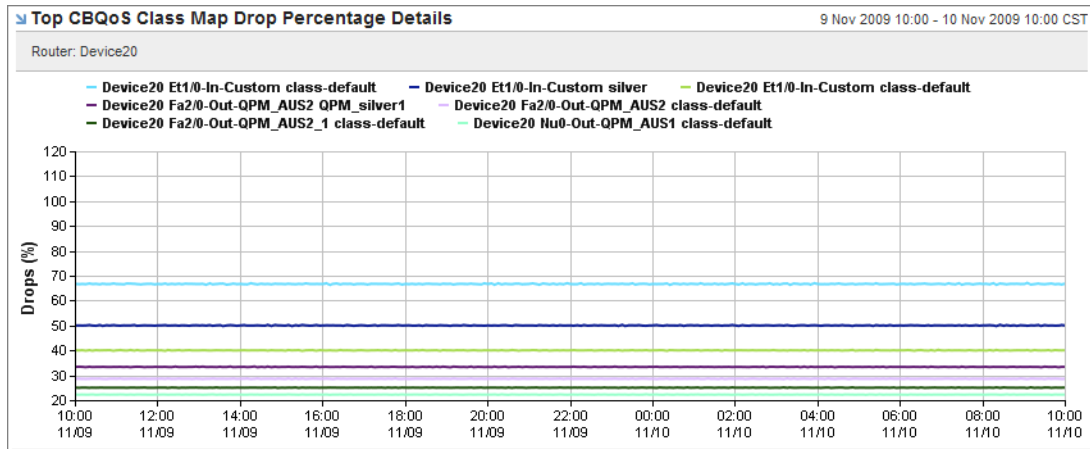


- Context: This view requires a selected CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

- Standard NetQoS Performance Center reports: This view is included in the Top Issues report and CBQoS Dashboard report.

Top CBQoS Class Map Drop Percentage Details

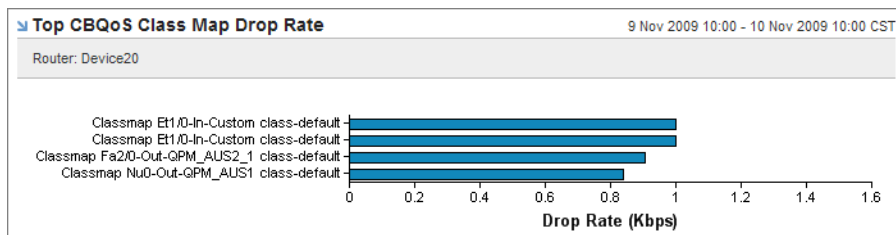
Displays the percentage of drops from all packets before executing the QoS policy. Displays the drop percentages for the interfaces with the highest drop percentages for a class map over the selected period. This view compares class map drop levels by interface.



- Context: This view requires a selected CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart only.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Class Map Drop Rate

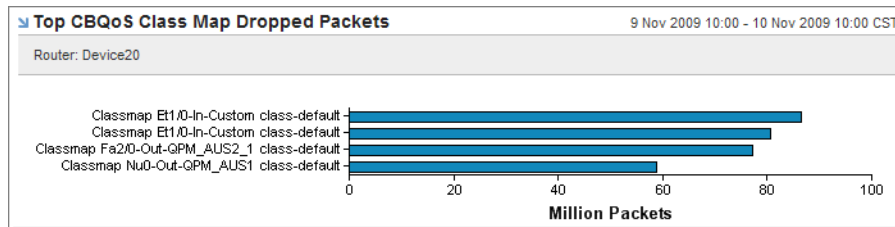
Displays the percentage of drops from all packets before executing the QoS policy. Displays the class map drop rates for a class map by interface, for those interfaces with the highest drop rates during the selected period. This view compares class map drop rates by interface.



- Context: This view requires a selected CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expression:
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [CB QoS Class Map Report](#).

Top CBQoS Class Map Dropped Packets

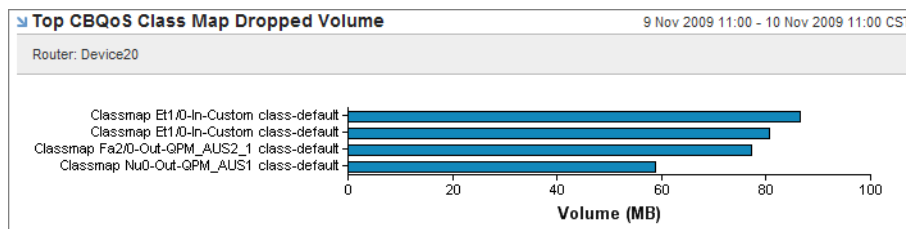
Displays the number of dropped packets per class as the result of all features that can produce drops, such as police, random detect. Displays the number of dropped packets for the interfaces on a router with the greatest number of drops during the selected period. This view compares drop rates by interface.



- Context: This view requires a selected router configured to display CB QoS.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [CB QoS Class Map Report](#).

Top CBQoS Class Map Dropped Volume

Displays the number of dropped bytes per class as the result of all features that can produce drops, such as police, random detect. Displays the volume of dropped packets for a class map on those interfaces with the greatest drop volume during the selected period. This view compares class map drop levels by interface.



- Context: This view requires a selected CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [CB QoS Class Map Report](#).

Top CBQoS Class Maps Pre-Post

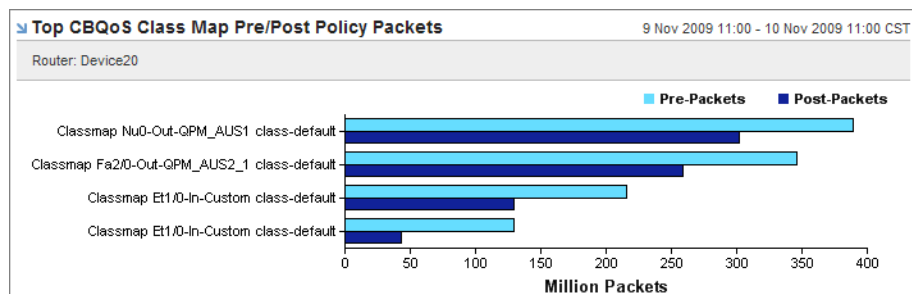
Displays the pre- and post-policy statistics for a class map on those interfaces with the greatest pre-policy usage during the selected period. This view provides focus to class map policy performance on those interfaces with the highest pre-policy usage.

Top CBQoS Class Maps Pre-Post							
Router: Device20							
Name	Pre Util	Pre Pkts	Pre Volume	Pre Bit Rate	Post Util	Post Volume	Post Bit Rate
Classmap Nu0-Out-QPM_AUS1 class-default	5.12%	388.80 M	604.80 MB	1.00 Kbps	5.12%	604.80 MB	0 bps
Classmap Fa2/0-Out-QPM_AUS2_1 class-default	4.43%	345.60 M	518.40 MB	13.00 Kbps	4.43%	518.40 MB	12.00 Kbps
Classmap Et1/0-In-Custom class-default	0.00%	216.00 M	259.20 MB	11.00 Kbps	0.00%	259.20 MB	10.00 Kbps
Classmap Et1/0-In-Custom class-default	0.00%	129.60 M	86.40 MB	4.00 Kbps	0.00%	86.40 MB	3.00 Kbps

- Context: This view requires a selected CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre Util: Average usage rate before executing QoS policies
 - Pre Pkts: Number of packets before executing QoS policies
 - Pre Volume: Volume of the traffic before executing QoS policies
 - Pre Bit Rate: Bit rate of the traffic before executing QoS policies
 - Post Util: Average usage rate after executing QoS policies
 - Post Volume: Volume of the traffic after executing QoS policies
 - Post Bit Rate: Bit rate of the traffic after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [CB QoS Class Map Report](#).

Top CBQoS Class Map Pre/Post Policy Packets

Compares the pre- and post-policy packet numbers for the interfaces with the greatest combined numbers for a class map during the selected period. This view compares of class map packet levels by interface.

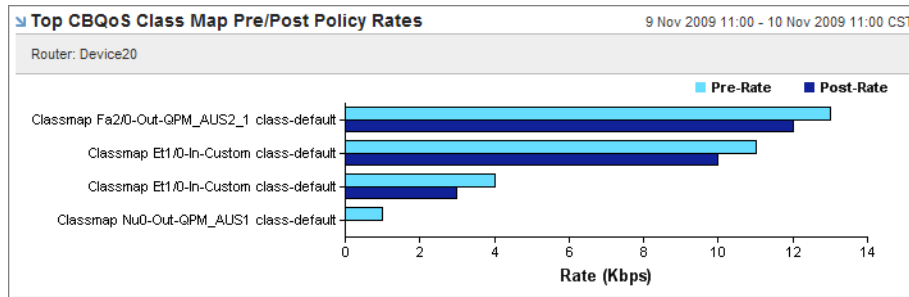


- Context: This view requires a selected router configured to display CB QoS.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Packets: Number of packets before executing QoS policies

- Post-Packets: Number of packets before executing QoS policies minus the number of dropped packets
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [CB QoS Class Map Report](#).

Top CBQoS Class Map Pre/Post Policy Rates

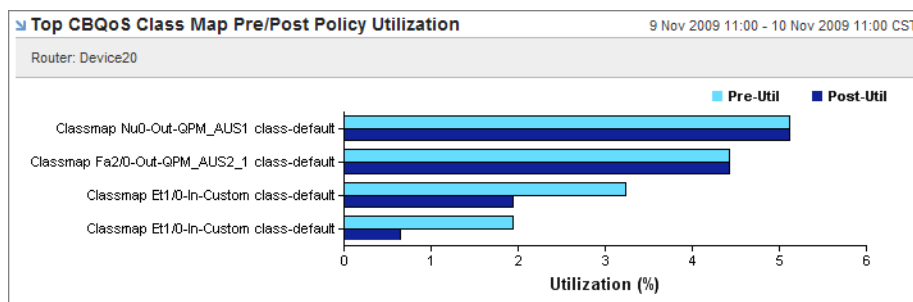
Displays the pre- and post-policy bit rates for a class map for those interfaces with the greatest combined bit rates during the selected period. This view compares class map bit rates by interface.



- Context: This view requires a selected CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Rate: Bit rate for packets before executing QoS policies
 - Post-Rate: Bit rate for packets after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [CB QoS Class Map Report](#).

Top CBQoS Class Map Pre/Post Policy Utilization

Displays the pre- and post-policy usage rates for a class map on those interfaces with the greatest combined usage rates during the selected period. This view compares class map usage by interface.

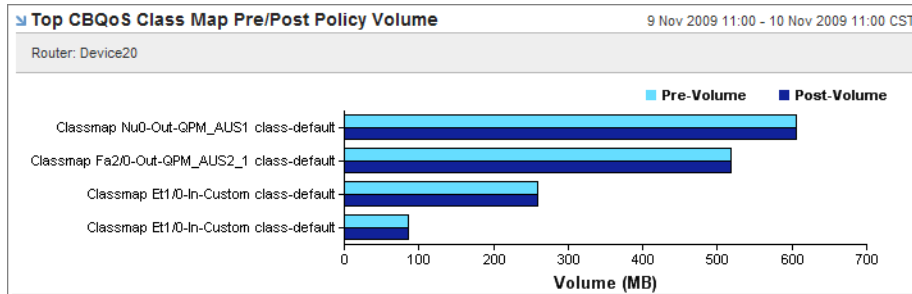


- Context: This view requires a selected CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Util: Average usage rate before executing QoS policies
 - Post-Util: Average usage rate after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.

- Standard NetVoyant reports: This view is included in the [CB QoS Class Map Report](#).

Top CBQoS Class Map Pre/Post Policy Volume

Displays the pre- and post-policy packet volumes for a class map on those interfaces with the greatest combined volumes during the selected period. This view compares class map volumes by interface.



- Context: This view requires a selected CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Volume: Volume of the traffic (number of octets) before executing QoS policies
 - Post-Volume: Volume of the traffic (number of octets) after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [CB QoS Class Map Report](#).

Top CBQoS Class Map Post/Drops

Displays the post-policy and packet drop statistics for the class maps with the greatest post-policy usage on a router during the selected period. This view provides focus to the class map post-policy drops on the router.

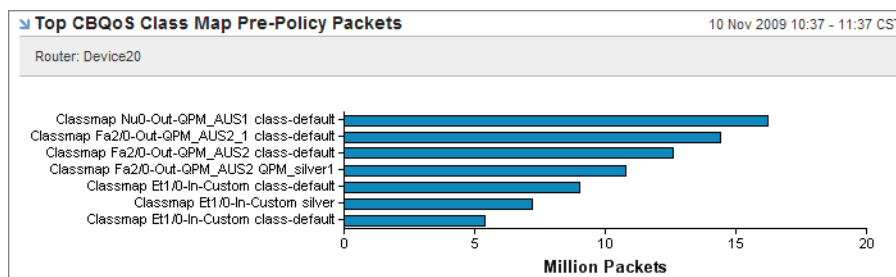
Name	Post-Util	Post-Volume	Post-Rate	Drop-Volume	Drop-Rate	Drop-Packets
Classmap Nu0-Out-QPM_AUS1 class-default	5.12%	25.19 MB	0 bps	3.60 MB	1.00 Kbps	3.60 M
Classmap Fa2/0-Out-QPM_AUS2_1 class-default	4.43%	21.60 MB	12.00 Kbps	3.60 MB	1.00 Kbps	3.60 M
Classmap Et1/0-In-Custom silver	0.00%	7.20 MB	1.00 Kbps	3.60 MB	1.00 Kbps	3.60 M
Classmap Et1/0-In-Custom class-default	0.00%	10.80 MB	10.00 Kbps	3.60 MB	1.00 Kbps	3.60 M
Classmap Et1/0-In-Custom class-default	0.00%	3.60 MB	3.00 Kbps	3.60 MB	1.00 Kbps	3.60 M

- Context: This view requires a selected router configured to display CB QoS.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Post-Util: Average usage rate after executing QoS policies
 - Post-Volume: Number of bytes of the traffic after executing QoS policies
 - Post-Rate: Bit rate of the traffic after executing QoS policies

- Drop-Volume: Number of dropped bytes per class as the result of all features that can produce drops, such as police, random detect.
- Drop-Rate: Bit rate of the drops per class as the result of all features that can produce drops, such as police, random detect.
- Drop-Packets: Number of dropped packets per class as the result of all features that can produce drops, such as police, random detect.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Router Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the CBQoS Dashboard report and the Router Interfaces report.

Top CBQoS Class Map Pre-Policy Packets

Displays the number of pre-policy packets for the class maps on a router with the greatest number during the selected period. This view compares class map pre-policy packet levels by interface.



- Context: This view requires a selected router configured to display CB QoS.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the CBQoS Dashboard report.

Top CBQoS Class Map Pre-vs-Post

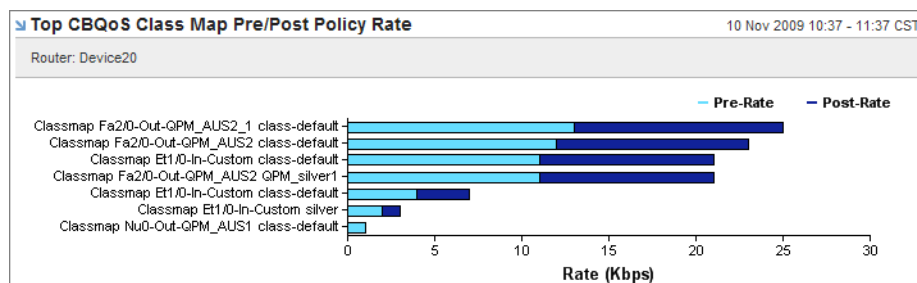
Displays the pre- and post-policy packet statistics for the class maps with the greatest pre-policy usage on a router during the selected period. This view compares pre- and post-policy class map performance on the router.

Top CBQoS Class Map Pre-vs-Post									
Router: Device20									
Name	Pre-Util	Post-Util	Pre-Volume	Post-Volume	Pre-Rate	Post-Rate	Pre-Packets	Post-Packets	
Classmap Nu0-Out-QPM_AUS1 class-default	5.12%	5.12%	25.20 MB	25.20 MB	1.00 Kbps	0 bps	16.20 M	12.60 M	
Classmap Fa2/0-Out-QPM_AUS2_1 class-default	4.43%	4.43%	21.60 MB	21.60 MB	13.00 Kbps	12.00 Kbps	14.40 M	10.80 M	
Classmap Et1/0-In-Custom silver	0.00%	0.00%	7.20 MB	7.20 MB	2.00 Kbps	1.00 Kbps	7.20 M	3.60 M	
Classmap Et1/0-In-Custom class-default	0.00%	0.00%	10.80 MB	10.80 MB	11.00 Kbps	10.00 Kbps	9.00 M	5.40 M	
Classmap Et1/0-In-Custom class-default	0.00%	0.00%	3.60 MB	3.60 MB	4.00 Kbps	3.00 Kbps	5.40 M	1.80 M	

- Context: This view requires a selected router configured to display CB QoS.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Util: Average usage rate before executing QoS policies
 - Post-Util: Average usage rate after executing QoS policies
 - Pre-Volume: Number of bytes of the traffic before executing QoS policies
 - Post-Volume: Number of bytes of the traffic after executing QoS policies
 - Pre-Rate: Bit rate of the traffic before executing QoS policies
 - Post-Rate: Bit rate of the traffic after executing QoS policies
 - Pre-Packets: Number of packets before executing QoS policies
 - Post-Packets: Number of packets before executing QoS policies minus the number of dropped packets
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Router Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the CBQoS Dashboard report and the Router Interfaces report.

Top CBQoS Class Map Pre/Post Policy Rate

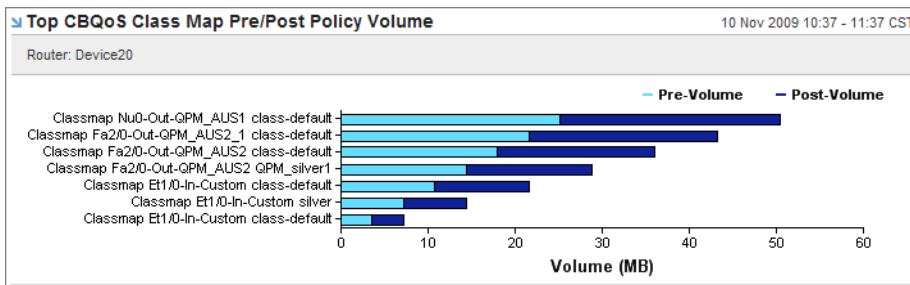
Displays the pre- and post-policy bit rates for the class maps with the greatest combined bit rate on a router during the selected period. This view compares the pre- and post-policy class map bit rates by interface.



- Context: This view requires a selected router configured for CB QoS to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Rate: Bit rate of the traffic before executing QoS policies
 - Post-Rate: Bit rate of the traffic after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Class Map Pre/Post Policy Volume

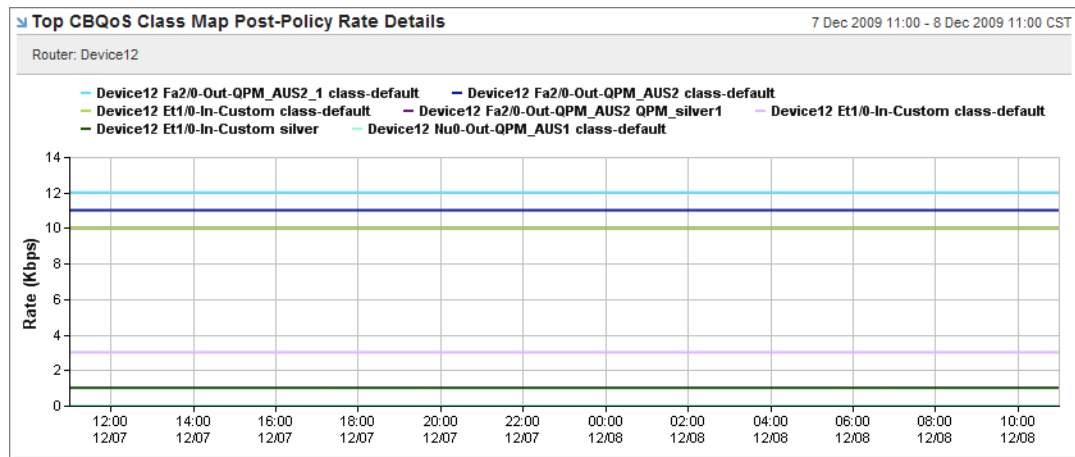
Displays the pre- and post-policy volumes for the class maps on a router with the greatest combined volume during the selected period. This view compares pre- and post-policy class map volumes by interface.



- Context: This view requires a selected router configured to display CB QoS.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Volume: Number of bytes of the traffic before executing QoS policies
 - Post-Volume: Number of bytes of the traffic after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Class Map Post-Policy Rate Details

Displays the CB QoS post-policy bit rates by interface for a class map during the selected period. This view compares post-policy bit rates by interface.



Note: This view cannot be edited in the Custom View Wizard.

- Context: This view requires a selected CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart only.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Class Map Utilization

Displays the pre- and post-policy usage by router and interface with the greatest pre-policy usage for a class map during the selected period. This view provides focus to the class map's highest pre- and post policy usage levels by interface.

Top CBQoS Class Map Utilization				
Router: Device20				
Name	Router	Interface	Pre Util	Post Util
Classmap Nu0-Out-QPM_AUS1 class-default	Device20	Linked to SWLEN003 Port 1/1	5.12%	5.12%
Classmap Fa2/0-Out-QPM_AUS2_1 class-default	Device20	backup internet link to BRBBD001 ATM4/0.-old(3816)	4.43%	4.43%
Classmap Et1/0-In-Custom class-default	Device20	if4 VPI=6 VCI=75	0.00%	0.00%
Classmap Et1/0-In-Custom class-default	Device20	if4 VPI=6 VCI=75	0.00%	0.00%

- Context: This view requires a selected CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre Util: Average usage rate before executing QoS policies
 - Pos Util: Average usage rate after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.

- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Class Maps

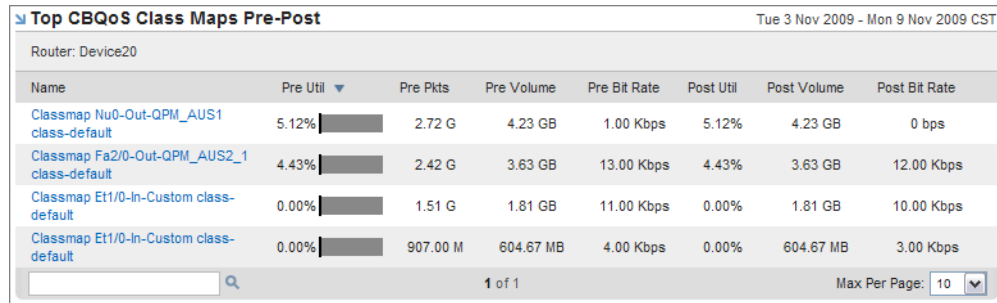
Displays the pre- and post-policy and drop statistics for a class map on those interfaces with the greatest number of pre-policy packets during the selected period. This view provides focus to the class map's performance levels on the most used interfaces.

Top CBQoS Class Maps										
Router: Device20										
Name	Pre Util	Pre Pkts	Pre Volume	Pre Bit Rate	Post Util	Post Volume	Post Bit Rate	Drop Volume	Drop Bit Rate	Packet Drops
Classmap Nu0-Out-QPM_AUS1 class-default	5.12%	2.72 G	4.23 GB	1.00 Kbps	5.12%	4.23 GB	0 bps	604.67 MB	1.00 Kbps	604.67 M
Classmap Fa2/0-Out-QPM_AUS2_1 class-default	4.43%	2.42 G	3.63 GB	13.00 Kbps	4.43%	3.63 GB	12.00 Kbps	604.67 MB	1.00 Kbps	604.67 M
Classmap Et1/0-In-Custom class-default	0.00%	1.51 G	1.81 GB	11.00 Kbps	0.00%	1.81 GB	10.00 Kbps	604.67 MB	1.00 Kbps	604.67 M
Classmap Et1/0-In-Custom class-default	0.00%	907.00 M	604.67 MB	4.00 Kbps	0.00%	604.67 MB	3.00 Kbps	604.67 MB	1.00 Kbps	604.67 M

- Context: This view requires a selected CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre Util: Average usage rate before executing QoS policies
 - Pre Pkts: Number of packets before executing QoS policies
 - Pre Volume: Volume of the traffic before executing QoS policies
 - Pre Bit Rate: Bit rate of the traffic before executing QoS policies
 - Post Util: Average usage rate after executing QoS policies
 - Post Volume: Volume of the traffic after executing QoS policies
 - Post Bit Rate: Bit rate of the traffic after executing QoS policies
 - Drop Volume: Number of dropped bytes per class as the result of all features that can produce drops, such as police, random detect.
 - Drop Bit Rate: Bit rate of the drops per class as the result of all features that can produce drops, such as police, random detect.
 - Packet Drops: Number of dropped packets per class as the result of all features that can produce drops, such as police, random detect.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Class Maps Pre-Post

Displays the pre- and post-policy statistics for a class map on those interfaces with the greatest number of pre-policy packets during the selected period. This view compares pre- and post-policy performance levels on the most used interfaces.



Name	Pre Util	Pre Pkts	Pre Volume	Pre Bit Rate	Post Util	Post Volume	Post Bit Rate
Classmap Nu0-Out-QPM_AUS1 class-default	5.12%	2.72 G	4.23 GB	1.00 Kbps	5.12%	4.23 GB	0 bps
Classmap Fa2/0-Out-QPM_AUS2_1 class-default	4.43%	2.42 G	3.63 GB	13.00 Kbps	4.43%	3.63 GB	12.00 Kbps
Classmap Et1/0-In-Custom class-default	0.00%	1.51 G	1.81 GB	11.00 Kbps	0.00%	1.81 GB	10.00 Kbps
Classmap Et1/0-In-Custom class-default	0.00%	907.00 M	604.67 MB	4.00 Kbps	0.00%	604.67 MB	3.00 Kbps

- Context: This view requires a selected CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre Util: Average usage rate before executing QoS policies
 - Pre Pkts: Number of packets before executing QoS policies
 - Pre Volume: Volume of the traffic before executing QoS policies
 - Pre Bit Rate: Bit rate of the traffic before executing QoS policies
 - Post Util: Average usage rate after executing QoS policies
 - Post Volume: Volume of the traffic after executing QoS policies
 - Post Bit Rate: Bit rate of the traffic after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [CB QoS Class Map Report](#).

Top Deviation From Norm - CBQoS Class Map Post-Util

Displays a table of the post-policy usage for the class maps in a group that have the highest deviation from the 30-day rolling baseline (normal) value for post-policy usage. This view provides focus to those interfaces where class map usage experiences the most rapid change.

Top Deviation from Normal views compare actual values (values during the selected period) to a calculated “normal” value and display those values that have deviated the most from that “normal” value. The “normal” values are calculated as averages using the past 30 days of baselines (generated for expressions as configured in the NetVoyant console). When you select a different period for a report, the “normal” is calculated differently. However, all are averages based on the hourly rollup values.

Top Deviation From Norm - CBQoS Class Map Post-Util					Tue 3 Nov 2009 - Mon 9 Nov 2009 CST	
Name	Metric	Normal	Actual	Deviation (%)		
Device20 Et1/0-In-Custom class-default	Utilization after executing any QoS policies.	0.00%	0.00%	-11.1		
BethsRouter.QA.local Gi1/0-Out-Standard1 class-default	Utilization after executing any QoS policies.	0.00%	0.00%	-2.0		
Mimic2Dev100 Et1/0-In-Custom class-default	Utilization after executing any QoS policies.	0.00%	0.00%	-0.3		
Device20 Et1/0-In-Custom silver	Utilization after executing any QoS policies.	0.00%	0.00%	-0.3		
Mimic2Dev100 Et1/0-In-Custom silver	Utilization after executing any QoS policies.	0.00%	0.00%	-0.3		
Mimic2Dev155 Et1/0-In-Custom silver	Utilization after executing any QoS policies.	0.00%	0.00%	-0.3		
Mimic2Dev155 Et1/0-In-Custom class-default	Utilization after executing any QoS policies.	0.00%	0.00%	-0.3		
Mimic2Dev155 Et1/0-In-Custom class-default	Utilization after executing any QoS policies.	0.00%	0.00%	-0.3		

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Deviation from Normal Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Deviation from Normal report and the CBQoS Dashboard report.

Top Deviation From Norm - CBQoS Class Map Pre-Util

Displays a table of the post-policy usage for the class maps in a group that have the highest deviation from the 30-day rolling baseline (normal) value for post-policy usage. This view provides focus to those interfaces where class map pre-policy usage experiences the most rapid change.









Top Deviation from Normal views compare actual values (values during the selected period) to a calculated “normal” value and display those values that have deviated the most from that “normal” value. The “normal” values are calculated as averages using the past 30 days of baselines (generated for expressions as configured in the NetVoyant console). When you select a different period for a report, the “normal” is calculated differently. However, all are averages based on the hourly rollup values.

Top Deviation From Norm - CBQoS Class Map Pre-Util					Tue 3 Nov 2009 - Mon 9 Nov 2009 CST	
Name	Metric	Normal	Actual	Deviation (%)		
Device20 Et1/0-In-Custom class-default	Utilization prior to executing any QoS policies.	0.00%	0.00%	-11.1		
BethsRouter.QA.local Gi1/0-Out-Standard1 class-default	Utilization prior to executing any QoS policies.	0.00%	0.00%	-2.0		
Mimic2Dev100 Et1/0-In-Custom class-default	Utilization prior to executing any QoS policies.	0.00%	0.00%	-0.3		
Mimic2Dev100 Et1/0-In-Custom silver	Utilization prior to executing any QoS policies.	0.00%	0.00%	-0.3		
Device20 Et1/0-In-Custom silver	Utilization prior to executing any QoS policies.	0.00%	0.00%	-0.3		
Mimic2Dev155 Et1/0-In-Custom class-default	Utilization prior to executing any QoS policies.	0.00%	0.00%	-0.3		
Mimic2Dev155 Et1/0-In-Custom silver	Utilization prior to executing any QoS policies.	0.00%	0.00%	-0.3		
Mimic2Dev155 Et1/0-In-Custom class-default	Utilization prior to executing any QoS policies.	0.00%	0.00%	-0.3		

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Deviation from Normal Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Deviation from Normal report and the CBQoS Dashboard report.

Top Projections - CBQoS Class Map Post-Util









Displays the average post-policy usage for the class maps in a group that have the highest post-policy usage growth rates, and the 30-, 60-, and 90-day projected values. The projection values are based upon the change in the 30-day rolling baseline over the last 90 days.

Top Projections - CBQoS Class Map Post-Util					10 Aug 2009 - 9 Nov 2009 CST	
Name	Metric	Last 90 Days	30 Days	60 Days	90 Days	
Mimic2Dev594 Gi0/1-Out-QoS NETWORK_MON	Utilization after executing any QoS policies.	23.25% 	23.24%	23.24%	23.24%	
Mimic2Dev594 Gi0/1-Out-QoS NETWORK_MON	Utilization after executing any QoS policies.	23.24% 	23.24%	23.24%	23.24%	
Mimic2Dev594 Gi0/1-Out-QoS NETWORK_MON	Utilization after executing any QoS policies.	23.24% 	23.24%	23.23%	23.23%	
Mimic2Dev100 Nu0-Out-QPM_AUS1 class-default	Utilization after executing any QoS policies.	5.14% 	5.14%	5.14%	5.14%	
Mimic2Dev155 Nu0-Out-QPM_AUS1 class-default	Utilization after executing any QoS policies.	5.14% 	5.14%	5.14%	5.14%	
Mimic2Dev100 Fa2/0-Out-QPM_AUS2_1 class-default	Utilization after executing any QoS policies.	4.45% 	4.45%	4.45%	4.45%	
Mimic2Dev155 Fa2/0-Out-QPM_AUS2_1 class-default	Utilization after executing any QoS policies.	4.45% 	4.45%	4.44%	4.44%	
Mimic2Dev156 Fa2/0-Out-QPM_AUS2_1 class-default	Utilization after executing any QoS policies.	4.45% 	4.44%	4.44%	4.43%	

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Projections Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Projections report.

Top Projections - CBQoS Class Map Pre-Util

Displays the average pre-policy usage for the class maps in a group that have the highest pre-policy usage growth rates. Also displays the 30-, 60-, and 90-day projected values. The projection values are based upon the change in the 30-day rolling baseline over the last 90 days.

Top Projections - CBQoS Class Map Pre-Util					10 Aug 2009 - 9 Nov 2009 CST	
Name	Metric	Last 90 Days	30 Days	60 Days	90 Days	
Mimic2Dev594 Gi0/1-Out-QoS NETWORK_MON	Utilization prior to executing any QoS policies.	45.97% 	45.94%	45.93%	45.91%	
Mimic2Dev594 Gi0/1-Out-QoS NETWORK_MON	Utilization prior to executing any QoS policies.	45.96% 	45.95%	45.95%	45.94%	
Mimic2Dev594 Gi0/1-Out-QoS NETWORK_MON	Utilization prior to executing any QoS policies.	45.96% 	45.95%	45.94%	45.94%	
Mimic2Dev100 Nu0-Out-QPM_AUS1 class-default	Utilization prior to executing any QoS policies.	5.14% 	5.14%	5.14%	5.14%	
Mimic2Dev155 Nu0-Out-QPM_AUS1 class-default	Utilization prior to executing any QoS policies.	5.14% 	5.14%	5.14%	5.14%	
Mimic2Dev100 Fa2/0-Out-QPM_AUS2_1 class-default	Utilization prior to executing any QoS policies.	4.45% 	4.45%	4.45%	4.45%	
Mimic2Dev156 Fa2/0-Out-QPM_AUS2_1 class-default	Utilization prior to executing any QoS policies.	4.45% 	4.44%	4.44%	4.44%	
Mimic2Dev155 Fa2/0-Out-QPM_AUS2_1 class-default	Utilization prior to executing any QoS policies.	4.45% 	4.45%	4.45%	4.45%	
<input type="text"/>					Search	Show Top: 10

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Projections Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Projections report.

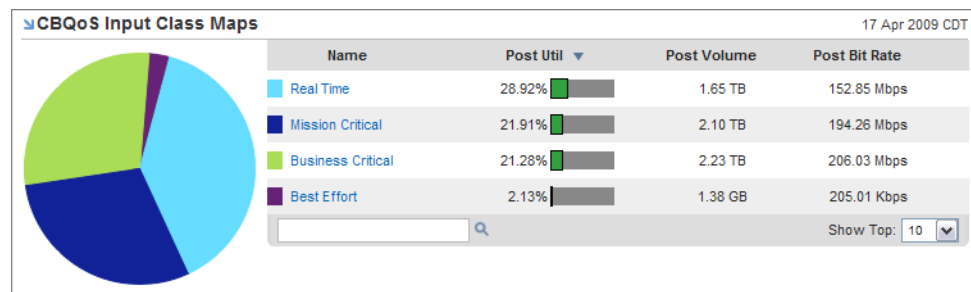
CBQoS GROUP BY CLASS MAP VIEWS

The following topics describe the views related to CBQoS groups by class map that you can add to your report pages. This information includes the view styles possible for each view, the metric used to render the view, and the standard report pages that include the view.

Note: Metrics for many of the CBQoS views cannot be edited in the Custom View Wizard.

CBQoS Input Class Maps

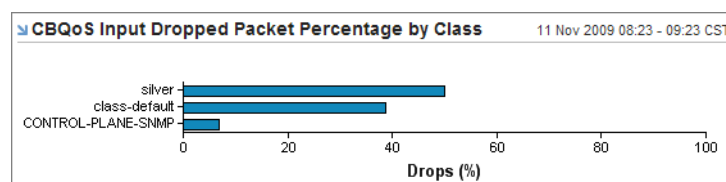
Displays statistics for the CBQoS Input Policy class maps with the highest post-policy usage rates in a reporting group during the selected period. This view provides a high-level comparison of those input class maps in the reporting group with the highest usage.



- Context: This view requires a selected reporting group or a managed object configured for CBQoS to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Post Util: Average usage rate after executing QoS policies
 - Post Volume: Volume of the traffic after executing QoS policies
 - Post Bit Rate: Bit rate of the traffic after executing QoS policies
- Styles: This view can be displayed as a table with pie chart only.
- Standard NetVoyant reports: This view is included in the [Class Based QoS Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Class Based Quality of Service report and CBQoS Dashboard report.

CBQoS Input Dropped Packet Percentage by Class

Displays the CBQoS Input Policy class maps in a reporting group with the highest drop percentage during the selected period. The percentage is calculated using the average of the number of dropped packets as the result of all features that can produce drops, such as police, random detect, divided by the number of packets before executing QoS policies. This view provides a high-level comparison of class map drop levels.



- Context: This view requires a selected reporting group or a managed object configured to display CBQoS.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Class Based QoS Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Class Based Quality of Service report.

CBQoS Input Policy Post-Drops by Class

Displays post-policy and drop statistics for the CBQoS Input Policy class maps in a reporting group with the highest pre-policy usage during the selected period. This view provides focus to those input class maps with the most post-policy drops.

Name	Post Util	Post Volume	Post Bit Rate	Drop Volume	Drop Bit Rate	Buffer Drops
CONTROL-PLANE-SNMP	2.29%	332.03 MB	87.00 Kbps	32.66 MB	3.00 Kbps	90.72 K
class-default	0.00%	10.07 GB	78.00 Kbps	4.84 GB	8.00 Kbps	4.84 G
silver	0.00%	4.84 GB	4.00 Kbps	2.42 GB	4.00 Kbps	2.42 G

- Context: This view requires a selected reporting group or a managed object configured to display CBQoS.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Post Util: Average usage rate after executing QoS policies
 - Post Volume: Volume of the traffic after executing QoS policies
 - Post Bit Rate: Bit rate of the traffic after executing QoS policies
 - Drop Volume: Number of dropped bytes per class as the result of all features that can produce drops, such as police, random detect.
 - Drop Bit Rate: Bit rate of the drops per class as the result of all features that can produce drops, such as police, random detect.
 - Buffer Drops: Number of dropped packets per class as the result of all features that can produce drops, such as police, random detect.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

CBQoS Input Policy Pre-Post Class Maps

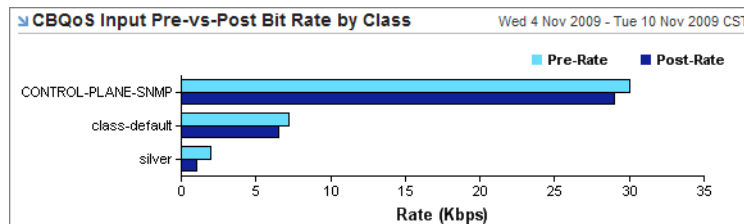
Displays pre- and post-policy statistics for the CBQoS Input Policy class maps with the highest pre-policy usage in a reporting group during the selected period. This view provides focus to those input class maps with the highest pre-policy usage.

Name	Pre Util	Pre Volume	Pre Bit Rate	Post Util	Post Volume	Post Bit Rate
CONTROL-PLANE-SNMP	2.53%	366.50 MB	90.00 Kbps	2.29%	332.03 MB	87.00 Kbps
class-default	0.00%	10.07 GB	86.00 Kbps	0.00%	10.07 GB	78.00 Kbps
silver	0.00%	4.84 GB	8.00 Kbps	0.00%	4.84 GB	4.00 Kbps

- Context: This view requires a selected reporting group or a managed object configured for CBQoS to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre Util: Average usage rate before executing QoS policies
 - Pre Volume: Volume of the traffic before executing QoS policies
 - Pre Bit Rate: Bit rate of the traffic before executing QoS policies
 - Post Util: Average usage rate after executing QoS policies
 - Post Volume: Volume of the traffic after executing QoS policies
 - Post Bit Rate: Bit rate of the traffic after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Class Based QoS Report](#) and [Operations Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Enterprise Summary report and the Class Based Quality of Service report.

CBQoS Input Pre-vs-Post Bit Rate by Class

Displays pre- and post-policy bit rates for the CBQoS Input Policy class maps with the highest pre-policy bit rates in a reporting group during the selected period. This view compares pre- and post-policy bit rates for input class maps.

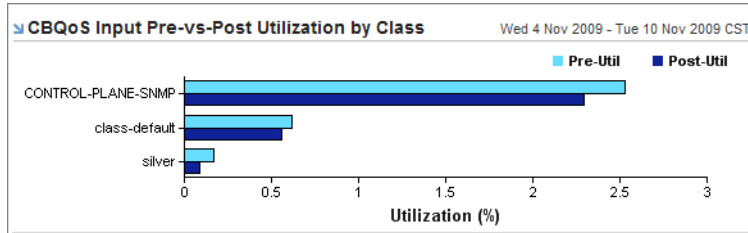


- Context: This view requires a selected reporting group or a managed object configured for CBQoS to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Rate: Bit rate of the traffic before executing QoS policies

- Post-Rate: Bit rate of the traffic after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

CBQoS Input Pre-vs-Post Utilization by Class

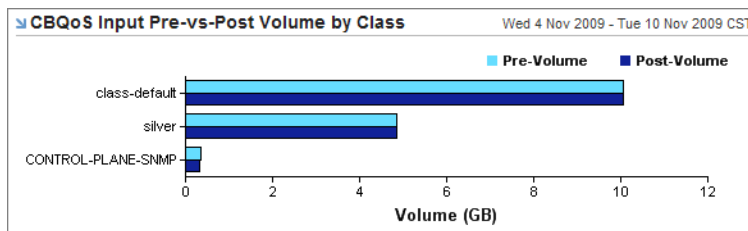
Displays pre- and post-policy usage rates for the CBQoS Input Policy class maps with the highest pre-policy usage rates in a reporting group during the selected period. This view compares pre- and post-policy usage for input class maps.



- Context: This view requires a selected reporting group or a managed object configured for CBQoS to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Util: Average usage rate before executing QoS policies
 - Post-Util: Average usage rate after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Class Based QoS Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Class Based Quality of Service report.

CBQoS Input Pre-vs-Post Volume by Class

Displays pre- and post-policy volumes for the CBQoS Input Policy class maps with the highest pre-policy volumes in a reporting group during the selected period. This view compares pre- and post-policy volumes for input class maps.

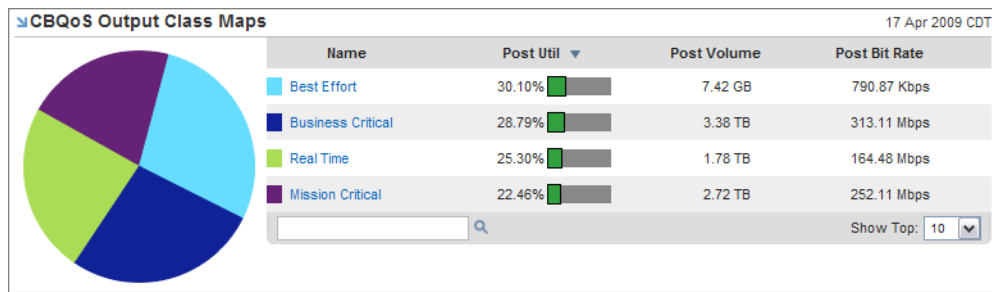


- Context: This view requires a selected group or CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Volume: Volume (bytes) of the traffic before executing QoS policies

- Post-Volume: Volume (bytes) of the traffic after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Class Based QoS Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Class Based Quality of Service report.

CBQoS Output Class Maps

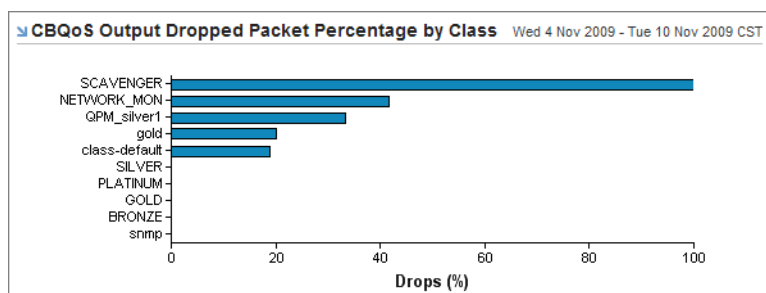
Displays the CBQoS Output Policy class maps with the highest post-policy usage rates in a reporting group during the selected period. This view provides a high-level comparison of those output class maps in the reporting group with the highest usage.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Post Util: Average usage rate after executing QoS policies
 - Post Volume: Volume of the traffic after executing QoS policies
 - Post Bit Rate: Bit rate of the traffic after executing QoS policies
- Styles: This view can be displayed table with pie chart only.
- Standard NetVoyant reports: This view is included in the [Class Based QoS Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Class Based Quality of Service report and CBQoS Dashboard report.

CBQoS Output Dropped Packet Percentage by Class

Displays the CBQoS Output Policy class maps in a reporting group with the highest drop percentage during the selected period. The percentage is calculated using the average number of dropped packets as the result of all features that can produce drops, such as police, random detect, divided by the number of packets before executing QoS policies. This view compares drop levels for output class maps.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Class Based QoS Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Class Based Quality of Service report.

CBQoS Output Policy Post-Drops by Class

Displays post-policy and drop statistics for the CBQoS Output Policy class maps in a reporting group with the highest pre-policy usage during the selected period. This view provides focus on post-policy performance for output class maps.











CBQoS Output Policy Post-Drops by Class							Wed 4 Nov 2009 - Tue 10 Nov 2009 CST	
Name	Post Util	Post Volume	Post Bit Rate	Drop Volume	Drop Bit Rate	Buffer Drops		
gold	125.25%	418.22 MB	200 bps	52.28 MB	1.00 Kbps	52.28 M		
NETWORK_MON	23.18%	6.72 GB	153.00 Kbps	6.56 GB	219.00 Kbps	18.14 M		
class-default	2.04%	504.10 GB	536.20 Kbps	7.31 GB	13.00 Kbps	7.31 G		
QPM_silver1	0.03%	9.68 GB	40.00 Kbps	2.42 GB	4.00 Kbps	2.42 G		
SILVER	0.00%	13.29 GB	228.00 Kbps	0 Bytes	0 bps	0		
BRONZE	0.00%	4.18 GB	159.00 Kbps	0 Bytes	0 bps	0		
PLATINUM	0.00%	1.12 MB	0 bps	0 Bytes	0 bps	0		
GOLD	0.00%	172.37 MB	0 bps	0 Bytes	0 bps	0		
SCAVENGER	0.00%	0 Bytes	0 bps	139.71 MB	0 bps	241.92 K		
snmp	0.00%	0 Bytes	0 bps	0 Bytes	0 bps	0		

- Context: This view requires a selected group to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Post Util: Average usage rate after executing QoS policies

- Post Volume: Volume of the traffic after executing QoS policies
- Post Bit Rate: Bit rate of the traffic after executing QoS policies
- Drop Volume: Number of dropped bytes per class as the result of all features that can produce drops, such as police, random detect.
- Drop Bit Rat: Bit rate of the drops per class as the result of all features that can produce drops, such as police, random detect.
- Buffer Drops: Number of dropped packets per class as the result of all features that can produce drops, such as police, random detect.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

CBQoS Output Policy Pre-Post Class Maps

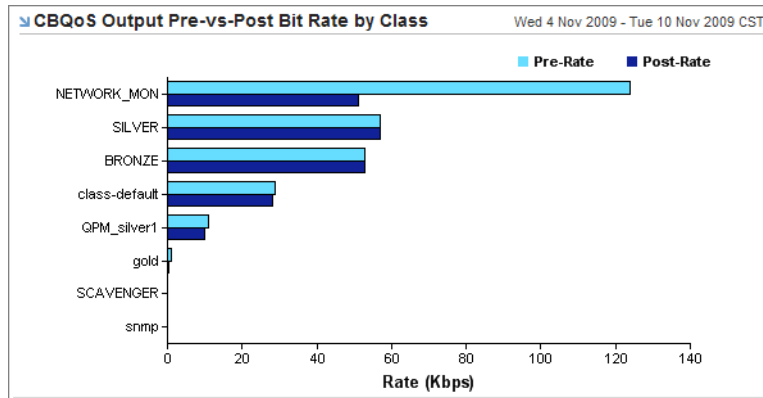
Displays pre- and post-policy statistics for the CBQoS Output Policy class maps in a reporting group with the highest pre-policy usage during the selected period. This view provides a comparison of pre- and post-policy performance for output class maps.

Name	Pre Util	Pre Volume	Pre Bit Rate	Post Util	Post Volume	Post Bit Rate
gold	125.24% 	418.21 MB	1.20 Kbps	125.25%	418.22 MB	200 bps
NETWORK_MON	45.83% 	13.28 GB	372.00 Kbps	23.18%	6.72 GB	153.00 Kbps
class-default	2.04% 	504.09 GB	549.40 Kbps	2.04%	504.10 GB	536.20 Kbps
QPM_silver1	0.03% 	9.68 GB	44.00 Kbps	0.03%	9.68 GB	40.00 Kbps
SILVER	0.00% 	13.29 GB	228.00 Kbps	0.00%	13.29 GB	228.00 Kbps
BRONZE	0.00% 	4.18 GB	159.00 Kbps	0.00%	4.18 GB	159.00 Kbps
PLATINUM	0.00% 	1.12 MB	0 bps	0.00%	1.12 MB	0 bps
GOLD	0.00% 	172.37 MB	0 bps	0.00%	172.37 MB	0 bps
SCAVENGER	0.00% 	139.71 MB	0 bps	0.00%	0 Bytes	0 bps
snmp	0.00% 	0 Bytes	0 bps	0.00%	0 Bytes	0 bps

- Context: This view requires a selected group to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre Util: Average usage rate before executing QoS policies
 - Pre Volume: Volume of the traffic before executing QoS policies
 - Pre Bit Rate: Bit rate of the traffic before executing QoS policies
 - Post Util: Average usage rate after executing QoS policies
 - Post Volume: Volume of the traffic after executing QoS policies
 - Post Bit Rate: Bit rate of the traffic after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Class Based QoS Report](#) and [Operations Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Enterprise Summary report and the Class Based Quality of Service report.

CBQoS Output Pre-vs-Post Bit Rate by Class

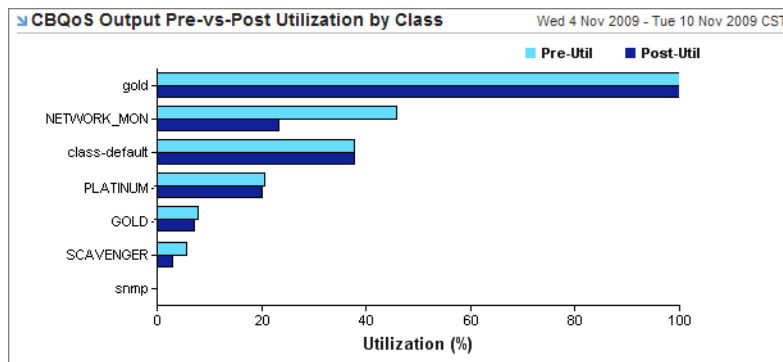
Displays pre- and post-policy bit rates for the CBQoS Output Policy class maps in a reporting group with the highest pre-policy bit rates during the selected period. This view compares pre- and post-policy bit rates for output class maps.



- Context: This view requires a selected group to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Rate: Bit rate of the traffic before executing QoS policies
 - Post-Rate: Bit rate of the traffic after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

CBQoS Output Pre-vs-Post Utilization by Class

Displays pre- and post-policy usage rates for the CBQoS Output Policy class maps in a reporting group with the highest pre-policy usage rates during the selected period. This view compares pre- and post-policy usage for output class maps.

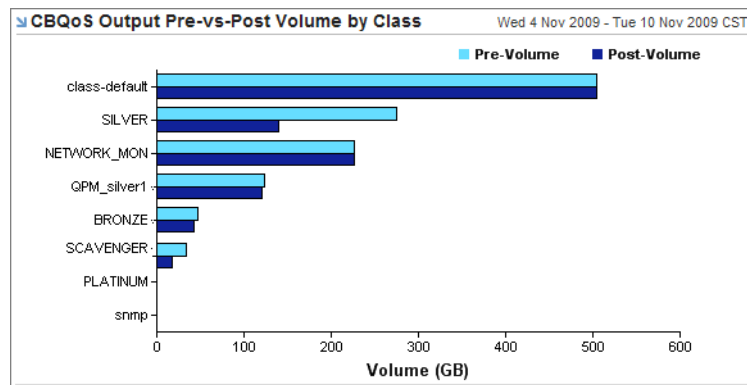


- Context: This view requires a selected group to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Util: Average usage rate before executing QoS policies
 - Post-Util: Average usage rate after executing QoS policies

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Class Based QoS Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Class Based Quality of Service report.

CBQoS Output Pre-vs-Post Volume by Class

Displays pre- and post-policy volumes for the CBQoS Input Policy class maps with the highest pre-policy volumes in a reporting group during the selected period. This view compares pre- and post-policy volumes for output class maps.



- Context: This view requires a selected group or CB QoS class map to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Volume: Volume (bytes) of the traffic before executing QoS policies
 - Post-Volume: Volume (bytes) of the traffic after executing QoS policies
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Class Based QoS Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Class Based Quality of Service report.

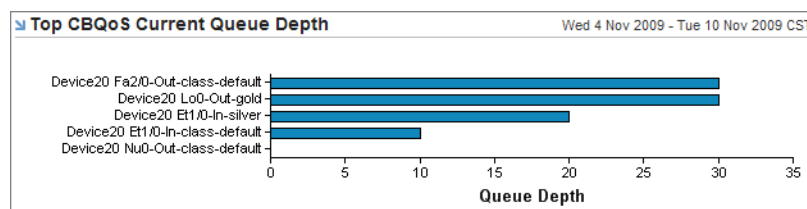
CBQoS Top-N Views

The following topics describe the views related to CBQoS Top-N data that you can add to your report pages. This information includes the view styles possible for each view, the metric used to render the view, and the standard report pages that include the view.

Note: Metrics for many of the CBQoS views cannot be edited in the Custom View Wizard.

Top CBQoS Current Queue Depth

Displays the queue depth for CBQoS packets for the interface/class maps in a reporting group or managed object with the highest queue depth during the selected period. This view provides focus to those interfaces with the worst (highest) queue sizes, which may be more prone to problems or failure.



- Context: This view requires a selected group or router configured for CB QoS Queueing to be displayed.
- Data: The metric used to render this view is `disquiet`, which corresponds to the QoS Queueing Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS IPHC Packets

Displays the number of CBQoS IPHC packets for the interface/class maps in a reporting group or managed object with the highest number during the selected period. This view provides focus to those interfaces with the highest number of IPHC packets.

- Context: This view requires a selected group or router configured to display CB QoS IPHC.
- Data: The metric used to render this view is `qosiphc`, which corresponds to the QoS IP Header Compression Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - UDP/RTP Sent Pkts: Number of outbound UDP/RTP packets
 - UDP Compressed Pkts: Number of outbound compressed UDP/RTP packets
 - TCP Sent Pkts: Number of outbound TCP packets
 - TCP Compressed Pkts: Number of outbound compressed TCP packets.

The view data is rendered and ordered according to which interfaces in a group or router have the highest total number of UDP/RTP (sent and compressed) and TCP (sent and compressed) over the selected period.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.

-
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS IPHC Rates

Displays the CBQoS IPHC rates for the interface/class maps in a reporting group or managed object with the highest number during the selected period. This view provides focus to those interfaces with the highest number of IPHC packets.

- Context: This view requires a selected group or router configured to display CB QoS IPHC.
- Data: The metric used to render this view is qosiphc, which corresponds to the QoS IP Header Compression Statistics dataset in NetVoyant. The view includes data for the following expressions:

- UDP/RTP Sent Rate: Number of outbound UDP/RTP byte rate
- TCP Sent Rate: Number of outbound TCP byte rate

The view data is rendered and ordered according to which interfaces in a group or router have the highest total UDP/RTP and TCP byte rate over the selected period.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS IPHC Volume

Displays the CB QoS IPHC volumes for the interface and class maps in a reporting group or managed object with the highest volume during the selected period. The view provides focus to those interfaces with the highest CB QoS IPHC volume, which may be more prone to problems or failure.

- Context: This view requires a selected group or router configured to display CB QoS IPHC.
- Data: The metric used to render this view is qosiphc, which corresponds to the QoS IP Header Compression Statistics dataset in NetVoyant. The view includes data for the following expressions:

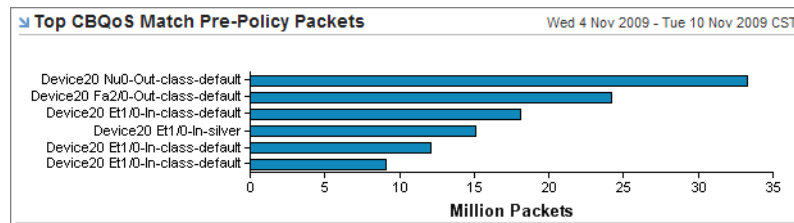
- UDP/RTP Saved Bytes: Number of UDP/RTP bytes saved due to IPHC
- UDP/RTP Sent Bytes: Number of outbound UDP/RTP bytes
- TCP Saved Bytes: Number of TCP bytes saved due to IPHC
- TCP Sent Bytes: Number of outbound TCP bytes

The view data is rendered and ordered according to which interfaces in a group or router have the highest total of saved and sent bytes for UDP/RTP and TCP over the selected period.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Match Pre-Policy Packets

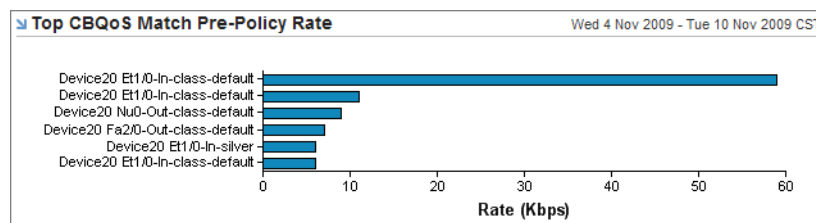
Displays the total number of CB QoS Match pre-policy packets for the interface and class maps in a reporting group or managed object with the highest number during the selected period. The view provides focus to those interfaces with the highest number of CB QoS Match pre-policy packets.



- Context: This view requires a selected group or router configured to display CB QoS Match policies.
- Data: The metric used to render this view is qosmatch, which corresponds to the QoS Match Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Match Pre-Policy Rate

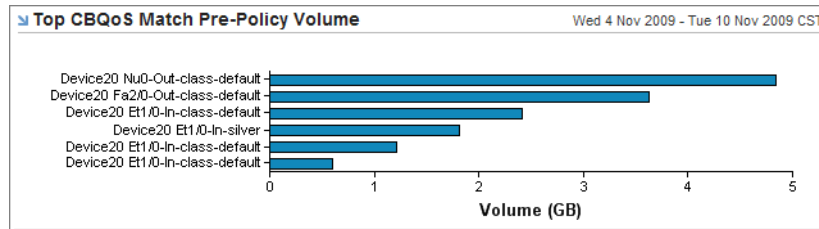
Displays the bit rate of CB QoS Match pre-policy packets for the interface/class maps in a reporting group or managed object with the highest rates during the selected period. The view provides focus to those interfaces with the highest bit rate of CB QoS Match pre-policy packets.



- Context: This view requires a selected group or router configured for CB QoS Match policies to be displayed.
- Data: The metric used to render this view is qosmatch, which corresponds to the QoS Match Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Match Pre-Policy Volume

Displays the total volume of CB QoS Match pre-policy packets for the interface/class maps in a reporting group or managed object with the highest volume during the selected period. The view provides focus to those interfaces with the highest volume of CB QoS Match pre-policy packets.



- Context: This view requires a selected group or router configured for CB QoS Match policies to be displayed.
- Data: The metric used to render this view is qosmatch, which corresponds to the QoS Match Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Match Statistics

Displays all of the CB QoS Match pre-policy packet statistics for the interface/class maps in a reporting group or managed object with the highest CB QoS Match volume during the selected period. The view provides focus to those interfaces with the highest volume of CB QoS Match pre-policy packets.

Name	Pre-Volume	Pre-Pkts	Pre-Rate
Device20 Nu0-Out-class-default	4.84 GB	33.24 M	9.00 Kbps
Device20 Fa2/0-Out-class-default	3.63 GB	24.18 M	7.00 Kbps
Device20 Et1/0-In-class-default	2.42 GB	18.13 M	6.00 Kbps
Device20 Et1/0-In-silver	1.81 GB	15.11 M	6.00 Kbps
Device20 Et1/0-In-class-default	1.21 GB	12.09 M	59.00 Kbps
Device20 Et1/0-In-class-default	604.41 MB	9.07 M	11.00 Kbps

- Context: This view requires a selected group or router configured for CB QoS Match policies to be displayed.
- Data: The metric used to render this view is qosmatch, which corresponds to the QoS Match Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre-Volume: Volume (bytes) of inbound packets before executing QoS policies
 - Pre-Pkts: Number of inbound packets before executing QoS policies
 - Pre-Rate: Bit rate of the traffic before executing QoS policies

The view data is rendered and ordered according to which interfaces in a group or router have the highest volume of pre-policy packets over the selected period.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.

-
- Standard NetVoyant reports: This view is included in the Router Capabilities report.
 - Standard NetQoS Performance Center reports: This view is included in the Router Interfaces report.

Top CBQoS Police Color Packets

Displays the total number of packets marked as Cfm/Exd/Vlt-to-Conform/Exceed/Violate by the CBQoS Policing feature for the interface/class maps in a reporting group or managed object with the highest number during the selected period. The view provides focus to those interfaces with the highest number of CB QoS Police Color packets.

- Context: This view requires a selected group or router configured for CB QoS Police Color to be displayed.
- Data: The metric used to render this view is qoscolor, which corresponds to the QoS Police Color Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Cfm Conform: Number of packets marked as Conform-Color by the previous node and treated as conforming by the policing feature on this node.
 - Cfm Exceed: Number of packets marked as Conform-Color by the previous node and treated as exceeding by the policing feature on this node.
 - Cfm Violate: Number of packets marked as Conform-Color by the previous node and treated as violating by the policing feature on this node.
 - Exd Exceed: Number of packets marked as Exceed-Color by the previous node and treated as exceeding by the policing feature on this node
 - Vlt Violate: Number of packets marked as Exceed-Color by the previous node and treated as violating by the policing feature on this node.

The view data is rendered and ordered according to which interfaces in a group or router have the highest total number of Police Color packets (Conform-Color and Exceed-Color) over the selected period.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Police Color Volume

Displays the total volume of packets marked as Cfm/Exd/Vlt-to-Conform/Exceed/Violate by the CBQoS Policing feature for the interface/class maps in a reporting group or managed object with the highest number during the selected period. The view provides focus to those interfaces with the highest volume of CB QoS Police Color packets.

- Context: This view requires a selected group or router configured for CB QoS Police Color to be displayed.
- Data: The metric used to render this view is qoscolor, which corresponds to the QoS Police Color Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Cfm Conform: Number of bytes marked as Conform-Color by the previous node and treated as conforming by the policing feature on this node.
 - Cfm Exceed: Number of bytes marked as Conform-Color by the previous node and treated as exceeding by the policing feature on this node.

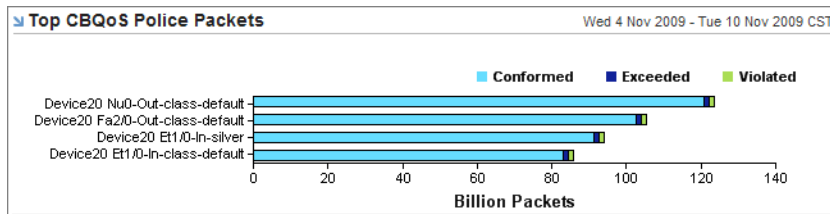
- Cfm Violate: Number of bytes marked as Conform-Color by the previous node and treated as violating by the policing feature on this node.
- Exd Exceed: Number of bytes marked as Exceed-Color by the previous node and treated as exceeding by the policing feature on this node
- Exd Violate: Number of bytes marked as Exceed-Color by the previous node and treated as violating by the policing feature on this node.
- Vlt Violate: Number of bytes marked as Violate-Color by the previous node and treated as violating by the policing feature on this node.

The view data is rendered and ordered according to which interfaces in a group or router have the highest total volume of Police Color packets (Conform-Color and Exceed-Color) over the selected period.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Police Packets

Displays the total volume of packets marked by the CBQoS Policing feature for the interface/class maps in a reporting group or managed object with the highest volume during the selected period. This view provides focus to policy performance on those interfaces with the highest volume of CB QoS Police packets.



- Context: This view requires a selected group or router configured for CB QoS Policing to be displayed.
- Data: The metric used to render this view is qospolice, which corresponds to the QoS Police Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Conformed: Number of packets treated as conforming by the policing feature.
 - Exceeded: Number of packets treated as non-conforming by the policing feature.
 - Violated: Number of packets treated as violated by the policing feature.

The view data is rendered and ordered according to which interfaces in a group or router have the highest total number of Policing packets (Conform, Exceed, and Violate) over the selected period.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Router Capabilities Report](#).

Top CBQoS Police Statistics

Displays the number of packets, by type, marked by the CBQoS Policing feature for the interface/class maps in a reporting group or managed object with the highest volume of conformed packets during the selected period. This view provides focus to policy performance on those interfaces with the highest volume of CB QoS Police packets.

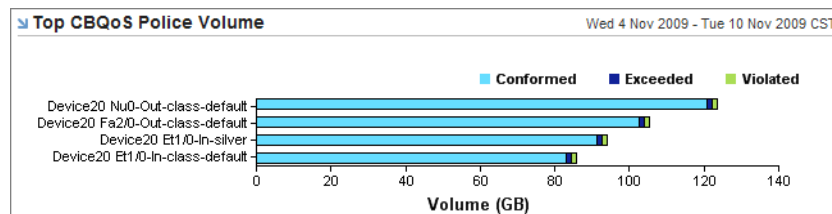
- Context: This view requires a selected group or router configured for CB QoS Policing to be displayed.
- Data: The metric used to render this view is qospolice, which corresponds to the QoS Police Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Conformed Volume: Number of bytes treated as conforming by the policing policy.
 - Conformed Packets: Number of packets treated as conforming by the policing policy.
 - Exceeded Volume: Number of bytes treated as exceeding by the policing policy.
 - Exceeded Packets: Number of packets treated as exceeding by the policing policy.
 - Violated Volume: Number of bytes treated as violated by the policing policy.
 - Violated Packets: Number of packets treated as violated by the policing policy.

The view data is rendered and ordered according to which interfaces in a group or router have the highest total number of Policing packets (Conform, Exceed, and Violate) over the selected period.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Router Interfaces report.

Top CBQoS Police Volume

Displays the volume of packets, by type, marked by the CBQoS Policing feature for the interface/class maps in a reporting group or managed object with the highest volume during the selected period. The view provides focus to policy performance on those interfaces with the highest volume of CB QoS Police packets.



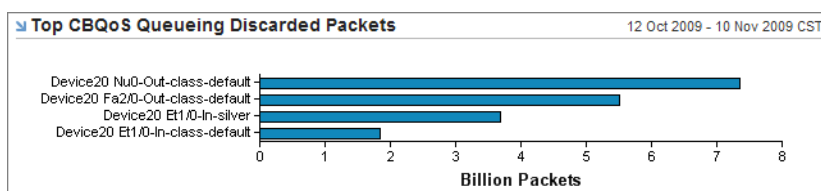
- Context: This view requires a selected group or router configured for CB QoS Policing to be displayed.
- Data: The metric used to render this view is qospolice, which corresponds to the QoS Police Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Conformed: Number of bytes treated as conforming by the policing policy.
 - Exceeded: Number of bytes treated as exceeding by the policing policy.
 - Violated: Number of bytes treated as violated by the policing policy.

The view data is rendered and ordered according to which interfaces in a group or router have the highest total volume of Policing packets (Conform, Exceed, and Violate) over the selected period.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Class Map Capabilities Report](#).

Top CBQoS Queueing Discarded Packets

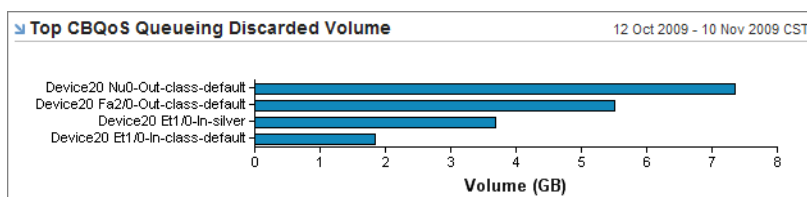
Displays the number of packets discarded by the CBQoS Queueing feature for the interface/class maps in a reporting group or managed object with the highest number during the selected period. The view provides focus to those interfaces with the highest number of CB QoS Queueing discards.



- Context: This view requires a selected group or router configured for CB QoS Queueing to be displayed.
- Data: The metric used to render this view is qosqueue, which corresponds to the QoS Queueing Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Top Issues report.

Top CBQoS Queueing Discarded Volume

Displays the volume (bytes) discarded by the CBQoS Queueing feature for the interface/class maps in a reporting group or managed object with the highest volume during the selected period. The view provides focus to those interfaces with the highest volume of CB QoS Queueing discards.



- Context: This view requires a selected group or router configured for CB QoS Queueing to be displayed.
- Data: The metric used to render this view is qosqueue, which corresponds to the QoS Queueing Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Queueing Statistics

Displays the usage of CBQoS Queueing, along with the number and volume of discarded packets, for the interface/class maps in a reporting group or managed object with the highest usage during the selected period. The view provides focus to policy performance on those interfaces with the highest CB QoS Queueing usage.

Name	Utilization	Queue Depth	Max Q Depth	Discard Volume	Discard Pkts
Device20 Fa2/0-Out-class-default	46.88%	30	64	5.52 GB	5.52 G
Device20 Et1/0-In-silver	31.25%	20	64	3.68 GB	3.68 G
Device20 Et1/0-In-class-default	2.00%	10	500	1.84 GB	1.84 G
Device20 Nu0-Out-class-default	0.00%	0	0	7.35 GB	7.35 G

- Context: This view requires a selected reporting group or router configured for CB QoS Queueing to be displayed.
- Data: The metric used to render this view is qosqueue, which corresponds to the QoS Queueing Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization: Where the maximum queue depth value is greater than 0, a percentage value equal to the current queue depth divided by the maximum queue depth.
 - Queue Depth: Current depth of the queue.
 - Max Q Depth: Maximum depth of the queue.
 - Discard Volume: Number of octets, associated with this class, that were dropped by queueing.
 - Discard Pkts: Number of packets, associated with this class, that were dropped by queueing.

The view data is rendered and ordered according to which interfaces in a group or router have the highest usage of the CB QoS Queueing policy over the selected period.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Router Capabilities Report](#) and [Class-Based QoS Class Map Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Enterprise Dashboard report and the Router Interfaces report.

Top CBQoS RED Packets

Displays the total number of dropped CBQoS RED packets, and the queue size for the interface/class maps in a reporting group or managed object with the highest number of random drops during the selected period. The view provides focus to those interfaces with the worst (highest) random drop values, which may be more prone to problems or failure.

Name	Random Drop	Tail Drop	Transmit	ECN	Queue size
Device20 RED Class 0 Fa2/0-Out-class-default	0	0	604.42 M	0	10
Device20 RED Class 1 Fa2/0-Out-class-default	0	0	1.21 G	0	20
Device20 RED Class 2 Fa2/0-Out-class-default	0	0	1.81 G	0	30
Device20 RED Class 3 Fa2/0-Out-class-default	0	0	2.42 G	0	40
Device20 RED Class 4 Fa2/0-Out-class-default	0	0	3.02 G	0	50
Device20 RED Class 5 Fa2/0-Out-class-default	0	0	3.63 G	0	60
Device20 RED Class 6 Fa2/0-Out-class-default	0	0	4.23 G	0	70
Device20 RED Class 7 Fa2/0-Out-class-default	0	0	4.84 G	0	80

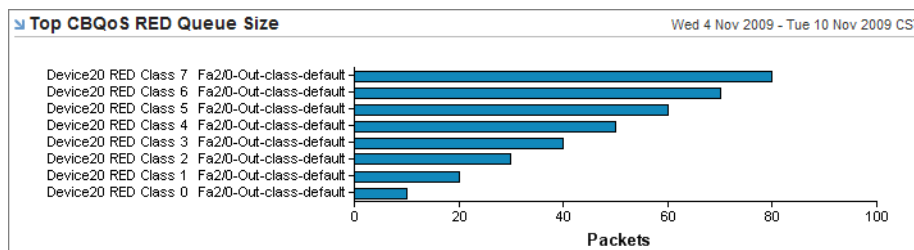
- Context: This view requires a selected group or router configured for CB QoS RED to be displayed.
- Data: The metric used to render this view is qosred, which corresponds to the QoS Random Early Detect Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Random: Packets dropped when the number of packets in the associated queue was greater than the minimum threshold and less than the maximum threshold
 - Tail: Bytes dropped when the number of packets in the associated queue was greater than the maximum threshold
 - Xmit: Number of bytes transmitted
 - ECN: Bytes ecn marked when the number of packets in the associated queue was greater than the minimum threshold and less than the maximum threshold

The view data is rendered and ordered according to which interfaces in a group or router have the highest number of random drops over the selected period.

- Styles: This view can be displayed as a table or bar chart.
- Standard NetVoyant reports: This view is included in the [Router Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Interfaces report.

Top CBQoS RED Queue Size

Displays the average CBQoS RED queue size for the interface/class maps in a reporting group or managed object with the highest sizes during the selected period. The view provides focus to those interfaces with the highest RED queue sizes.



- Context: This view requires a selected group or router configured for CB QoS RED to be displayed.
- Data: The metric used to render this view is qosred, which corresponds to the QoS Random Early Detect Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS RED Volume

Displays the CBQoS RED volumes for the interface/class maps in a reporting group or managed object with the highest volume of random drops during the selected period. The view provides focus to those interfaces with the highest volume, which may be more prone to problems or failure of CB QoS RED policy.

A table titled 'Top CBQoS RED Volume' showing random drop statistics for the same eight interface/class maps as the bar chart. The table includes columns for Name, Random Drop (with a bar chart), Tail Drop, Transmit, ECN, and Queue size. The Random Drop values are in GB, and the Queue size values are in packets. The table is sorted by Random Drop in descending order.

Name	Random Drop	Tail Drop	Transmit	ECN	Queue size
Device20 RED Class 7 Fa2/0-Out-class-default	4.84 GB	0 Bytes	0 Bytes	0 Bytes	80
Device20 RED Class 6 Fa2/0-Out-class-default	4.23 GB	0 Bytes	0 Bytes	0 Bytes	70
Device20 RED Class 5 Fa2/0-Out-class-default	3.63 GB	0 Bytes	0 Bytes	0 Bytes	60
Device20 RED Class 4 Fa2/0-Out-class-default	3.02 GB	0 Bytes	0 Bytes	0 Bytes	50
Device20 RED Class 3 Fa2/0-Out-class-default	2.42 GB	0 Bytes	0 Bytes	0 Bytes	40
Device20 RED Class 2 Fa2/0-Out-class-default	1.81 GB	0 Bytes	0 Bytes	0 Bytes	30
Device20 RED Class 1 Fa2/0-Out-class-default	1.21 GB	0 Bytes	0 Bytes	0 Bytes	20
Device20 RED Class 0 Fa2/0-Out-class-default	604.42 MB	0 Bytes	0 Bytes	0 Bytes	10

- Context: This view requires a selected group or router configured for CB QoS RED to be displayed.
- Data: The metric used to render this view is qosred, which corresponds to the QoS Random Early Detect Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Random: Number of bytes dropped when the number of packets in the associated queue was greater than the minimum threshold and less than the maximum threshold

- Tail: Number of bytes dropped when the number of packets in the associated queue was greater than the maximum threshold
- Xmit: Number of bytes transmitted
- ECN: Number of bytes ecn marked when the number of packets in the associated queue was greater than the minimum threshold and less than the maximum threshold

The view data is rendered and ordered according to which interfaces in a group or router have the highest volume of RED random drops.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Router Capabilities Report](#).

Top CBQoS Set Packets

Displays the CB QoS Set statistics for the interface/class maps in a reporting group or managed object with the highest number of packets marked by the CBQoS Set feature over the selected period. The view provides focus to those interfaces with the highest number of Set packets.

- Context: This view requires a selected group or router configured for CB QoS Set to be displayed.
- Data: The metric used to render this view is qosset, which corresponds to the QoS SET Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - DSCP: Number of packets with the DSCP field marked by the Set feature
 - Precedence: Number of packets with the Precedence field marked by the Set feature
 - QoS Group: Number of packets with the Qos Group field marked by the Set feature
 - FR DE: Number of packets with the Frame Relay DE Bit marked by the Set feature
 - ATM CLP: Number of packets with the ATM CLP Bit is marked by the Set feature
 - L2 CoS: Number of packets with the Layer 2 Cos field marked by the Set feature
 - MPLS Imposition: Number of packets with the MPLS Experimental Imposition field marked by the Set feature
 - Discard Class: Number of packets with the Discard Class field marked by the Set feature
 - MPLS Top Most: Number of packets with the MPLS Experimental TopMost field marked by the Set feature
 - SRP Priority: Number of packets with the SRP Priority field marked by the Set feature
 - FR FECN/BECN: Number of packets with the Frame Relay FECN BECN field marked by the Set feature
 - DSCP Tunnel: Number of packets with the DSCP Tunnel field marked by the Set feature
 - Precedence Tunnel: Number of packets with the Precedence Tunnel field marked by the Set feature

The view data is rendered and ordered according to which interfaces in a group or router have the highest number of DSCP marked packets for the selected period.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

Top CBQoS Traffic Shaping

Displays the CB QoS Traffic Shaping statistics for the interface/class maps in a reporting group or managed object with the highest Traffic Shaping delayed volume during the selected period. The view provides focus to those interfaces experiencing the highest level of Traffic Shaping drop and delay, and may be more prone to problems or failure.

Name	Delayed Volume ▾	Delayed Packets	Dropped Volume	Dropped Packets	Queue Size
Business Critical on London - Serial 2/0.0 - T1 Link, In Direction	6.25 GB	837.23 K	10.40 GB	4.12 M	3.78 M
Business Critical on Serial 0/1, In Direction	3.21 GB	1.72 M	8.42 GB	3.16 M	8.66 M
Mission Critical on London - Serial 2/0.0 - T1 Link, In Direction	2.33 GB	676.10 K	6.69 GB	3.66 M	1.46 M
Business Critical on Boston - Serial 2/0.0 - T1 Link, In Direction	2.08 GB	1.16 M	4.33 GB	2.16 M	1.87 M
Mission Critical on Boston - Serial 2/0.0 - T1 Link, In Direction	1.65 GB	1.16 M	11.21 GB	3.53 M	1.90 M
Mission Critical on Serial 0/1, In Direction	979.77 MB	494.20 K	4.01 GB	2.29 M	3.67 M
Business Critical on Houston - Serial 2/0.1 - T1 Link, In Direction	449.20 MB	181.42 K	9.13 GB	2.09 M	276.17 K
Business Critical on PeopleSoft Data Center - Downlink, In Direction	203.90 MB	129.29 K	8.08 GB	2.99 M	343.54 K
Mission Critical on Houston - Serial 2/0.1 - T1 Link, In Direction	181.28 MB	79.72 K	7.87 GB	3.14 M	175.06 K
Mission Critical on Austin-1 - VLAN4 - Gigabit Ethernet, In Direction	28.27 MB	2.98 K	135.74 GB	29.61 M	396

Search: Show Top: 10 ▾

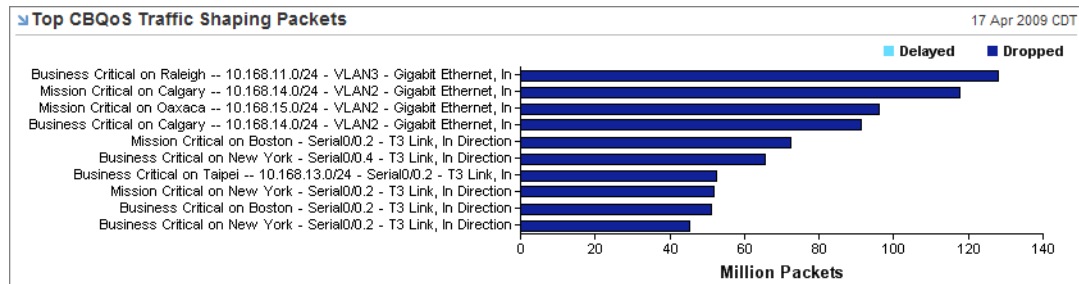
- Context: This view requires a selected group or router configured for CB QoS traffic shaping to be displayed.
- Data: The metric used to render this view is qosts, which corresponds to the QoS Traffic Shaping Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Delayed Volume: Number of bytes that were delayed
 - Delayed Packets: Number of packets that were delayed
 - Dropped Volume: Number of bytes that were dropped during shaping
 - Dropped Packets: Number of packets that were dropped during shaping
 - Queue Size: Number of packets in the traffic-shaping queue depth

The view data is rendered and ordered according to which interfaces in a group or router have the highest level of Traffic Shaping delayed volume.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the CBQoS Dashboard report and the Router Interfaces report.

Top CBQoS Traffic Shaping Packets

Displays the total of dropped and delayed CBQoS Traffic Shaping packets for the interface/class maps in a reporting group or managed object with the highest number of delayed and dropped packets during the selected period. The view provides focus to those interfaces with the worst (highest) values, which may be more prone to problems or failure.



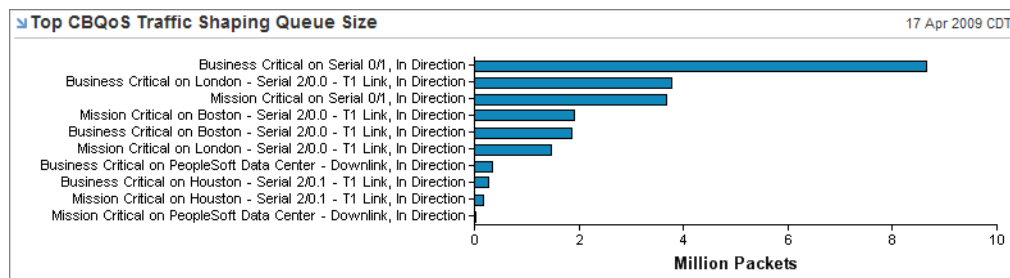
- Context: This view requires a selected group or router configured for CB QoS traffic shaping to be rendered.
- Data: The metric used to render this view is qsts, which corresponds to the QoS Traffic Shaping Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Delayed: Number of packets that were delayed
 - Dropped: Number of packets that were dropped during shaping

The view data is rendered and ordered according to which interfaces in a group or router have the highest total number of Traffic Shaping dropped and delayed packets.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the CBQoS Dashboard report.

Top CBQoS Traffic Shaping Queue Size

Displays the total CBQoS Traffic Shaping queue size for the interface/class maps in a reporting group or managed object with the highest queue sizes during the selected period. The view provides focus to those interfaces with the worst (highest) values, which may be more prone to problems or failure.

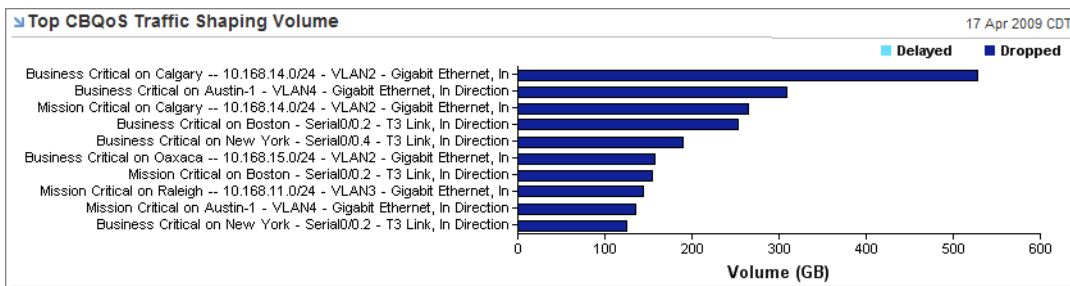


- Context: This view requires a selected group or router configured for CB QoS traffic shaping to be displayed.

- Data: The metric used to render this view is qosts, which corresponds to the QoS Traffic Shaping Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the CBQoS Dashboard report.

Top CBQoS Traffic Shaping Volume

Displays the volume (bytes) for CBQoS Traffic Shaping dropped and delayed packets for the interface/class maps in a reporting group or managed object with the highest volume of delayed and dropped packets during the selected period. The view provides focus to those interfaces with the worst (highest) values, which may be more prone to problems or failure.



- Context: This view requires a selected group or router configured for CB QoS traffic shaping to be displayed.
- Data: The metric used to render this view is qosts, which corresponds to the QoS Traffic Shaping Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Delayed: Number of bytes that were delayed
 - Dropped: Number of bytes that were dropped during shaping

The view data is rendered and ordered according to which interfaces in a group or router have the highest total volume of Traffic Shaping dropped and delayed packets.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the CBQoS Dashboard report.

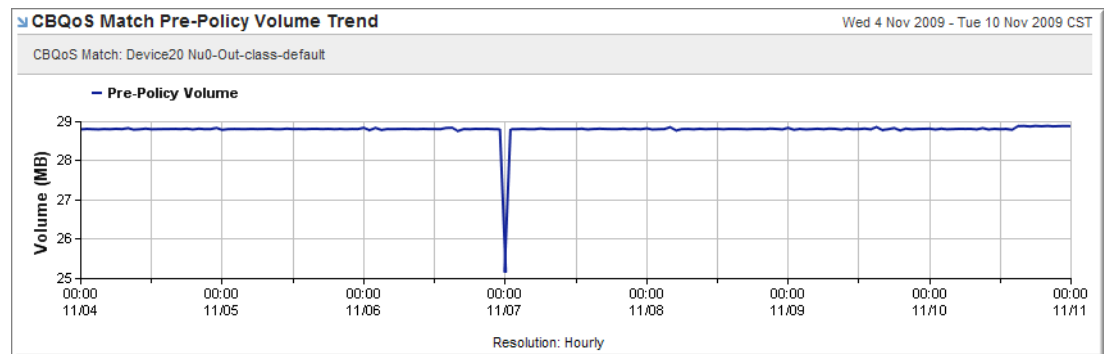
CBQoS MATCH VIEWS

The following topics describe the views related to CBQoS Match that you can add to your report pages. This information includes the view styles possible for each view, the metric used to render the view, and the standard report pages that include the view.

Note: Metrics for many of the CBQoS views cannot be edited in the Custom View Wizard.

CBQoS Match Pre-Policy Packets Trend

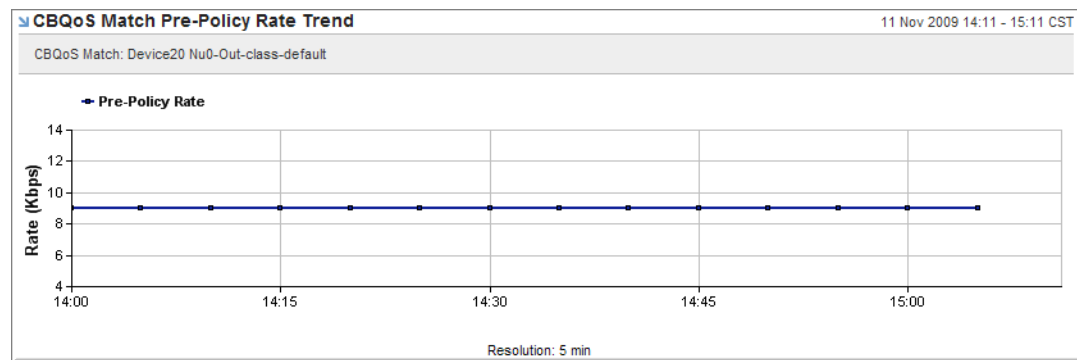
Displays the volume of pre-policy packets for a CB QoS match statement over the selected period. The view shows the packet volume changes over time for the match statement.



- Context: This view requires a selected CB QoS class map configured for CB QoS Match policies to be displayed.
- Data: The metric used to render this view is qosmatch, which corresponds to the QoS Match Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Match Detail Report](#) report.

CBQoS Match Pre-Policy Rate Trend

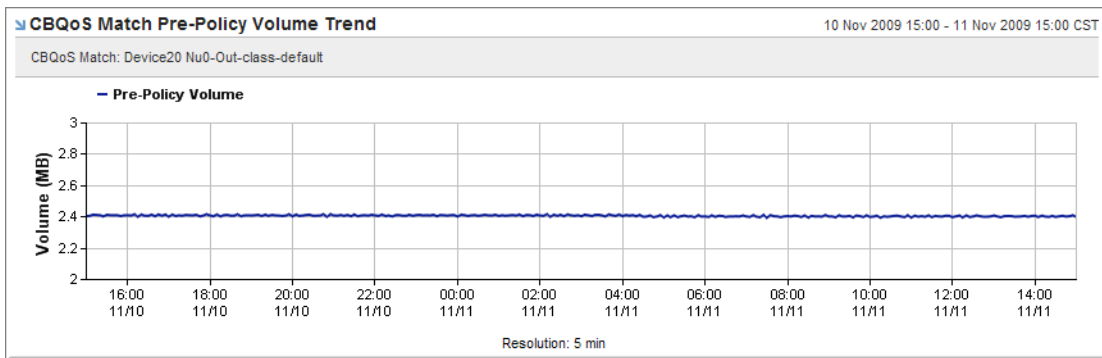
Displays the bit rate of pre-policy packets for a CB QoS match statement over the selected period. The view shows the bit rate changes over time for the match statement.



- Context: This view requires a selected CB QoS class map configured for CB QoS Match policies to be displayed.
- Data: The metric used to render this view is qosmatch, which corresponds to the QoS Match Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Match Detail Report](#).

CBQoS Match Pre-Policy Volume Trend

Displays the volume of pre-policy packets for a CB QoS match statement over the selected period. The view shows the changes in volume for the match statement over time.



- Context: This view requires a selected CB QoS class map configured for CB QoS Match policies to be displayed.
- Data: The metric used to render this view is qosmatch, which corresponds to the QoS Match Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Match Detail Report](#).

Top CBQoS Match Statements

Displays the top CB QoS match statements for a class map during the selected period. The view provides focus to those match statements with the highest values.

Top CBQoS Match Statements			
CBQoS Class Map: Device20 Et1/0-In-Custom class-default			
Name	Pre-Volume	Pre-Pkts	Pre-Rate
Match Et1/0-In-class-default	7.20 MB	72.00 K	59.00 Kbps
Match Et1/0-In-class-default	3.60 MB	54.01 K	11.00 Kbps

- Context: This view requires a selected CB QoS class map configured for CB QoS Match policies to be displayed.
- Data: The metric used to render this view is qosmatch, which corresponds to the QoS Match Statistics dataset in NetVoyant. The view includes data for the following expressions:

- Pre-Volume: Number of inbound bytes before executing the Match statement policy.
- Pre-Pkts: Number of inbound packets before executing the Match statement policy.
- Pre-Rate: Bit rate of the traffic before executing the Match statement policy.

The view data is rendered and ordered according to which match statements in a class map have the highest total volume of traffic.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Class Map Capabilities Report](#) report.

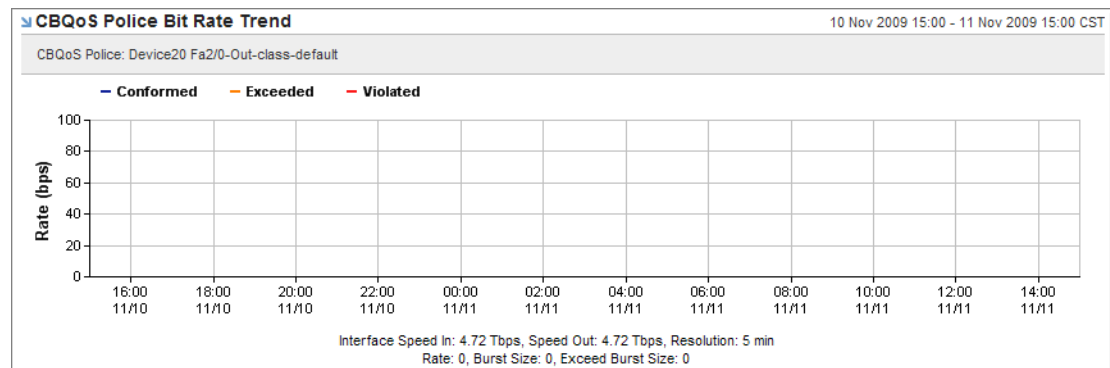
CBQoS POLICE VIEWS

The following topics describe the views related to CBQoS Police that you can add to your report pages. This information includes the view styles possible for each view, the metric used to render the view, and the standard report pages that include the view.

Note: Metrics for some of the CBQoS views cannot be edited in the Custom View Wizard.

CBQoS Police Bit Rate Trend

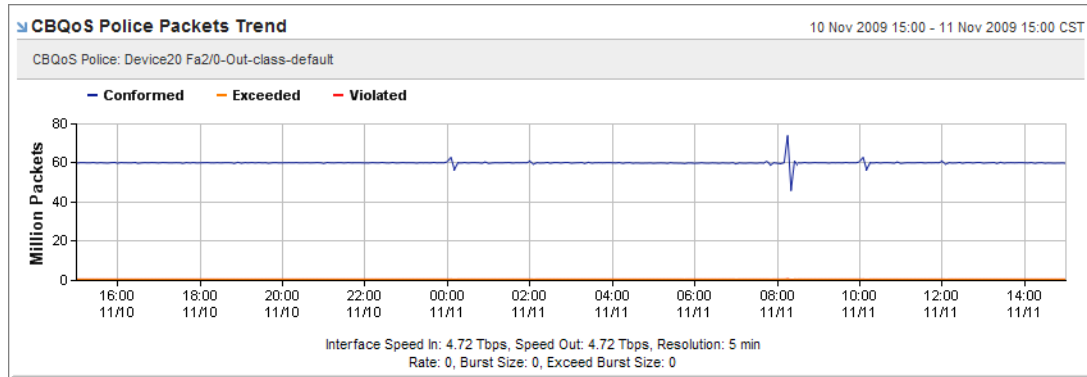
Displays the bit rate of pre-policy packets for a CB QoS police action policy over the selected period.



- Context: This view requires a selected CB QoS Policing policy for a class map to be displayed.
- Data: The metric used to render this view is qospolice, which corresponds to the QoS Police Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Conformed: Bit rate for packets treated as conforming by the policing policy
 - Exceeded: Bit rate for packets treated as exceeding by the policing policy
 - Violated: Bit rate for packets treated as violated by the policing policy
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included on the standard NetVoyant reports, but you can add it to a report page.

CBQoS Police Packets Trend

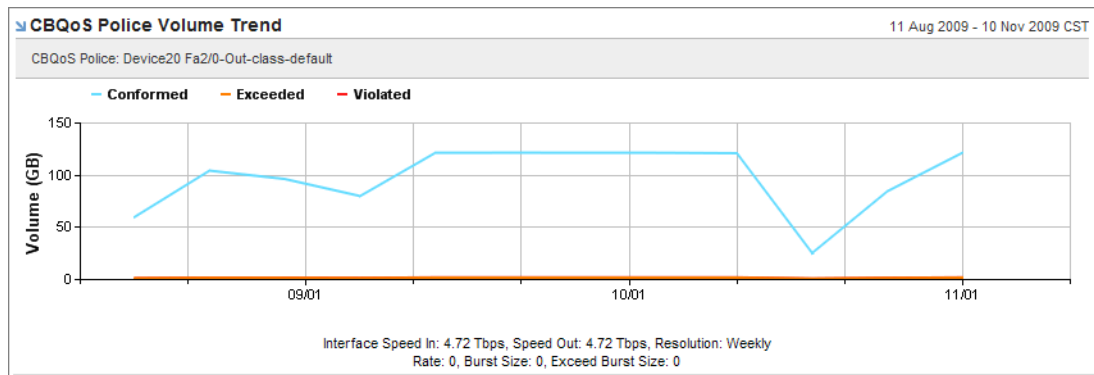
Displays the number of pre-policy packets for a CB QoS police action policy over the selected period.



- Context: This view requires a selected CB QoS Policing policy for a class map to be displayed.
- Data: The metric used to render this view is qospolice, which corresponds to the QoS Police Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Conformed; Number of packets treated as conforming by the policing policy.
 - Exceeded; Number of packets treated as exceeding by the policing policy.
 - Violated; Number of packets treated as violated by the policing policy.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Police Detail Report](#).

CBQoS Police Volume Trend

Displays the volume of pre-policy packets for a CB QoS police action policy over the selected period.



- Context: This view requires a selected CB QoS Policing policy for a class map to be displayed.
- Data: The metric used to render this view is qospolice, which corresponds to the QoS Police Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Conformed: Number of bytes for packets treated as conforming by the policing policy.
 - Exceeded: Number of bytes for packets treated as exceeding by the policing policy.
 - Violated: Number of bytes for packets treated as violated by the policing policy.

- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is included in the Class-Based QoS Police Detail report.

Top CBQoS Police Action

Displays the top CB QoS police action policies for the class map during a period. Compares the number and volume of packets, by type, marked by the CBQoS Policing feature for the class map during the selected period.

Name	Conformed Volume	Conformed Packets	Exceeded Volume	Exceeded Packets	Violated Volume	Violated Packets
Mission Critical on Boston - Serial 2/0.0 - T1 Link, In Direction	7.19 GB	8.86 M	2.50 GB	0	1.20 GB	1.31 M

- **Context:** This view requires a class map configured for CB QoS Policing to be displayed.
- **Data:** The metric used to render this view is qospolice, which corresponds to the QoS Police Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - **Conformed Volume:** Number of bytes treated as conforming by the policing policy.
 - **Conformed Packets:** Number of packets treated as conforming by the policing policy.
 - **Exceeded Volume:** Number of bytes treated as exceeding by the policing policy.
 - **Exceeded Packets:** Number of packets treated as exceeding by the policing policy.
 - **Violated Volume:** Number of bytes treated as violated by the policing policy.
 - **Violated Packets:** Number of packets treated as violated by the policing policy.

The view data is rendered and ordered according to which interfaces in a group or router have the highest volume of Policing packets (Conform, Exceed, and Violate) over the selected period.

- **Styles:** This view can be displayed as a bar chart, stacked bar chart, or table.
- **Standard NetVoyant reports:** This view is included in the Class-Based QoS Class Map Capabilities report.

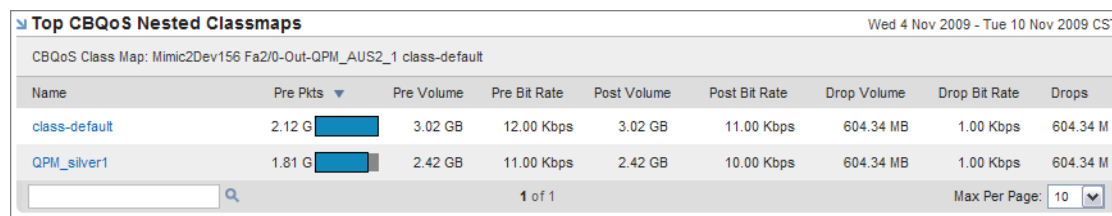
CBQoS POLICY VIEW

The following sections describe the views related to CBQoS Policy that you can add to your report pages. This information includes the view styles possible for each view, the metric used to render the view, and the standard report pages that include the view.

Note: Metrics for many of the CBQoS views cannot be edited in the Custom View Wizard.

Top CBQoS Nested Classmaps

Displays the top CB QoS nested policies for the class map during a period and compares the packet number, volume, and drops.



The screenshot shows the 'Top CBQoS Nested Classmaps' view for the period 'Wed 4 Nov 2009 - Tue 10 Nov 2009 CST'. The class map is 'Mimic2Dev156 Fa2/0-Out-QPM_AUS2_1 class-default'. The table displays metrics for two class maps: 'class-default' and 'QPM_silver1'. Each row includes a bar chart for 'Pre Pkts'.

Name	Pre Pkts	Pre Volume	Pre Bit Rate	Post Volume	Post Bit Rate	Drop Volume	Drop Bit Rate	Drops
class-default	2.12 G	3.02 GB	12.00 Kbps	3.02 GB	11.00 Kbps	604.34 MB	1.00 Kbps	604.34 M
QPM_silver1	1.81 G	2.42 GB	11.00 Kbps	2.42 GB	10.00 Kbps	604.34 MB	1.00 Kbps	604.34 M

- Context: This view requires a class map configured for CB QoS Policing to be displayed.
- Data: The metric used to render this view is qosclass, which corresponds to the QoS Class Map Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Pre Pkts: Number of inbound packets before executing QoS policies
 - Pre Volume: Volume (bytes) of inbound packets before executing QoS policies
 - Pre Bit Rate: Bit rate of the traffic before executing QoS policies
 - Post Pkts: Number of inbound packets after executing QoS policies
 - Post Volume: Volume (bytes) of inbound packets after executing QoS policies
 - Post Bit Rate: Bit rate of the traffic after executing QoS policies
 - Drop Volume: Number of dropped bytes per class as the result of all features that can produce drops, such as police, random detect
 - Drop Bit Rate: Bit rate of the drops per class as the result of all features that can produce drops, such as police, random detect
 - Drops: Number of dropped packets per class as the result of all features that can produce drops, such as police, random detect

The view data is rendered and ordered according to which class maps/policies have the highest number of pre-policy packets during the selected period.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Class Map Capabilities Report](#).

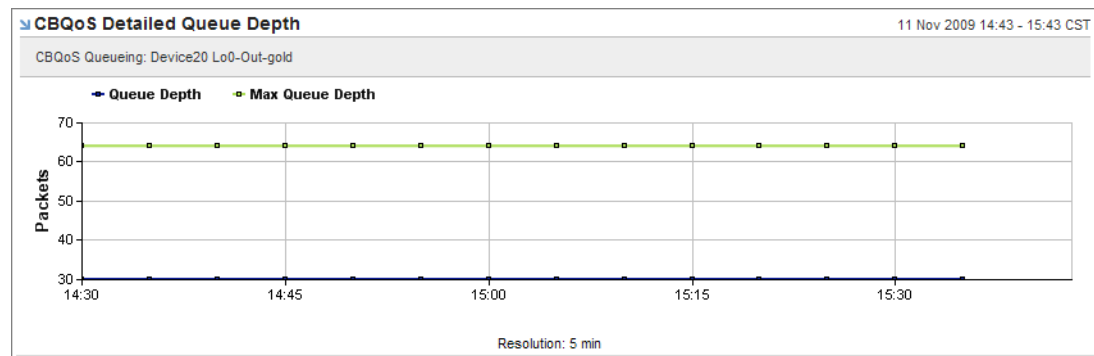
CBQoS QUEUEING VIEWS

The following topics describe the views related to CBQoS Queueing that you can add to your report pages. This information includes the view styles possible for each view, the metric used to render the view, and the standard report pages that include the view.

Note: Metrics for many of the CBQoS views cannot be edited in the Custom View Wizard.

CBQoS Detailed Queue Depth

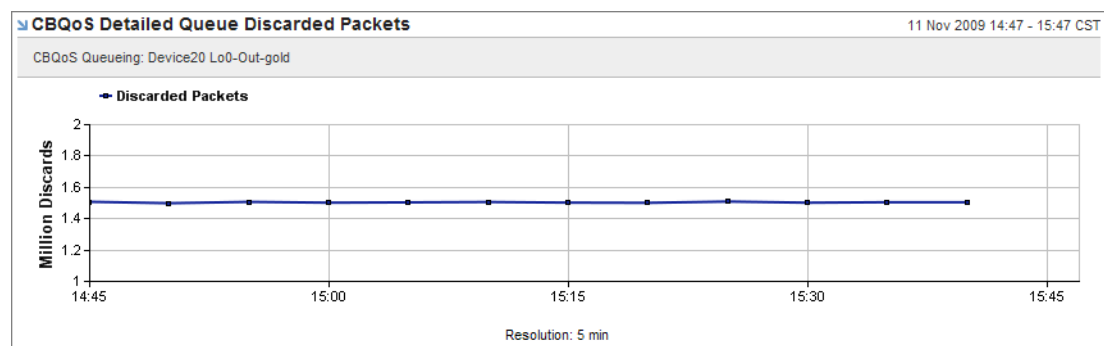
Displays the queue depth for a CB QoS queueing policy over the selected period. The view shows the queue depth changes over time for the Queueing policy.



- Context: This view requires a selected CB QoS Queueing policy to be displayed.
- Data: The metric used to render this view is qosqueue, which corresponds to the QoS Queueing Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avg Queue Depth: Current average depth of the queue
 - Max Queue Depth: Maximum depth of the queue
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Queueing Detail Report](#).

CBQoS Detailed Queue Discarded Packets

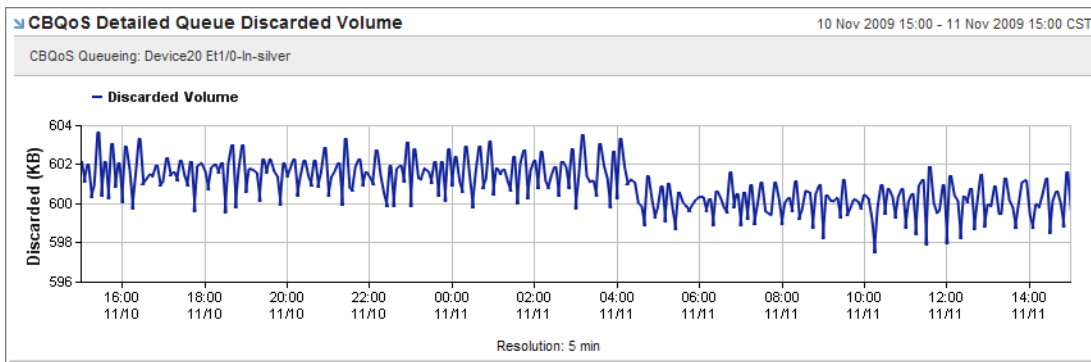
Displays the number discarded packets for a CB QoS Queueing policy over the selected period. The view shows the discard number changes over time for the Queueing policy.



- Context: This view requires a selected CB QoS Queueing policy to be displayed.
- Data: The metric used to render this view is qosqueue, which corresponds to the QoS Queueing Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Queueing Detail Report](#).

CBQoS Detailed Queue Discarded Volume

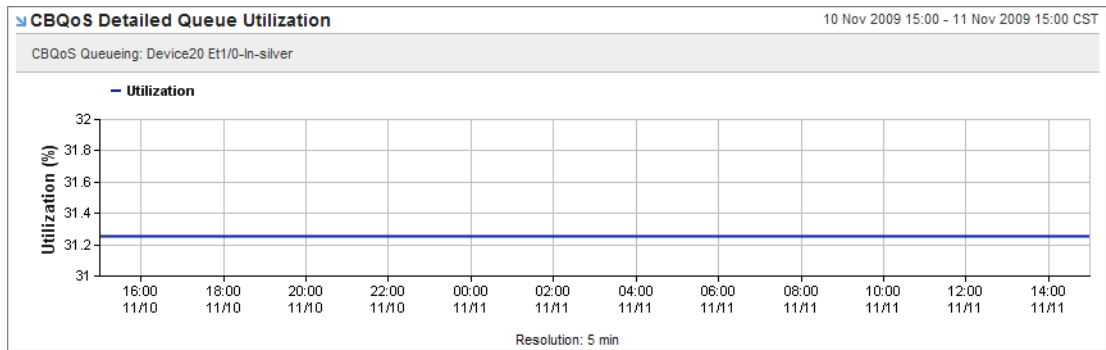
Displays the discard volume (MB) for a CB QoS queueing policy over the selected period. The view shows the discard volume changes over time for the CBQoS Queueing policy.



- Context: This view requires a selected CB QoS Queueing policy to be displayed.
- Data: The metric used to render this view is qosqueue, which corresponds to the QoS Queueing Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Queueing Detail Report](#).

CBQoS Detailed Queue Utilization

Displays the usage for a CB QoS Queueing policy over the selected period. When the maximum queue depth value is greater than 0, the value is a percentage equal to the current queue depth divided by the maximum queue depth. The view shows the discard volume changes over time for the Queueing policy.



- Context: This view requires a selected CB QoS Queueing policy to be displayed.
- Data: The metric used to render this view is qosqueue, which corresponds to the QoS Queueing Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Queueing Detail Report](#).

Top CBQoS Queueing Statistics

Displays the top CB QoS queueing statistics for the class map during the selected period. This view compares the usage of CBQoS Queueing, along with the queue depth and number and volume of discarded packets.

Top CBQoS Queueing Statistics				
7 Sep 2009 - 6 Dec 2009 CST				
CBQoS Class Map: Device20 Et1/0-In-Custom silver				
Name	Utilization	Depth	Discard Pkts	Discard Volume
Queueing Et1/0-In-silver	31.25% <div></div>	20	10.39 G	10.39 GB
1 of 1				
Max Per Page: 10				

- Context: This view requires a selected CB QoS class map configured for Queueing policies to be displayed.
- Data: The metric used to render this view is qosqueue, which corresponds to the QoS Queueing Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization: Where the maximum queue depth value is greater than 0, a percentage value equal to the current queue depth divided by the maximum queue depth.
 - Depth: Number of packets in the queue.
 - Discard Pkts: Number of packets, associated with this class, that were dropped by queueing.
 - Discard Volume: Number of bytes, associated with this class, that were dropped by queueing.

The view data is rendered and ordered according to which policies in the selected class map have the highest usage of the CB QoS Queueing policy over the selected period.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Class Map Capabilities Report](#).

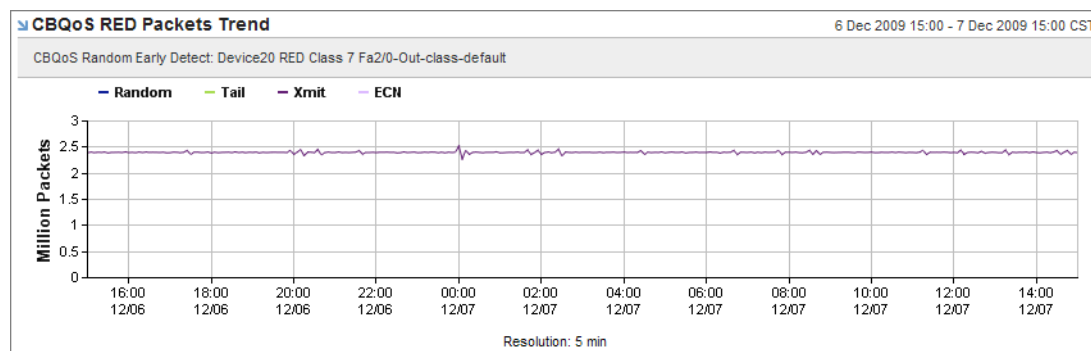
CBQoS RED VIEWS

The following topics describe the views related to CBQoS RED that you can add to your report pages. This information includes the view styles possible for each view, the metric used to render the view, and the standard report pages that include the view.

Note: Metrics for many of the CBQoS views cannot be edited in the Custom View Wizard.

CBQoS RED Packets Trend

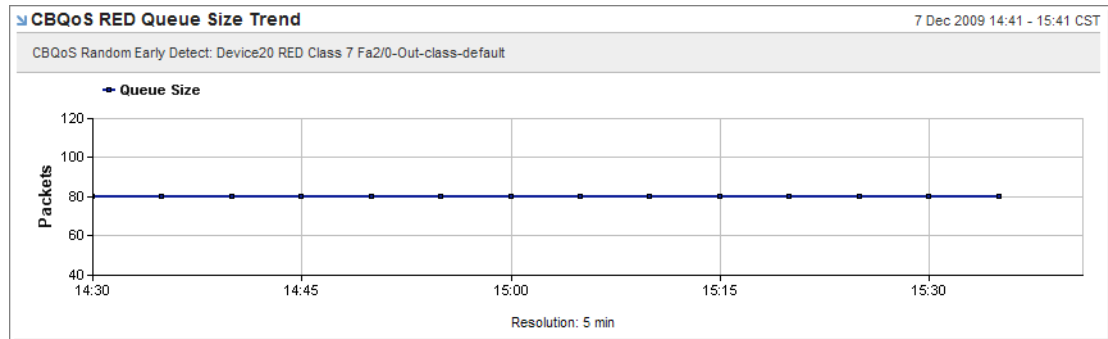
Displays the number of packets, by type, for the CB QoS RED policy over the selected period. The view shows the packet number changes over time for the RED policy.



- Context: This view requires a selected CB QoS RED policy to be displayed.
- Data: The metric used to render this view is qosred, which corresponds to the QoS Random Early Detect Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Random: Number of packets dropped when the number of packets in the associated queue was greater than the minimum threshold and less than the maximum threshold
 - Tail: Number of packets dropped when the number of packets in the associated queue was greater than the maximum threshold
 - Xmit: Number of packets transmitted
 - ECN: Number of packets marked as ecn when the number of packets in the associated queue was greater than the minimum threshold and less than the maximum threshold
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Random Early Detection Detail Report](#).

CBQoS RED Queue Size Trend

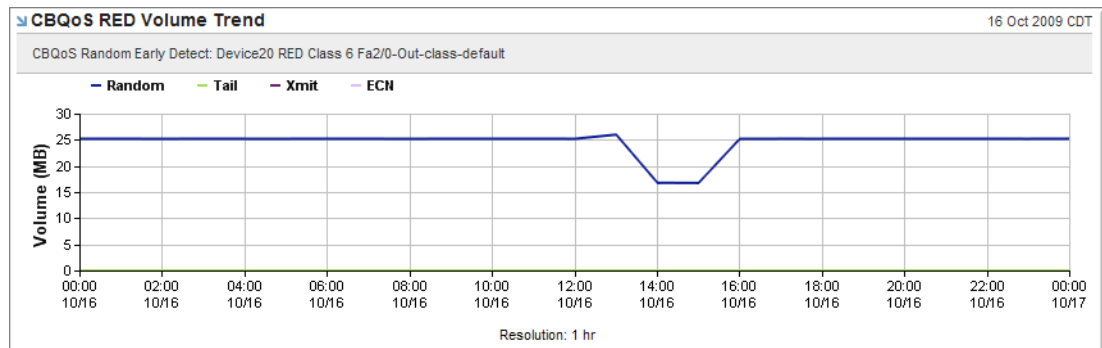
Displays the queue size for the CB QoS RED policy over the selected period. The view shows the queue size changes over time for the RED policy.



- Context: This view requires a selected CB QoS RED policy to be displayed.
- Data: The metric used to render this view is qosred, which corresponds to the QoS Random Early Detect Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Random Early Detection Detail Report](#).

CBQoS RED Volume Trend

Displays the volume of packets for the CB QoS RED policy over the selected period. The view shows the packet volume changes over time for the RED policy.



- Context: This view requires a selected CB QoS RED policy to be displayed.
- Data: The metric used to render this view is qosred, which corresponds to the QoS Random Early Detect Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Random: Number of bytes dropped when the number of packets in the associated queue was greater than the minimum threshold and less than the maximum threshold
 - Tail: Number of bytes dropped when the number of packets in the associated queue was greater than the maximum threshold
 - Xmit: Number of bytes transmitted
 - ECN: Number of bytes in packets marked as ecn when the number of packets in the associated queue was greater than the minimum threshold and less than the maximum threshold

- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Random Early Detection Detail Report](#).

Top CBQoS RED Volume

Displays the top CBQoS RED volumes for the class map or managed object during the selected period. This view compares the usage of CBQoS RED, along with the queue depth and number and volume of discarded packets.

Name	Random Drop	Tail Drop	Transmit	ECN	Queue size
RED Class 7 Fa2/0-Out-class-default	41.55 GB	0 Bytes	0 Bytes	0 Bytes	80
RED Class 6 Fa2/0-Out-class-default	36.36 GB	0 Bytes	0 Bytes	0 Bytes	70
RED Class 5 Fa2/0-Out-class-default	31.16 GB	0 Bytes	0 Bytes	0 Bytes	60
RED Class 4 Fa2/0-Out-class-default	25.97 GB	0 Bytes	0 Bytes	0 Bytes	50
RED Class 3 Fa2/0-Out-class-default	20.78 GB	0 Bytes	0 Bytes	0 Bytes	40
RED Class 2 Fa2/0-Out-class-default	15.58 GB	0 Bytes	0 Bytes	0 Bytes	30
RED Class 1 Fa2/0-Out-class-default	10.39 GB	0 Bytes	0 Bytes	0 Bytes	20
RED Class 0 Fa2/0-Out-class-default	5.19 GB	0 Bytes	0 Bytes	0 Bytes	10

- Context: This view requires a selected router or class map configured for CB QoS RED to be displayed.
- Data: The metric used to render this view is qosred, which corresponds to the QoS Random Early Detect Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Random Drop: Number of bytes dropped when the number of packets in the associated queue was greater than the minimum threshold and less than the maximum threshold
 - Tail Drop: Number of bytes dropped when the number of packets in the associated queue was greater than the maximum threshold
 - Transmit: Number of bytes transmitted
 - ECN: Number of bytes ecn marked when the number of packets in the associated queue was greater than the minimum threshold and less than the maximum threshold
 - Queue size: Average queue size computed and used by the WRED algorithm

The view data is rendered and ordered according to which items have the highest number of RED random drops.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Class Map Capabilities Report](#) and [Router Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Interfaces report.

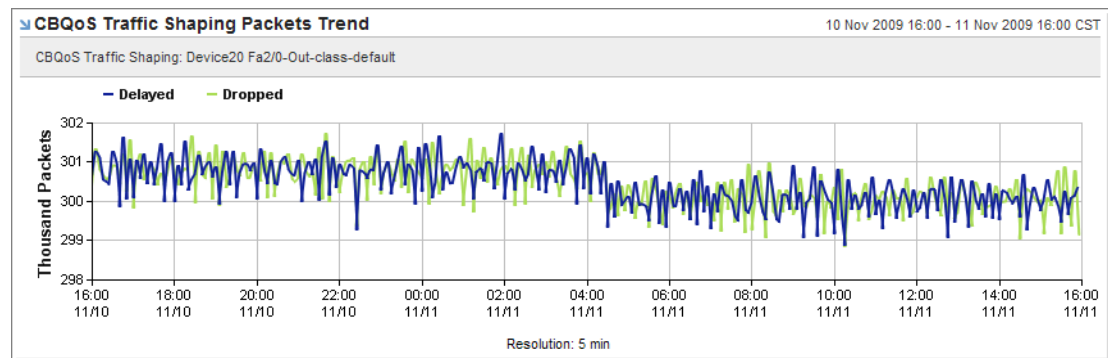
CBQoS Traffic Shaping Views

The following topics describe the views related to CBQoS Traffic Shaping that you can add to your report pages. This information includes the view styles possible for each view, the metric used to render the view, and the standard report pages that include the view.

Note: Metrics for many of the CBQoS views cannot be edited in the Custom View Wizard.

CBQoS Traffic Shaping Packets Trend

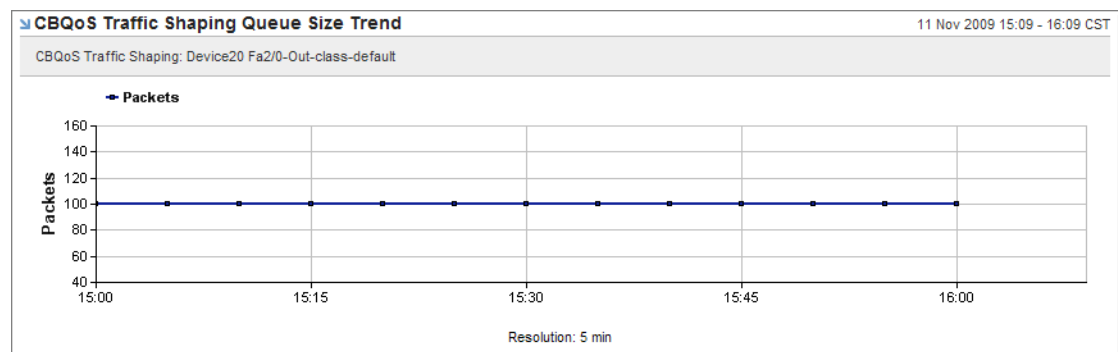
Displays the number of delayed and dropped packets for the CB QoS Traffic Shaping policy over the selected period. The view shows the packet number changes over time for the traffic shaping policy.



- Context: This view requires a selected CB QoS Traffic Shaping policy to be displayed.
- Data: The metric used to render this view is qosts, which corresponds to the QoS Traffic Shaping Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Delayed: Number of packets that were delayed during shaping
 - Dropped: Number of packets that were dropped during shaping
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Traffic Shaping Detail Report](#).

CBQoS Traffic Shaping Queue Size Trend

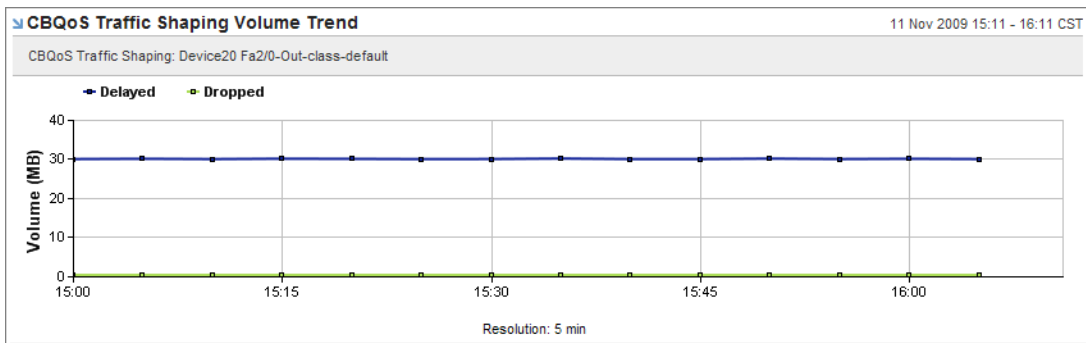
Displays the queue size for the CB QoS Traffic Shaping policy over the selected period. The view shows the changes in queue size over time for the traffic shaping policy.



- Context: This view requires a selected CB QoS Traffic Shaping policy to be displayed.
- Data: The metric used to render this view is qosts, which corresponds to the QoS Traffic Shaping Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Traffic Shaping Detail Report](#).

CBQoS Traffic Shaping Volume Trend

Displays the volume of packets, by type, for the CB QoS Traffic Shaping policy over the selected period. The view shows the changes in packet volume over time for the traffic shaping policy.



- Context: This view requires a selected CB QoS Traffic Shaping policy to be displayed.
- Data: The metric used to render this view is qosts, which corresponds to the QoS Traffic Shaping Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Delayed: Number of bytes for packets that were delayed during shaping
 - Dropped: Number of bytes for packets that were dropped during shaping
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Class-Based QoS Traffic Shaping Detail Report](#).

Top CBQoS Traffic Shaping

Displays the top CB QoS traffic shaping policies over the selected period. The view provides focus to those interfaces with the highest volume of Traffic Shaping drop and delay, and may be more prone to problems or failure.

Top CBQoS Traffic Shaping					
CBQoS Class Map: Device20 Fa2/0-Out-QPM_AUS2_1 class-default					
Name	Delayed Volume	Delayed Packets	Dropped Volume	Dropped Packets	Queue Size
TS Fa2/0-Out-class-default	519.38 GB	5.19 G	5.19 GB	5.19 G	100

- Context: This view requires a selected class map configured for CB QoS traffic shaping to be displayed.

- **Data:** The metric used to render this view is qosts, which corresponds to the QoS Traffic Shaping Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Delayed Volume: Number of bytes that were delayed
 - Delayed Packets: Number of packets that were delayed
 - Dropped Volume: Number of bytes that were dropped during shaping
 - Dropped Packets: Number of packets that were dropped during shaping
 - Queue Size: Number of packets in the traffic-shaping queue

The view data is rendered and ordered according to which items have the highest Traffic Shaping delayed volume.
- **Styles:** This view can be displayed as a bar chart, stacked bar chart, or table.
- **Standard NetVoyant reports:** This view is included in the [Class-Based QoS Class Map Capabilities Report](#).

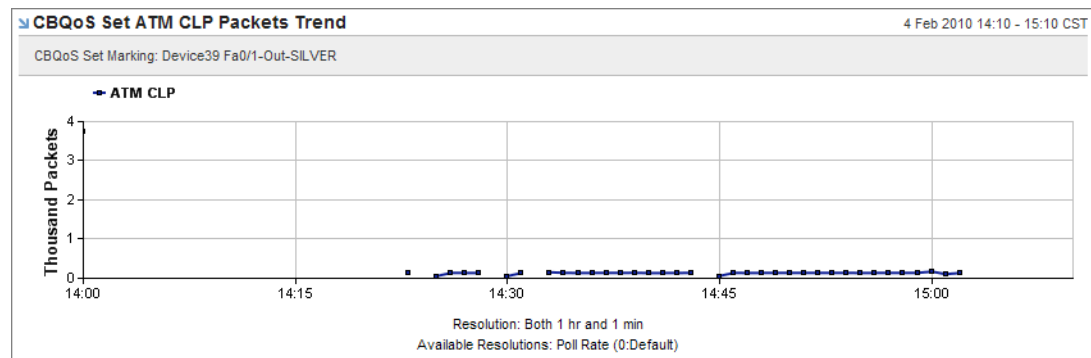
CBQoS SET VIEWS

The following topics describe the views related to CBQoS Set that you can add to your report pages. This information includes the view styles possible for each view, the metric used to render the view, and the standard report pages that include the view.

Note: Metrics for many of the CBQoS views cannot be edited in the Custom View Wizard.

CBQoS Set ATM CLP Packets Trend

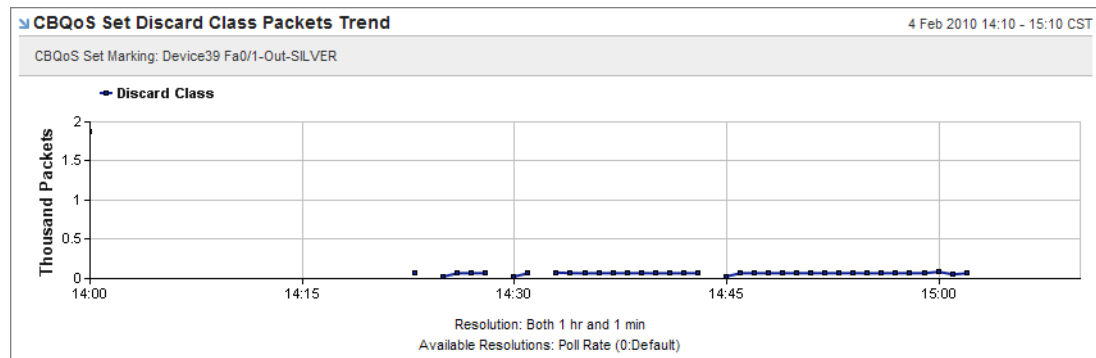
Displays a the number of packets marked as ATM CLP by the CBQoS Set policy over the selected period. The view shows the changes in packet number over time for the Set Marking policy.



- **Context:** This view requires a selected CB QoS Set Packet Marking policy to be displayed.
- **Data:** The metric used to render this view is qosset, which corresponds to the QoS Set Statistics dataset in NetVoyant.
- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

CBQoS Set Discard Class Packets Trend

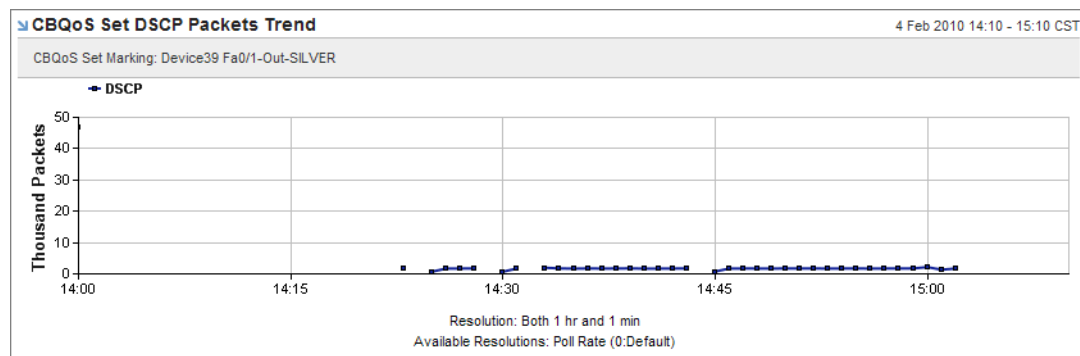
Displays the number of packets whose Discard Class field is marked by the CBQoS Set policy over the selected period. The view shows the changes in discard class numbers over time for the Set Marking policy.



- Context: This view requires a selected CB QoS Set Packet Marking policy to be displayed.
- Data: The metric used to render this view is qosset, which corresponds to the QoS Set Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

CBQoS Set DSCP Packets Trend

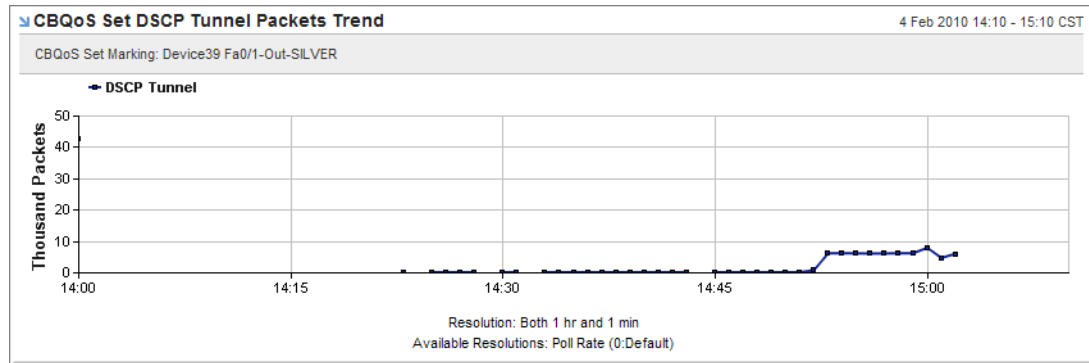
Displays the number of packets whose DSCP field is marked by the CBQoS Set policy over the selected period. The view shows the changes in the DSCP numbers over time for the Set Marking policy.



- Context: This view requires a selected CB QoS Set Packet Marking policy to be displayed.
- Data: The metric used to render this view is qosset, which corresponds to the QoS Set Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

CBQoS Set DSCP Tunnel Packets Trend

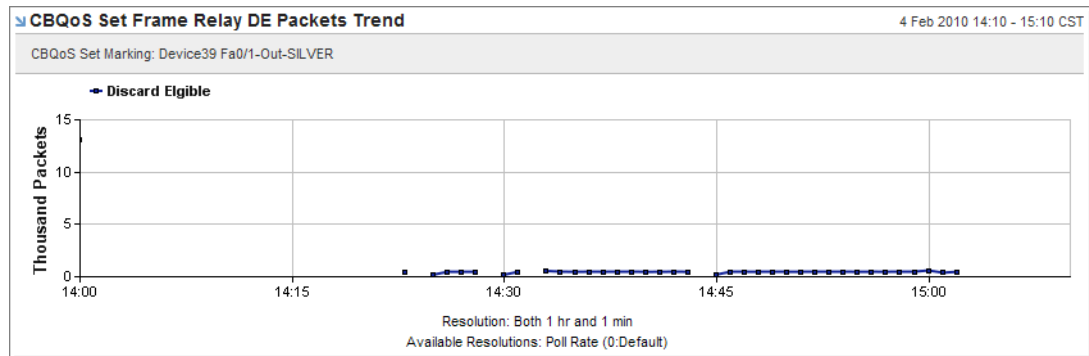
Displays the number of packets whose DSCP Tunnel field is marked by the CBQoS Set policy over the selected period. The view shows the changes in the DSCP Tunnel numbers over time for the Set Marking policy.



- Context: This view requires a selected CB QoS Set Packet Marking policy to be displayed.
- Data: The metric used to render this view is qosset, which corresponds to the QoS Set Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

CBQoS Set Frame Relay DE Packets Trend

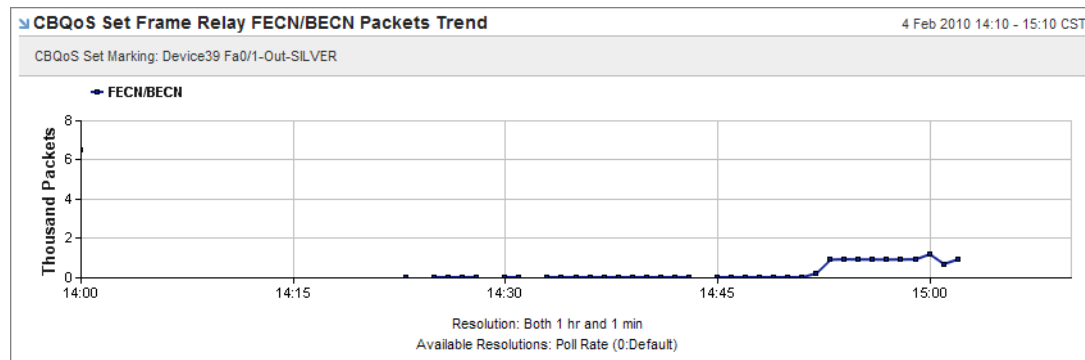
Displays the number of packets whose Frame Relay DE bit is marked by the CBQoS Set policy over the selected period. The view shows the changes in the Frame Relay DE numbers over time for the Set Marking policy.



- Context: This view requires a selected CB QoS Set Packet Marking policy to be displayed.
- Data: The metric used to render this view is qosset, which corresponds to the QoS Set Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

CBQoS Set Frame Relay FECN/BECN Packets Trend

Displays the number of packets whose Frame Relay FECN/BECN bit is marked by the CBQoS Set policy over the selected period. The view shows the changes in the Frame Relay FECN/BECN numbers over time for the Set Marking policy.



- Context: This view requires a selected CB QoS Set Packet Marking policy to be displayed.
- Data: The metric used to render this view is qosset, which corresponds to the QoS Set Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

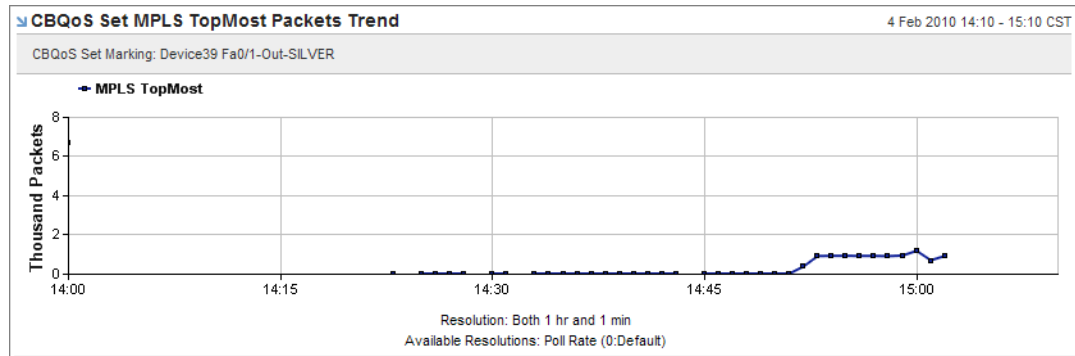
CBQoS Set MPLS Implosion Packets Trend

Displays the number of packets whose MPLS Experimental Implosion field is marked by the CBQoS Set policy over the selected period. The view shows the changes in the MPLS Experimental Implosion numbers over time for the Set Marking policy.

- Context: This view requires a selected CB QoS Set Packet Marking policy to be displayed.
- Data: The metric used to render this view is qosset, which corresponds to the QoS Set Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

CBQoS Set MPLS TopMost Packets Trend

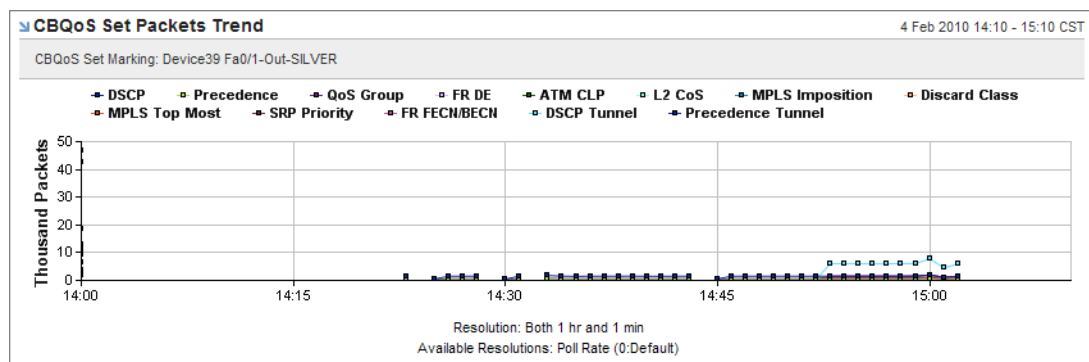
Displays the number of packets whose MPLS Experimental TopMost field is marked by the CBQoS Set policy over the selected period. The view shows the changes in the MPLS Experimental TopMost numbers over time for the Set Marking policy.



- Context: This view requires a selected CB QoS Set Packet Marking policy to be displayed.
- Data: The metric used to render this view is qosset, which corresponds to the QoS Set Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

CBQoS Set Packets Trend

Displays the number of packets, by type, marked by the CBQoS Set policy over the selected period. The view shows the changes in packet numbers over time for the Set Marking policy.

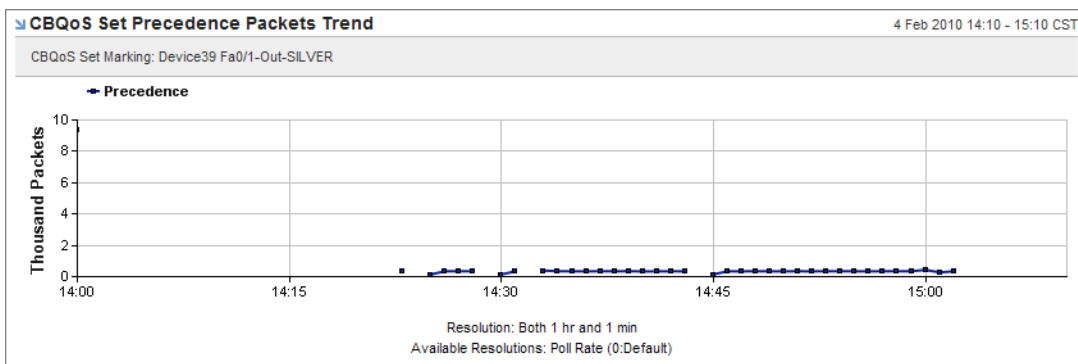


- Context: This view requires a selected CB QoS Set Packet Marking policy to be displayed.
- Data: The metric used to render this view is qosset, which corresponds to the QoS Set Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - DSCP: Number of packets with the DSCP field marked by the Set Marking policy
 - Precedence: Number of packets with the Precedence field marked by the Set Marking policy
 - QoS Group: Number of packets with the QoS Group field marked by the Set Marking policy
 - FR DE: Number of packets with the Frame Relay DE Bit marked by the Set Marking policy

- ATM CLP: Number of packets with the ATM CLP Bit marked by the Set Marking policy
- L2 CoS: Number of packets with the Layer 2 CoS field marked by the Set Marking policy
- MPLS Imposition: Number of packets with the MPLS Experimental Imposition field marked by the Set Marking policy
- Discard Class: Number of packets with the Discard Class field marked by the Set Marking policy
- MPLS Top Most: Number of packets with the MPLS Experimental TopMost field marked by the Set Marking policy
- SRP Priority: Number of packets with the SRP Priority field marked by the Set Marking policy
- FR FECN/BECN: Number of packets with the Frame Relay FECN BECN field marked by the Set Marking policy
- DSCP Tunnel: Number of packets with the DSCP Tunnel field marked by the Set Marking policy
- Precedence Tunnel: Number of packets with the Precedence Tunnel field marked by the Set Marking policy
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

CBQoS Set Precedence Packets Trend

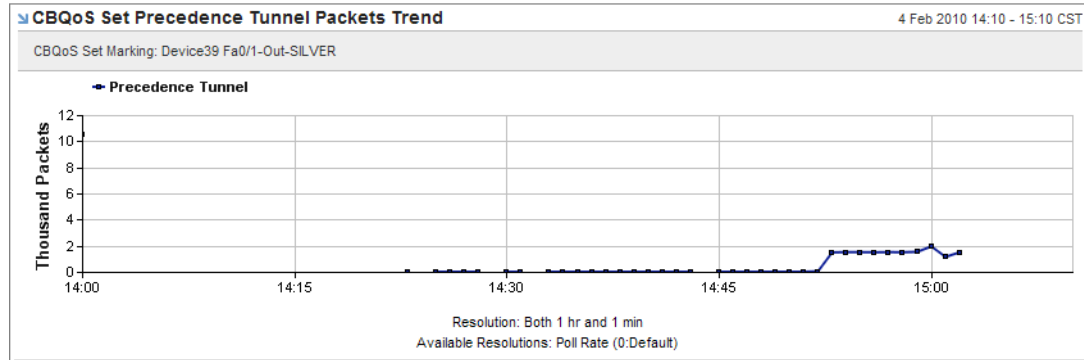
Displays the number of packets whose Precedence field is marked by the CBQoS Set policy over the selected period. The view shows the changes in Precedence numbers over time for the Set Marking policy.



- Context: This view requires a selected CB QoS Set Packet Marking policy to be displayed.
- Data: The metric used to render this view is qosset, which corresponds to the QoS Set Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

CBQoS Set Precedence Tunnel Packets Trend

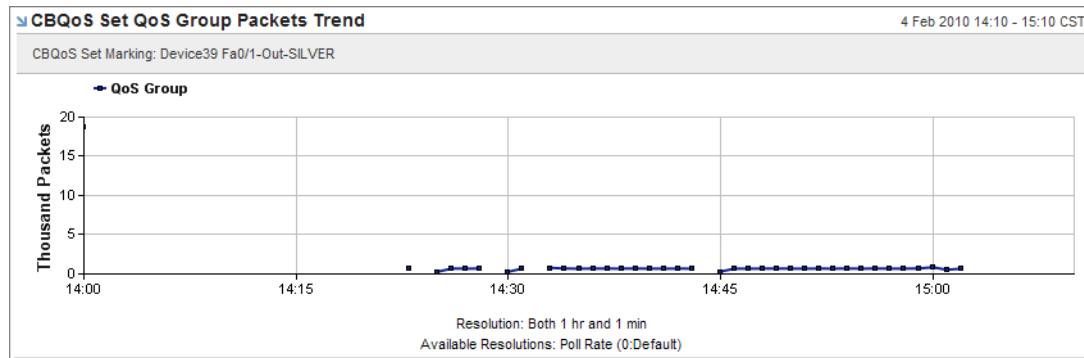
Displays the number of packets whose Precedence Tunnel field is marked by the CBQoS Set policy over the selected period. The view shows the changes in the Precedence Tunnel numbers over time for the Set Marking policy.



- Context: This view requires a selected CB QoS Set Packet Marking policy to be displayed.
- Data: The metric used to render this view is qosset, which corresponds to the QoS Set Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

CBQoS Set QoS Group Packets Trend

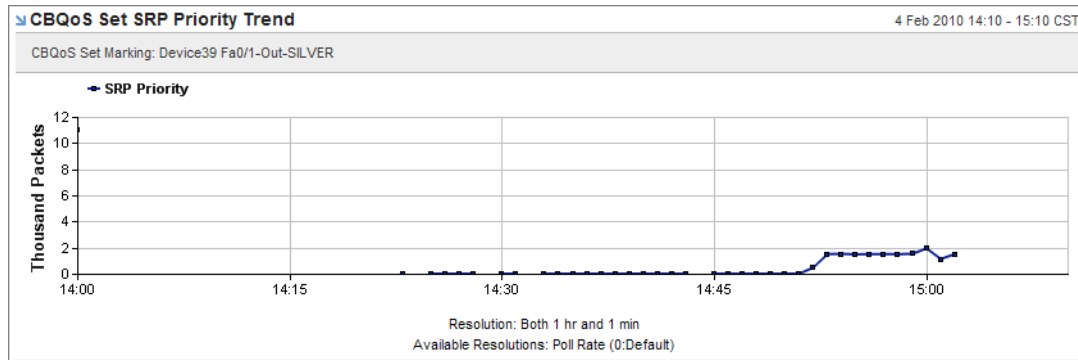
Displays the number of packets whose QoS Group field is marked by the CBQoS Set policy over the selected period. The view shows the changes in the QoS Group numbers over time for the Set Marking policy.



- Context: This view requires a selected CB QoS Set Packet Marking policy to be displayed.
- Data: The metric used to render this view is qosset, which corresponds to the QoS Set Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

CBQoS Set SRP Priority Packets Trend

Displays the number of packets whose SRP Priority field is marked by the CBQoS Set policy over the selected period. The view shows the changes in the SRP Priority numbers over time for the Set Marking policy.



- Context: This view requires a selected CB QoS Set Packet Marking policy to be displayed.
- Data: The metric used to render this view is qosset, which corresponds to the QoS Set Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

DEVICE VIEWS

The following topics describe the views related to devices that you can add to your report pages. This information includes the view styles possible for each view, the metric used to render the view, and the standard report pages that include the view.

Device views are designed to provide status and performance information about individual devices and aggregations of NetVoyant reporting groups.

95th Percentile Device CPU Utilization Scorecard

Displays a management overview of the 95th percentile CPU usage for devices making up a reporting group. By glancing at this report it is immediately obvious where there may be problems and how significant the problem are.

When set to a 95th percentile, this is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.

Scorecard views display monthly performance data for the previous six-month or seven-week period by sub-group, for the selected group. Scorecards are high-level indicators of whether or not measured resources are meeting service-level goals. These views incorporate check marks and exclamation points as visual indicators to enhance quick understanding.

95th Percentile CPU Utilization Scorecard									
Wed 4 Nov 2009 - Tue 10 Nov 2009 CST									
Group ▲	Target	Sep 27	Oct 4	Oct 11	Oct 18	Oct 25	Nov 1	Nov 8	Average
- NetVoyant	<= 95.00	✓ 48.1	✓ 49.4	✓ 48.3	✓ 52.6	✓ 49.3	✓ 59.2	✓ 61.5	✓ 52.6
Devices	<= 95.00	✓ 48.1	✓ 49.4	✓ 48.3	✓ 52.6	✓ 49.3	✓ 59.2	✓ 61.5	✓ 52.6
Networks	<= 95.00	--	--	--	--	--	--	--	--
1 of 1									
Max Per Page: 10 ▼									

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `hrprocessor`, which corresponds to the Host Resource Processor Table dataset in NetVoyant. You can edit the scorecard target in the Custom View Wizard to determine how the values in the scorecard are calculated and displayed.
- Styles: This view can be displayed as table only.
- Standard NetVoyant reports: This view is included in the [Scorecards Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Scorecards report.

Availability Details

Displays detailed information about a device and its availability during the selected period.

Availability Details	
Router: BethsRouter.QA.local	
Attribute	Value
Name	BethsRouter.QA.local
Description	Cisco IOS Software, 2800 Software (C2800NM-ADVIPSERVICESK9-M), Version 12.4(11)XW8, RELEASE SOFTWARE (fc2) Technical Support http://www.cisco.com/techsupport Copyright (c) 1986-2008 by Cisco Systems, Inc. Compiled Thu 05-Jun-08 22:10 by prod_rel_team
Device sysName	BethsRouter.QA.local
Device sysDescr	Cisco IOS Software, 2800 Software (C2800NM-ADVIPSERVICESK9-M), Version 12.4(11)XW8, RELEASE SOFTWARE (fc2) Technical Support http://www.cisco.com/techsupport Copyright (c) 1986-2008 by Cisco Systems, Inc. Compiled Thu 05-Jun-08 22:10 by prod_rel_team
Polling Enabled	Yes
Polling Station	S-216
Properties:	
Latency Threshold	Not specified
Latency Cleared	Not specified
1 of 1	

Note: This view cannot be edited in the Custom View Wizard.

- Context: This view requires a selected device, server, router, switch, or interface to be displayed.
- Data: This view uses multiple metrics to render property information for the managed object. This view includes values for the following attributes:
 - Name: The device DNS name or IP address. You can configure NetVoyant to apply names to your discovered devices using the `sysName` OID. You can also edit the device alias to another value on the device Details tab in the NetVoyant console. For more information, see the *NetVoyant Administrator Guide*.
 - Description: Device description in NetVoyant or as identified in the `sysDescr` OID on the device.
 - Device `sysName`: Device name as identified in the `sysName` OID on the device. You can configure NetVoyant to apply names to your discovered devices using the `sysName` OID. For more information, see the *NetVoyant Administrator Guide*.
 - Device `sysDescr`: Device description as identified in the `sysDescr` OID on the device.
 - Polling Enabled: Whether polling is enabled for the device. When polling is enabled, NetVoyant gathers data for the device.

- Polling Station: NetVoyant server that polls the device for SNMP statistics. In a distributed configuration, this is the poller that polls the device. In a standalone configuration, the poller is the Master console.
- Properties: Properties for the selected device.
- Latency Threshold: Most restrictive threshold for Availability that is assigned to a NetVoyant group where the device is a member.
- Latency Cleared: Date and time the most recent Availability threshold event associated with the device was cleared.
- Styles: This view can be displayed as table only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Availability Distribution (Count/Percentage)

Displays the number of devices that fall within the defined average availability ranges in a reporting group.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

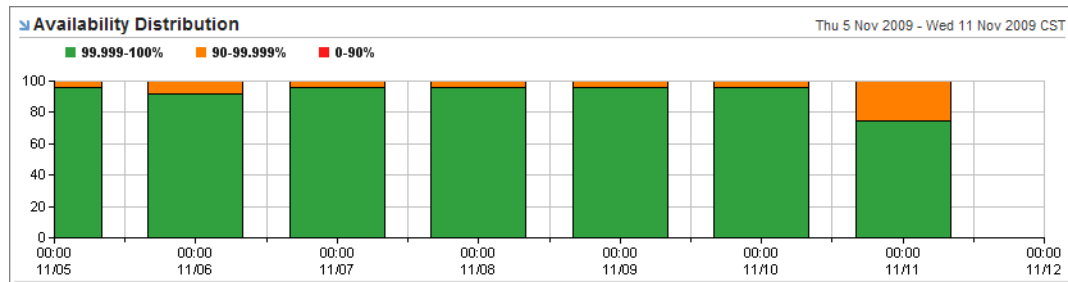
Availability Distribution		Thu 5 Nov 2009 - Wed 11 Nov 2009 CST		
Date/Time ▲	0-90%	90-99.999%	99.999-100%	
Thu 05 November	0 / 0%	1 / 4.17%	23 / 95.83%	
Fri 06 November	0 / 0%	2 / 8.33%	22 / 91.67%	
Sat 07 November	0 / 0%	1 / 4.17%	23 / 95.83%	
Sun 08 November	0 / 0%	1 / 4.17%	23 / 95.83%	
Mon 09 November	0 / 0%	1 / 4.17%	23 / 95.83%	
Tue 10 November	0 / 0%	1 / 4.17%	23 / 95.83%	
Wed 11 November	0 / 0%	1 / 25.00%	3 / 75.00%	

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is avail, which corresponds to the Device Availability dataset in NetVoyant. The view includes data for the following expressions:
 - 99.999-100%: Number and percentage of availability values between 99.999 and 100.
 - 90-99.999%: Number and percentage of availability values between 90 and 99.999.
 - 0-90%: Number and percentage of availability values 90 or below.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the Management Summary report.

Availability Distribution

Displays the number of devices that fall within the defined average availability ranges in a reporting group.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

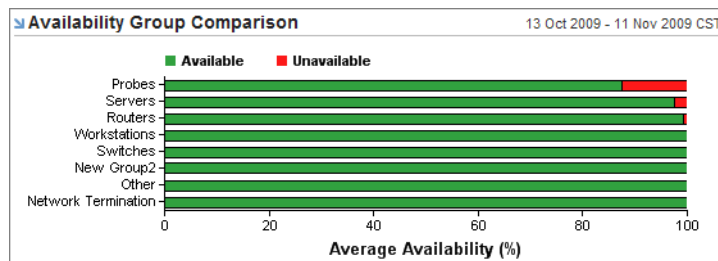


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is avail, which corresponds to the Device Availability dataset in NetVoyant. The view includes data for the following expressions:
 - 99.999-100%: Percentage of availability values between 99.999 and 100.
 - 90-99.999%: Percentage of availability values between 90 and 99.999.
 - 0-90%: Percentage of availability values 90 or less.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the Management Summary report.
- Standard NetQoS Performance Center reports: This view is included in the Management Summary report.

Availability Group Comparison

Compares the overall availability of devices in a reporting group by sub-group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.



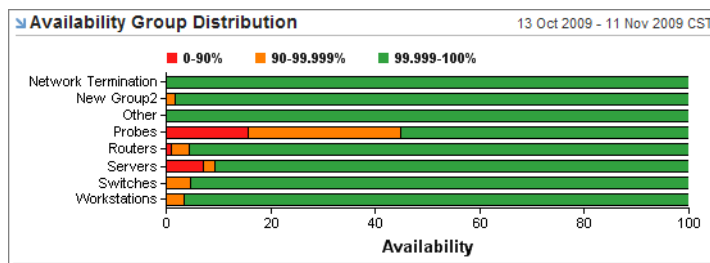
- Context: This view requires a selected reporting group to be displayed.

- **Data:** The metric used to render this view is avail, which corresponds to the Device Availability dataset in NetVoyant. The view includes data for the following expressions:
 - Available: Average availability value
 - Unavailable: Value calculated by subtracting the average availability from 100
- **Styles:** This view can be displayed as a bar chart, stacked bar chart, or table.
- **Standard NetVoyant reports:** This view is included in the Management Group Comparison report.
- **Standard NetQoS Performance Center reports:** This view is included in the Management Group Comparison report and the Availability Dashboard report.

Availability Group Distribution

Displays the number of devices by sub-group that fall within the defined average availability ranges in a reporting group.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.



- **Context:** This view requires a selected reporting group to be displayed.
- **Data:** The metric used to render this view is avail, which corresponds to the Device Availability dataset in NetVoyant. The view includes data for the following expressions:
 - 0-90%: Number of availability values 90 or less.
 - 90-99.999%: Number of availability values between 90 and 99.999.
 - 99.999-100%: Number of availability values between 99.999 and 100.
- **Styles:** This view can be displayed as a stacked bar chart or table.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Availability Scorecard

Displays an overview scorecard for the average availability of devices across multiple groups or sub-groups. You can select a goal range for the values to determine how the values in the scorecard display.

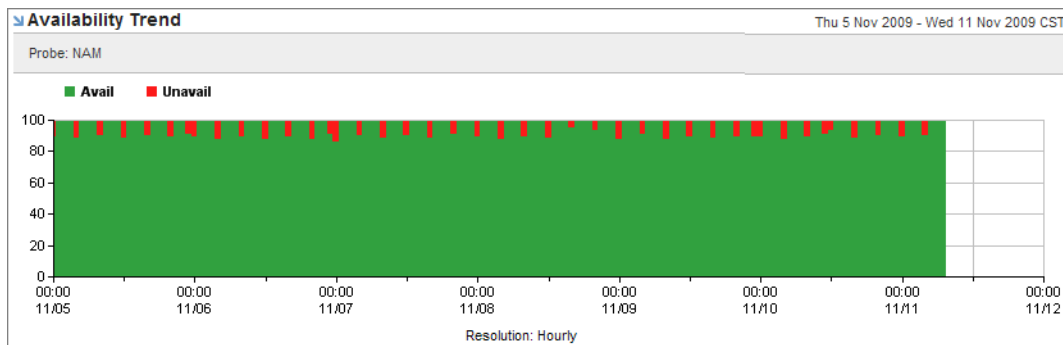
Scorecard views display monthly performance data for the previous six month or seven week period by sub-group, for a group. Scorecards are high-level indicators of whether or not measured resources are meeting service-level goals. These views incorporate check marks and exclamation points as visual indicators to enhance quick understanding.

Availability Scorecard									
Thu 5 Nov 2009 - Wed 11 Nov 2009 CST									
Group ▲	Target	Sep 27	Oct 4	Oct 11	Oct 18	Oct 25	Nov 1	Nov 8	Average
- Devices	>= 98.00	✓ 99.799	✓ 99.820	✓ 99.732	✓ 99.755	✓ 99.805	✓ 99.634	✓ 99.825	✓ 99.767
Network Termination	>= 98.00	--	--	--	--	--	--	--	--
Other	>= 98.00	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000
Printers	>= 98.00	--	--	--	--	--	--	--	--
Probes	>= 98.00	! 96.992	! 97.293	! 97.163	! 96.543	! 96.687	! 96.409	! 97.093	! 96.883
Routers	>= 98.00	✓ 100.000	✓ 100.000	✓ 99.864	✓ 100.000	✓ 100.000	✓ 99.770	✓ 99.976	✓ 99.944
Servers	>= 98.00	✓ 100.000	✓ 100.000	✓ 100.000	✓ 99.644	✓ 100.000	✓ 99.967	✓ 100.000	✓ 99.944
Switches	>= 98.00	✓ 100.000	✓ 100.000	✓ 99.972	✓ 100.000	✓ 100.000	✓ 99.801	✓ 100.000	✓ 99.967
1 2									
Max Per Page: 10									

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is avail, which corresponds to the Device Availability dataset in NetVoyant.
This scorecard view uses a default target percentage of 98.0, so that sub-groups with an average availability below that target are displayed with a red exclamation point to indicate that the item falls below the target. You can modify this target value in the Custom View Wizard to meet your organization's service level goals.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Scorecards Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Scorecards report and the Availability Dashboard report.

Availability Trend

Displays the availability and unavailability values for a managed object over the selected period.

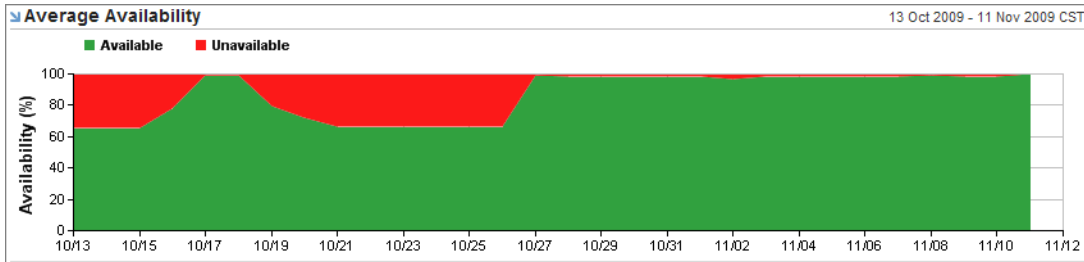


- Context: This view requires a selected device, server, router, or switch to be displayed.
- Data: The metric used to render this view is avail, which corresponds to the Device Availability dataset in NetVoyant. The view includes data for the following expressions:
 - Avail: The device's average availability as a value between 0 and 100.
 - Unavail: The value calculated by subtracting the average availability from 100.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Server Performance Report](#), [Router Performance Report](#), and [Device Performance Report](#).

- Standard NetQoS Performance Center reports: This view is included in the Router Performance report and the Switch Performance report.

Average Availability

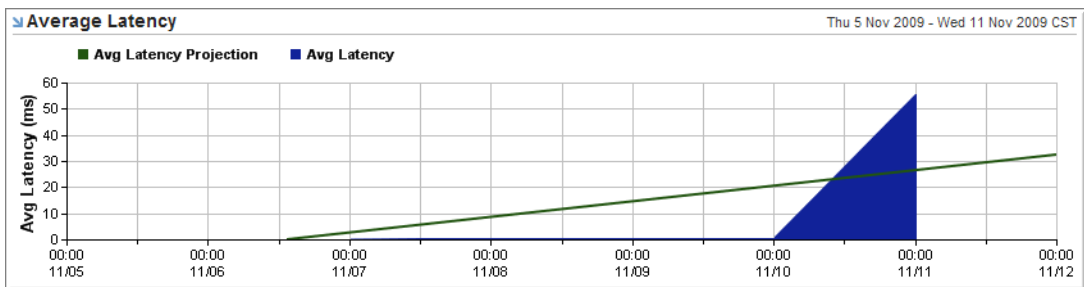
Displays the average percentage that devices in a reporting group were available and unavailable by date and time over the selected period.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is avail, which corresponds to the Device Availability dataset in NetVoyant. The view includes data for the following expressions:
 - Avail: The average availability as a value between 0 and 100.
 - Unavail: The value calculated by subtracting the average availability from 100.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Management Summary Report](#) and [Server Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Management Summary report and the Server Summary report.

Average Latency

Displays the average latency values (ms) for devices in a reporting group during the selected period. This view includes a projection trend when the selected period is one week or greater.

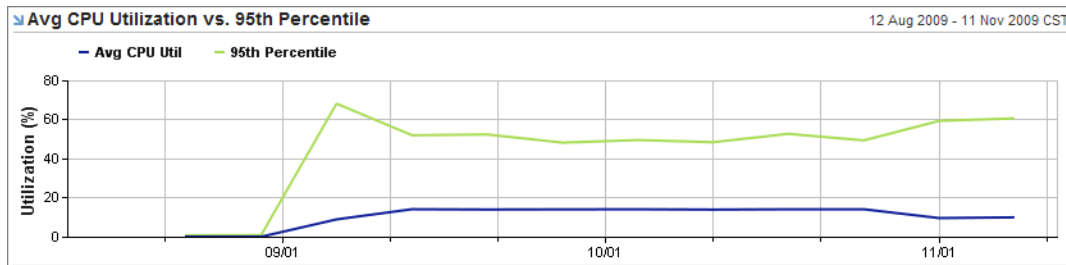


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the average latency projection is not displayed.
- Standard NetVoyant reports: This view is included in the [Router Summary Report](#) and [Server Summary Report](#).

- Standard NetQoS Performance Center reports: This view is included in the Router Summary report and the Server Summary report.

Avg CPU Utilization vs. 95th Percentile

Displays the average CPU usage for all devices in a group over a selected period compared to the 95th percentile and the 95th percentile usage projection.



- Context: This view requires a selected reporting group, device, or server to be displayed.
- Data: The metric used to render this view is hrprocessor, which corresponds to the Host Resource Processor Table dataset in NetVoyant. The view includes data for the following expressions:
 - Avg CPU Util: Average usage value for the processor
 - 95th Percentile: This is the value such that 95 percent of usage data for the rollup period is less than this value. This removes spikes in usage from the data.

Note: When you display this view as a table, the 95th percentile usage projection is not displayed.

- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the Server Summary report.
- Standard NetQoS Performance Center reports: This view is included in the Server Summary report.

Closest to Threshold - Device CPU Utilization

Displays those servers that have average CPU usage closest to the CPU usage threshold. This view also displays the projected number of days until the CPU usage for each device crosses the threshold.

Closest to Threshold views calculate the trend for an expression. When that calculation projects that the value for the expression will reach or exceed threshold within one year, the data is represented in the view. For example, when usage is on an incline and thus the baseline is also on an incline, a projection calculation predicts when the device will meet or exceed the threshold.

Name	Metric	Average	Threshold	Days to Threshold ▲
QA1-14::Intel	Processor Load	0.27%	1.00%	89 <div></div>
QA1-11::Intel	Processor Load	0.19%	1.00%	181 <div></div>

Show Top: ▼

- Context: This view requires a selected reporting group to be displayed.

- Data: The metric used to render this view is `hrprocessor`, which corresponds to the Host Resource Processor Table dataset in NetVoyant. The view includes data for the following:
 - Metric: Processor Load
 - Average: Average usage as a percentage
 - Threshold: The threshold for the `hrprocessorload` expression in NetVoyant
 - Days to Threshold: The projected number of days until the value for the expression exceeds the threshold
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Closest to Threshold Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Closest to Threshold report and the Alerts and Violations report.

Closest to Threshold - Device Memory Utilization

Displays those servers that have average memory usage closest to the memory usage threshold. This view also displays the projected number of days until the memory usage for each device crosses the threshold.

Closest to Threshold views calculate the trend for an expression. When that calculation projects that the value for the expression will reach or exceed threshold within one year, the data is represented in the view. For example, when usage is on an incline and thus the baseline is also on an incline, a projection calculation predicts when the device will meet or exceed the threshold.

Closest to Threshold - Device Memory Utilization					12 Aug 2009 - 11 Nov 2009 CST
Name	Metric	Average	Threshold	Days to Threshold ▲	
QA1-14::Physical Memory	Percent Used	27.37%	95.00%	238	<div><div></div></div>
QA1-11::Physical Memory	Percent Used	30.85%	95.00%	277	<div><div></div></div>

Show Top: 10 ▼

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `hrstorage`, which corresponds to the Host Resource Storage Table dataset in NetVoyant. The view includes data for the following:
 - Metric: Description of the storage memory usage calculation - Percent Used
 - Average: Average storage as a percentage
 - Threshold: The threshold for the `percused` expression in NetVoyant
 - Days to Threshold: The projected number of days until the value for the expression exceeds the threshold
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Closest to Threshold Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Closest to Threshold report and the Alerts and Violations report.

Closest to Threshold - Latency

Displays a table of those devices that have average latencies closest to the latency threshold. This view also displays the projected number of days until the latency for each device crosses the latency threshold.

Closest to Threshold views calculate the trend for an expression. When that calculation projects that the value for the expression will reach or exceed threshold within one year, the data is represented in the view. For example, when latency is on an incline and thus the baseline is also on an incline, a projection calculation predicts when the device will meet or exceed the threshold.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant. The view includes data for the following:
 - Metric: Description of the round trip delay calculation - Percent Used
 - Average: Average round trip delay as a percentage
 - Threshold: The threshold for the avg_rt_delay expression in NetVoyant
 - Days to Threshold: The projected number of days until the value for the expression exceeds the threshold
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Closest to Threshold Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Closest to Threshold report.

CPU Util Distribution (Count)

Displays the number and percentage of devices that fall within the defined average CPU usage ranges in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

CPU Util Distribution						
Thu 5 Nov 2009 - Wed 11 Nov 2009 CST						
Date/Time ▲	0-10%	10-25%	25-50%	50-75%	75-90%	90-100%
Thu 05 November	5 / 83.33%	0 / 0%	0 / 0%	1 / 16.67%	0 / 0%	0 / 0%
Fri 06 November	5 / 83.33%	0 / 0%	0 / 0%	1 / 16.67%	0 / 0%	0 / 0%
Sat 07 November	5 / 83.33%	0 / 0%	0 / 0%	1 / 16.67%	0 / 0%	0 / 0%
Sun 08 November	5 / 83.33%	0 / 0%	0 / 0%	1 / 16.67%	0 / 0%	0 / 0%
Mon 09 November	5 / 83.33%	0 / 0%	0 / 0%	1 / 16.67%	0 / 0%	0 / 0%
Tue 10 November	5 / 83.33%	0 / 0%	0 / 0%	1 / 16.67%	0 / 0%	0 / 0%
Wed 11 November	5 / 83.33%	0 / 0%	0 / 0%	1 / 16.67%	0 / 0%	0 / 0%

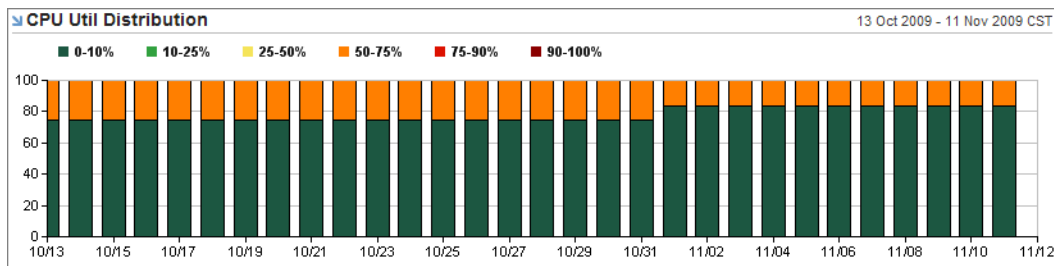
- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is hrprocessor, which corresponds to the Host Resource Processor Table dataset in NetVoyant. The view includes data for the following expressions:
 - 0-10%: Number and percentage of usage values of 10% or less.
 - 10-25%: Number and percentage of usage values between 10 and 25%.
 - 25-50%: Number and percentage of usage values between 25 and 50%.
 - 50-75%: Number and percentage of usage values between 50 and 75%.
 - 75-90%: Number and percentage of usage values between 75 and 90%.
 - 90-100%: Number and percentage of usage values between 90 and 100%.
- Styles: This view can be displayed as a stacked bar chart or table.

- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

CPU Util Distribution

Displays the percentage of devices that fall within the defined average CPU usage ranges in a reporting group during the selected period.

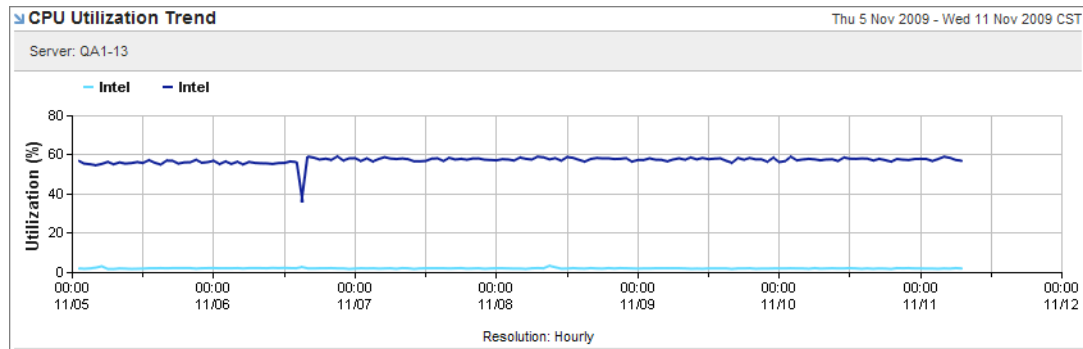
Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is hrprocessor, which corresponds to the Host Resource Processor Table dataset in NetVoyant. The view includes data for the following expressions:
 - 0-10%: Percentage of usage values of 10% or below.
 - 10-25%: Percentage of usage values between 10 and 25%.
 - 25-50%: Percentage of usage values between 25 and 50%.
 - 50-75%: Percentage of usage values between 50 and 75%.
 - 75-90%: Percentage of usage values between 75 and 90%.
 - 90-100%: Percentage of usage values between 90 and 100%.
- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is included in the [Device Capabilities Report](#), which is a standard NetVoyant report.
- Standard NetQoS Performance Center reports: This view is included in the Server Summary report.

CPU Utilization Trend

Displays the percentage of CPU usage for each processor on a device over the selected period.



- Context: This view requires a selected device or server to be displayed.
- Data: The metric used to render this view is `hrprocessor`, which corresponds to the Host Resource Processor Table dataset in NetVoyant. This view cannot be edited in the Custom View Wizard.
- Styles: This view can be displayed as a line chart only.
- Standard NetVoyant reports: This view is included in the [Server Performance Report](#) and [Device Performance Report](#).

CPU Util Group Comparison

Compares the average CPU usage for all devices by sub-group in a reporting group during the selected period.

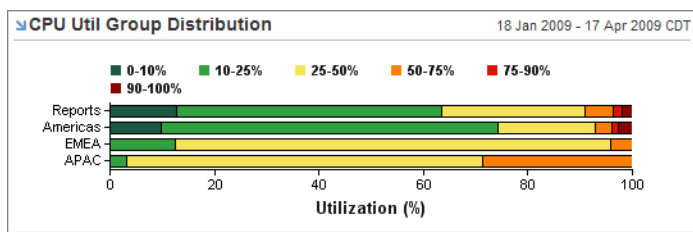
Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `hrprocessor`, which corresponds to the Host Resource Processor Table dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Server Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Server Group Comparison report.

CPU Util Group Distribution

Displays the number of devices, by sub-group, that fall within the defined average CPU usage ranges in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

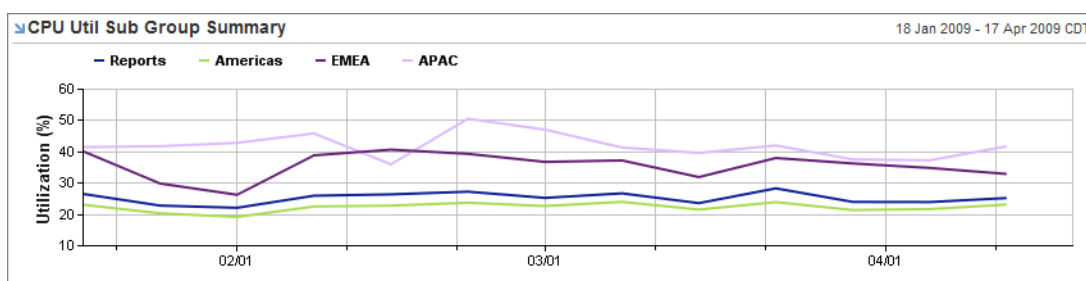


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `hrprocessor`, which corresponds to the Host Resource Processor Table dataset in NetVoyant. The view includes data for the following expressions:
 - 0-10%: Number of usage values of 10% or below.
 - 10-25%: Number of usage values between 10 and 25%.
 - 25-50%: Number of usage values between 25 and 50%.
 - 50-75%: Number of usage values between 50 and 75%.
 - 75-90%: Number of usage values between 75 and 90%.
 - 90-100%: Number of usage values between 90 and 100%.
- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

CPU Util Sub Group Summary

Compares the average CPU usage for devices by sub-group for a reporting group during the selected period.

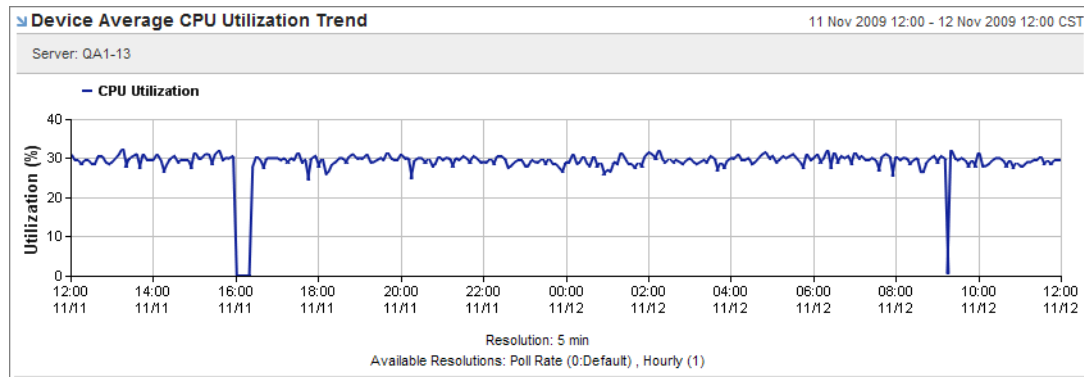
Group Summary views provide an aggregate view for the selected group broken down by sub-group to display meaningful comparisons of performance. Because reporting groups and sub-groups are typically organized to match your network organization, these views can also provide insights into how specific parts of your network compare to others.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `hrprocessor`, which corresponds to the Host Resource Processor Table dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the Server Group Comparison report.
- Standard NetQoS Performance Center reports: This view is included in the Server Group Comparison report.

Device Average CPU Utilization Trend

Displays the average CPU usage percentage for all processors on a device over the selected period.



- Context: This view requires a selected device or server to be displayed.
- Data: The metric used to render this view is hrprocessor, which corresponds to the Host Resource Processor Table dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Device Details

Displays a table containing property information for a device.

- Context: This view requires a selected device, server, router, switch, or interface to be displayed.
- Data: This view uses multiple metrics to render property information for the managed object. This view includes values for the following attributes:
 - Device Alias: The DNS name or IP address. You can configure NetVoyant to apply names to your discovered devices using the sysName OID. You can also edit the device alias to another value on the device Details tab in the NetVoyant console.
 - Device Name: The DNS name or IP address.
 - sysName: The device name as identified in the sysName OID on the device. You can configure NetVoyant to apply names to your discovered devices using the sysName OID.
 - sysDescr: The device description as identified in the sysDescr OID on the device.
 - sysObjectId: The device SNMP agent uniquely identifies the device model using the sysObjectID.
 - sysContact: The device contact person as identified in the sysContact OID on the device.
 - sysLocation: The device location as identified in the sysLocation OID on the device.
 - SNMP Capable: The SNMP version that the device SNMP agent supports.
 - Device Class: The device class, as identified during discovery.
 - Device Model: The device model, as identified during discovery.
 - SNMP Timeout: The length of time in seconds to wait for an SNMP reply from the device before it considers the request to have timed out. Longer timeouts significantly increase how long it takes to complete the discovery process.

- **SNMP Retries:** The number of times to retry the device for each SNMP community string when an SNMP request times out. More retries significantly increase how long it takes to complete the discovery process.
- **SNMP Discovery:** Indicates how the device is configured for discovery.

The following are possible values for SNMP Discovery:

Extended indicates that the device is set to extended discovery. NetVoyant rediscovers this device's characteristics during its rediscovery process. It also uses information in this device's ARP cache and IP routing table to discover other devices to discover.

Enabled indicates that the device is enabled normally for discovery. NetVoyant rediscovers this device's characteristics during its rediscovery process.

Disabled indicates that discovery is disabled for the device. NetVoyant does not rediscover this device's characteristics during its rediscovery process.

- **Polling Enabled:** Whether polling is enabled for the device. When polling is enabled, NetVoyant gathers data for the device.
- **Polling Station:** The NetVoyant server that polls the device for SNMP statistics. In a distributed configuration, this is the poller that polls the device. In a standalone configuration, the poller is the Master console.
- **Properties:** Properties for the selected device.

Note: This view cannot be edited in the Custom View Wizard.

- **Styles:** This view can be displayed as table only.
- **Standard NetVoyant reports:** This view is included in the [Device Details Report](#), [Server Details Report](#), [Router Details Report](#), and [Switch Details Report](#).
- **Standard NetQoS Performance Center reports:** This view is included in the [Interface Details report](#), [Router Details report](#), and [Switch Details report](#).

Device List

Displays a list of devices in a reporting group. The information presented in the table is similar to what is displayed when you perform a device search. This view lets you drill in to more information about an individual device.

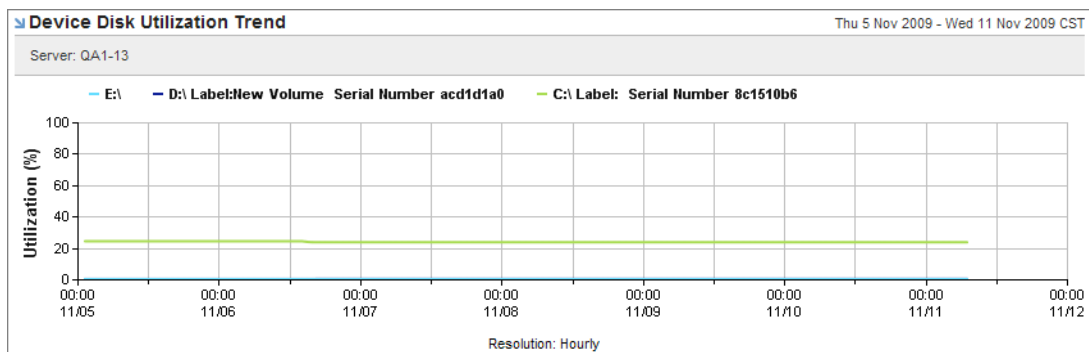
Device List						
12 Aug 2009 - 11 Nov 2009 CST						
Status	Name	Type	Model	Polling Status	Polling Expiration	Description
	Mimic2Dev594	Router	Cisco2821	Enabled	Never	Cisco IOS Software, 2800 Software (C2800NM-ADVENTERPRISEK9-M...
	QA1-13	Server	Windows Server	Enabled	Never	Hardware: x86 Family 6 Model 15 Stepping 6 AT/AT COMPATIBLE ...
	Device155	Router	Cisco7206	Enabled	Never	Cisco Internetwork Operating System Software ..IOS (tm) 7200...
	NAM	Probe	Cisco Network Analysis Module (WS-SVC-NAM-2)	Enabled	Never	Cisco Network Analysis Module (WS-SVC-NAM-2), Version 4.1(0....
	Mimic2Dev66	Switch	Catalyst6kMsf2	Enabled	Never	Cisco Internetwork Operating System Software ..IOS (tm) MSFC...
	10.0.4.35	Other	NonSNMP Devices	Disabled	Never	
	10.0.5.224	Other	NonSNMP Devices	Disabled	Never	
	QA1-11	Server	Windows Server	Enabled	Never	Hardware: x86 Family 6 Model 15 Stepping 6 AT/AT COMPATIBLE ...
	10.0.1.16	Other	NonSNMP Devices	Disabled	Never	
	QASwitch-3750	Other	Cisco Generic Device	Enabled	Never	Cisco IOS Software, C3750 Software (C3750-IPSERVICESK9-M), V...

- **Context:** This view requires a selected reporting group to be displayed.

- **Data:** This view uses multiple metrics to render property information for the managed object. This view includes values for the following attributes:
 - **Status:** Indicates whether the device has uncleared major alarms (red), uncleared minor alarms (yellow), or no alarms (green).
 - **Name:** The device name as identified in the sysName OID on the device. You can configure NetVoyant to apply names to your discovered devices using the sysName OID.
 - **Type:** The device type, or class, as identified during discovery.
 - **Model:** The device model, as identified during discovery.
 - **Polling Status:** The device polling status: Enabled, Disabled, Manually Disabled, Auto-Disabled, Expiring, Off-line, Out-of-scope.
 - **Polling Expiration:** When a device status is Auto-disabled or Out-of-scope, this is the date and time of its last poll instance/interface expiration. Each dataset has a setting for poll instance expiration. When NetVoyant determines that a poll instance or interface is out-of-scope or unresponsive, its expiration clock starts and elapses according to the number of days indicated in the dataset. When it expires, the poll instance or interface does not exist for that device.
 - **Description:** The device description as identified in the sysDescr OID on the device.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Device Disk Utilization Trend

Displays the percentage of disk usage for each volume on a device over the selected period.



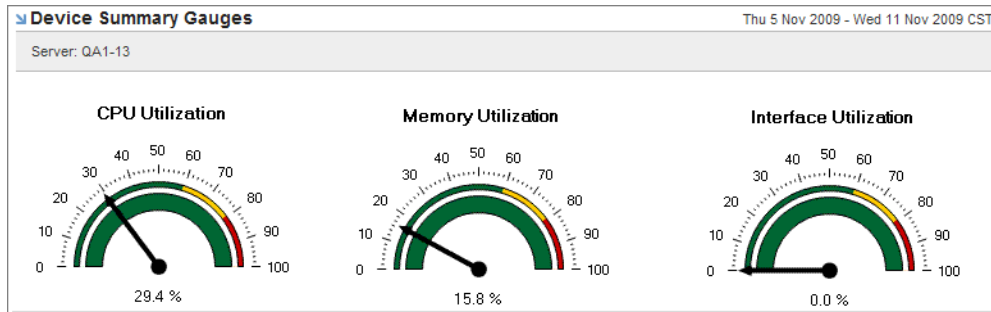
- **Context:** This view requires a selected device or server to be displayed.
- **Data:** The metric used to render this view is hrstorage, which corresponds to the Host Resource Storage Table dataset in NetVoyant. The view includes data for the following expression:

Note: This view cannot be edited in the Custom View Wizard.
- **Styles:** This view can be displayed as a line chart only.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Device Summary Gauges

Displays the performance index, compared to a baseline, for the CPU usage, the memory usage, and the interface usage on a selected device.

Gauge views are designed to provide a high-level indication of desirable and undesirable numbers according to baselines and thresholds.



Note: This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.

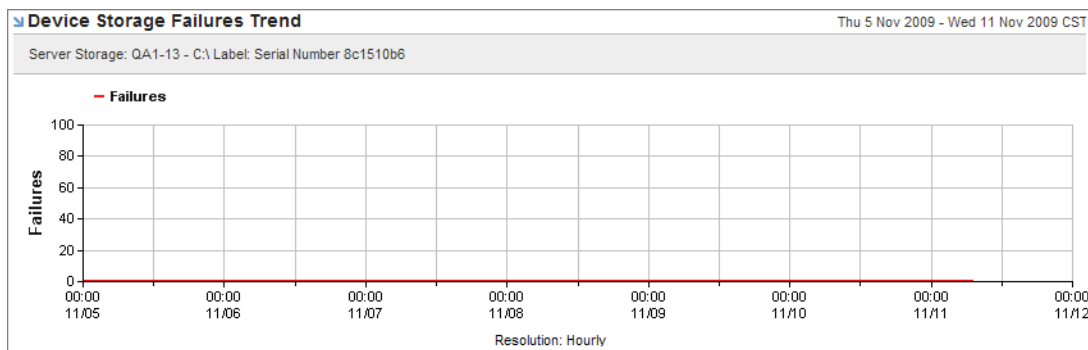
Context: This view requires a selected device or server to be displayed.

Styles: This view can be displayed as gauge chart only.

Standard NetVoyant reports: This view is included in the [Device Performance Report](#) and [Server Performance Report](#).

Device Storage Failures Trend

Displays the number of storage allocations failures on a selected device storage volume over the selected period. Storage allocation failures are those requests for storage that are not honored due to insufficient storage.



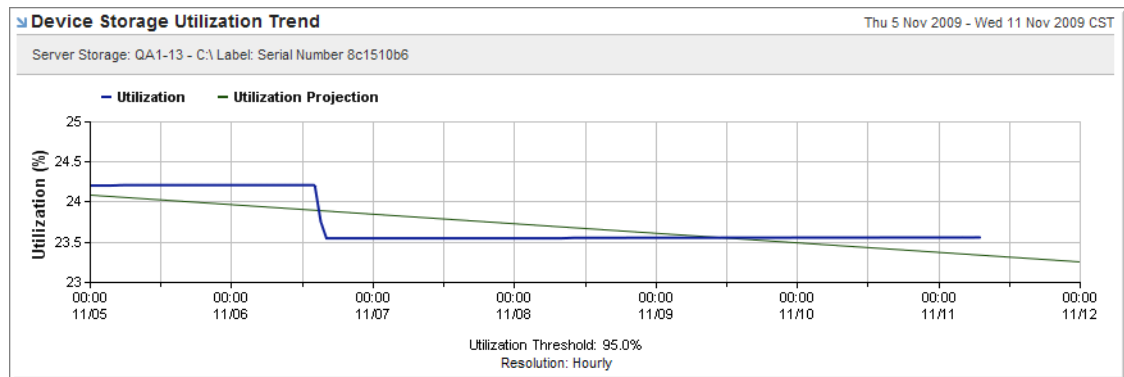
- **Context:** This view requires a selected server storage drive to be displayed.
- **Data:** The metric used to render this view is `hrstorage`, which corresponds to the Host Resource Storage dataset in NetVoyant.
- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is included in the [Server Storage Performance Report](#).

Device Storage Utilization Trend

Displays storage usage on a selected device storage volume over the selected period. This view includes a 30-day moving baseline (hourly or daily periods) or projection (weekly or greater periods). The view footer also displays the usage threshold value for the device, with a warning message when the values in the view are exceeding the threshold.

The percentage of usage is calculated by dividing the amount of storage used by the storage size.

Note: The 30-day moving baseline is calculated using the value for each hour of the day and the percentage usage for each hour of the day compared to the theoretical maximum (threshold) for an interface over the selected period. The effects of a threshold change in an alarm profile assigned to the interface are not seen until NetVoyant recalculates the rolling baselines (midnight, by default).

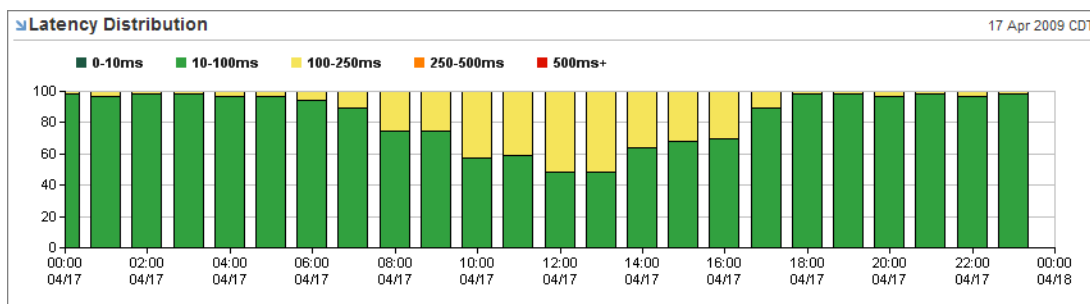


- Context: This view requires a selected server storage drive to be displayed.
- Data: The metric used to render this view is hrstorage, which corresponds to the Host Resource Storage dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Server Storage Performance Report](#).

Latency Distribution

Displays the percentage of devices that fall within the defined average latency ranges in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-10ms: Percentage of average latency (round trip delay) values of 10 milliseconds or below.
 - 10-100ms: Percentage of average latency (round trip delay) values between 10 and 100 milliseconds.
 - 100-250ms: Percentage of average latency (round trip delay) values between 100 and 250 milliseconds.
 - 250-500ms: Percentage of average latency (round trip delay) values between 250 and 500 milliseconds.
 - 500ms+: Percentage of average latency (round trip delay) values greater than 500 milliseconds.
- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Latency Distribution (Count)

Displays the number and percentage of devices, by sub-group, that fall within the defined average latency ranges in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

Latency Distribution		Sat 11 Apr 2009 - Fri 17 Apr 2009 CDT				
Date/Time ▲	0-10ms	10-100ms	100-250ms	250-500ms	500ms+	
Sat 11 April	0 / 0%	29 / 51.79%	27 / 48.21%	0 / 0%	0 / 0%	
Sun 12 April	0 / 0%	32 / 57.14%	24 / 42.86%	0 / 0%	0 / 0%	
Mon 13 April	0 / 0%	27 / 48.21%	29 / 51.79%	0 / 0%	0 / 0%	
Tue 14 April	0 / 0%	33 / 58.93%	23 / 41.07%	0 / 0%	0 / 0%	
Wed 15 April	0 / 0%	27 / 48.21%	29 / 51.79%	0 / 0%	0 / 0%	
Thu 16 April	0 / 0%	31 / 55.36%	25 / 44.64%	0 / 0%	0 / 0%	
Fri 17 April	0 / 0%	27 / 48.21%	29 / 51.79%	0 / 0%	0 / 0%	

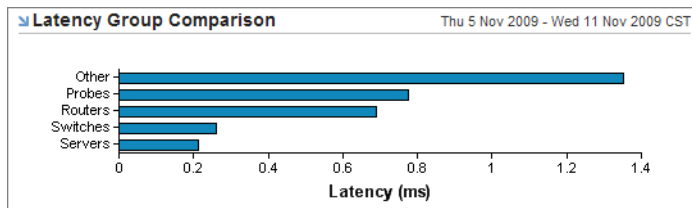
- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-10ms: Number and percentage of average latency (round trip delay) values of 10 milliseconds or below.

- 10-100ms: Number and percentage of average latency (round trip delay) values between 10 and 100 milliseconds.
- 100-250ms: Number and percentage of average latency (round trip delay) values between 100 and 250 milliseconds.
- 250-500ms: Number and percentage of average latency (round trip delay) values between 250 and 500 milliseconds.
- 500ms+: Number and percentage of average latency (round trip delay) values greater than 500 milliseconds.
- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Latency Group Comparison

Compares the average latency for all devices by sub-group in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

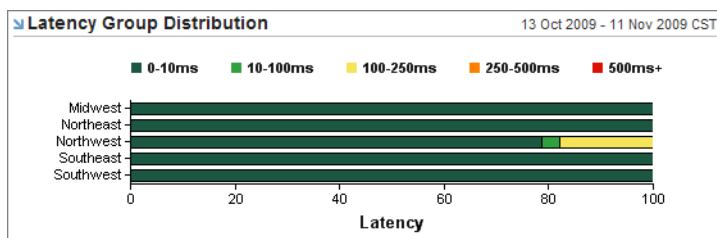


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Management Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Management Group Comparison report.

Latency Group Distribution

Displays the number of devices, by sub-group, that fall within the defined average latency ranges in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

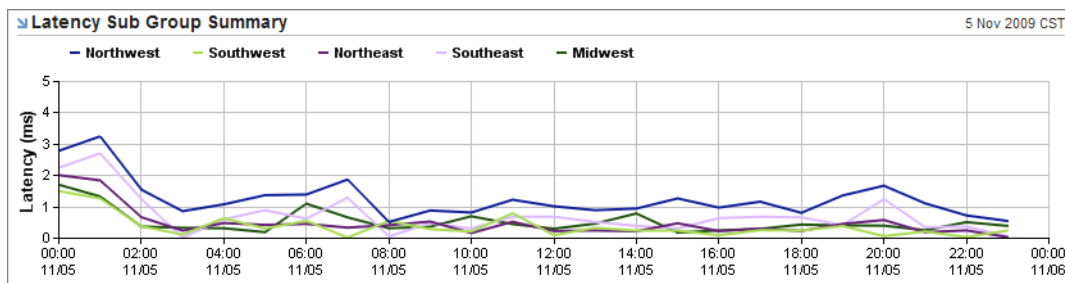


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-10ms: Number of average latency (round trip delay) values of 10 milliseconds or below.
 - 10-100ms: Number of average latency (round trip delay) values between 10 and 100 milliseconds.
 - 100-250ms: Number of average latency (round trip delay) values between 100 and 250 milliseconds.
 - 250-500ms: Number of average latency (round trip delay) values between 250 and 500 milliseconds.
 - 500ms+: Number of average latency (round trip delay) values greater than 500 milliseconds.
- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Latency Sub Group Summary

Compares the average latency for devices, by sub-group, for a reporting group during the selected period.

Group Summary views provide an aggregate view for the selected group broken down by sub-group to display meaningful comparisons of performance. Because reporting groups and sub-groups are typically organized to match your network organization, these views can also provide insights into how specific parts of your network compare to others.

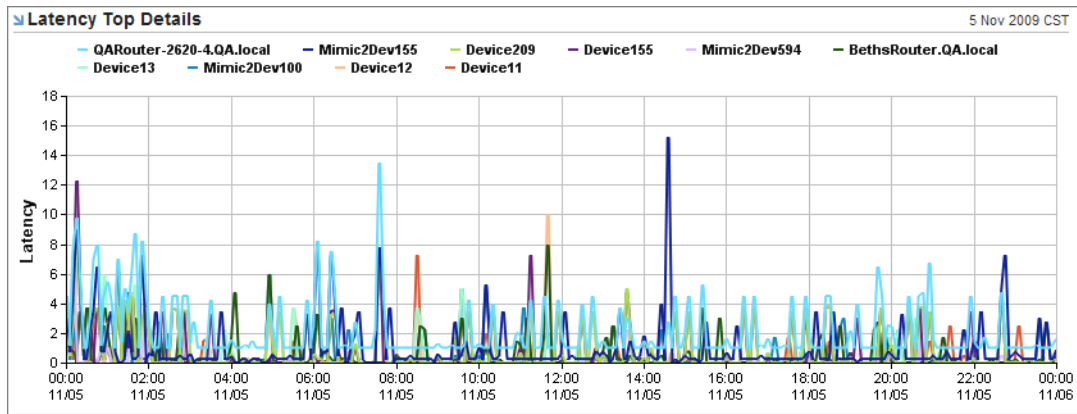


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Server Group Comparison Report](#).

- Standard NetQoS Performance Center reports: This view is included in the Server Group Comparison report.

Latency Top Details

Displays the average latency (round-trip delay in milliseconds) of those devices in a reporting group with the highest latency over the selected period.

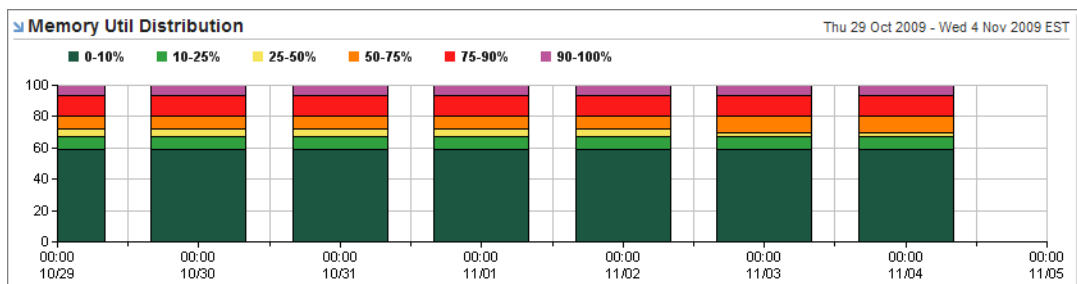


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Memory Util Distribution

Displays the number of devices, by sub-group, that fall within the defined average memory usage ranges in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.



- Context: This view requires a selected reporting group to be displayed.

- **Data:** The metric used to render this view is hrstorage, which corresponds to the Host Resource Storage dataset in NetVoyant. The view includes data for the following expressions:
 - 0-10%: Number of devices with memory usage of 10% or below.
 - 10-25%: Number of devices with memory usage between 10 and 25%.
 - 25-50%: Number of devices with memory usage between 25 and 50%.
 - 50-75%: Number of devices with memory usage between 50 and 75%.
 - 75-90%: Number of devices with memory usage between 75 and 90%.
 - 90-100%: Number of devices with memory usage between 90 and 100%.
- **Styles:** This view can be displayed as a stacked bar chart or table.
- **Standard NetVoyant reports:** This view is included in the Server Performance Report.

Memory Util Distribution (Count)

Displays the number of device that fall within the defined average memory usage ranges in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

Memory Util Distribution		Thu 5 Nov 2009 - Wed 11 Nov 2009 CST				
Date/Time ▲	0-10%	10-25%	25-50%	50-75%	75-90%	90-100%
Thu 05 November	7 / 46.67%	4 / 26.67%	3 / 20.00%	0 / 0%	0 / 0%	1 / 6.67%
Fri 06 November	7 / 46.67%	4 / 26.67%	3 / 20.00%	0 / 0%	0 / 0%	1 / 6.67%
Sat 07 November	7 / 46.67%	4 / 26.67%	3 / 20.00%	0 / 0%	0 / 0%	1 / 6.67%
Sun 08 November	7 / 46.67%	4 / 26.67%	3 / 20.00%	0 / 0%	0 / 0%	1 / 6.67%
Mon 09 November	7 / 46.67%	4 / 26.67%	3 / 20.00%	0 / 0%	0 / 0%	1 / 6.67%
Tue 10 November	7 / 46.67%	4 / 26.67%	3 / 20.00%	0 / 0%	0 / 0%	1 / 6.67%

- **Context:** This view requires a selected reporting group to be displayed.
- **Data:** The metric used to render this view is hrstorage, which corresponds to the Host Resource Storage dataset in NetVoyant. The view includes data for the following expressions:
 - 0-10%: Number and percentage of devices with memory usage of 10% or below.
 - 10-25%: Number and percentage of devices with memory usage between 10 and 25%.
 - 25-50%: Number and percentage of devices with memory usage between 25 and 50%.
 - 50-75%: Number and percentage of devices with memory usage between 50 and 75%.
 - 75-90%: Number and percentage of devices with memory usage between 75 and 90%.
 - 90-100%: Number and percentage of devices with memory usage between 90 and 100%.
- **Styles:** This view can be displayed as a stacked bar chart or table.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Memory Util Group Comparison

Compares the average memory usage for all devices by sub-group in a reporting group during the selected period.

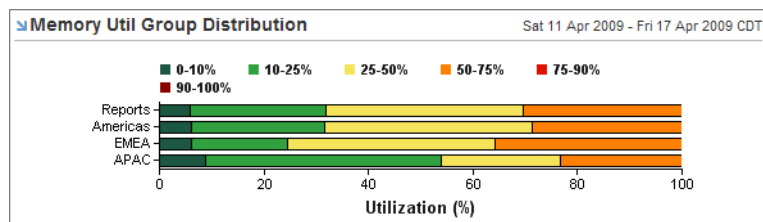
Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is hrstorage, which corresponds to the Host Resource Storage dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Server Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Server Group Comparison report.

Memory Util Group Distribution

Displays the number of devices, by sub-group, that fall within the defined average memory usage ranges in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

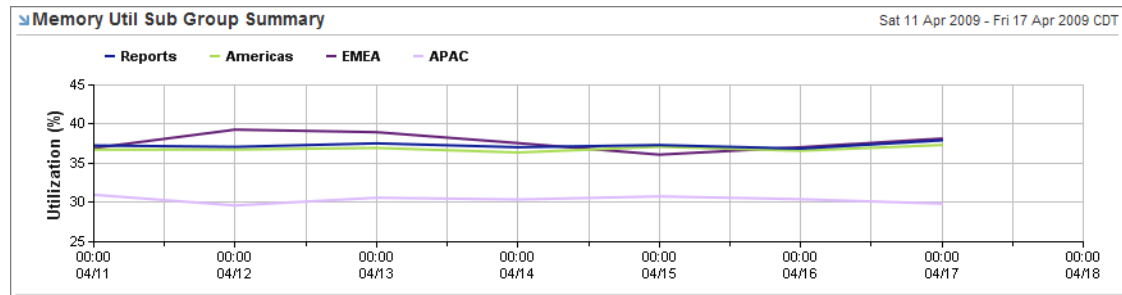


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is hrstorage, which corresponds to the Host Resource Storage dataset in NetVoyant. The view includes data for the following expressions:
 - 0-10%: Number of devices with memory usage (percent used) of 10% or below.
 - 10-25%: Number of devices with memory usage (percent used) between 10 and 25%.
 - 25-50%: Number of devices with memory usage (percent used) between 25 and 50%.
 - 50-75%: Number of devices with memory usage (percent used) between 50 and 75%.
 - 75-90%: Number of devices with memory usage (percent used) between 75 and 90%.
 - 90-100%: Number of devices with memory usage (percent used) between 90 and 100%.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Memory Util Sub Group Summary

Compares the average memory usage for devices, by sub-group, for a reporting group during the selected period.

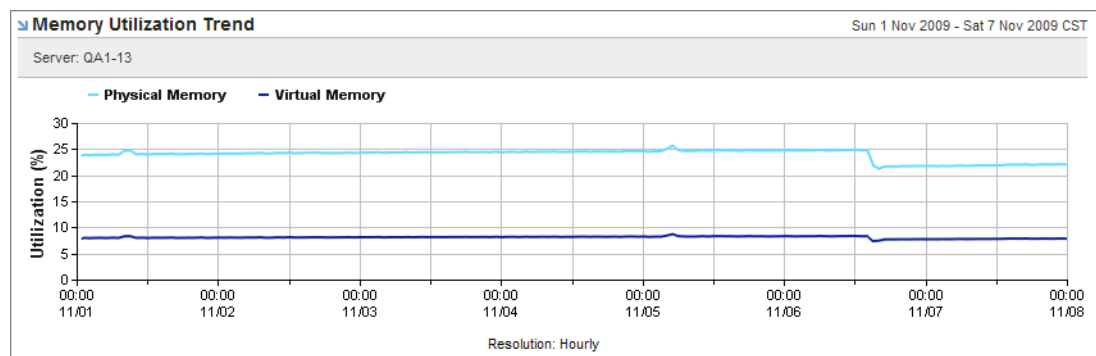
Group Summary views provide an aggregate view for a group broken down by sub-group to display meaningful comparisons of performance. Because reporting groups and sub-groups are typically organized to match your network organization, these views can also provide insights into how specific parts of your network compare to others.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `hrstorage`, which corresponds to the Host Resource Storage dataset in NetVoyant. The view includes data for the following expressions:
 - Avg Utilization: Average memory usage (percent used) for all devices within the group/sub-group
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the Server Group Comparison report.
- Standard NetQoS Performance Center reports: This view is included in the Server Group Comparison report.

Memory Utilization Trend

Displays the memory usage percentage for both physical and virtual memory on a device over the selected period. Percentage is calculated by dividing the amount used by the total size.

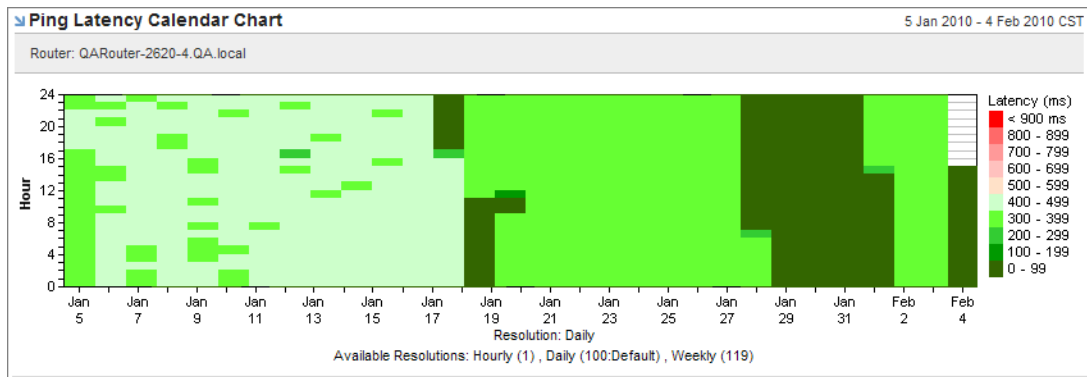


- Context: This view requires a selected device or server to be displayed.
- Data: The metric used to render this view is `hrstorage`, which corresponds to the Host Resource Storage dataset in NetVoyant.

- Styles: This view can be displayed as line chart only.
- Standard NetVoyant reports: This view is included in the Device Performance report.

Ping Latency Calendar Chart

Displays the average round-trip time for a ping response for a selected device in a monthly calendar format over the selected period.

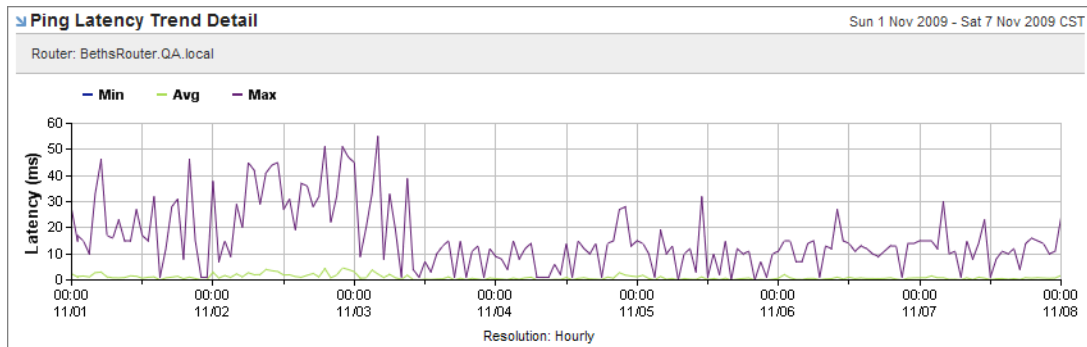


Note: This view cannot be edited in the Custom View Wizard.

- Context: This view requires a selected device, server, router, or switch to be displayed.
- Data: The metric used to render this view is avail, which corresponds to the Device Availability dataset in NetVoyant.
- Styles: This view can be displayed as calendar chart only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Router Performance report and the Switch Performance report.

Ping Latency Trend Detail

Displays the maximum, minimum, and average ping response times for a device over the selected period.



- Context: This view requires a selected device, server, router, switch, or interface to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant.

- Min: Minimum round-trip time delay
- Avg: Average round-trip time delay
- Max: Maximum round-trip time delay

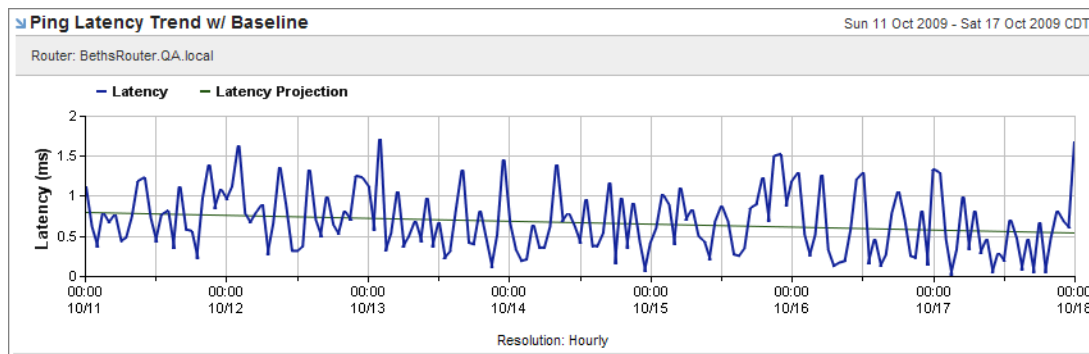
Note: Minimum and maximum values are calculated using rollup data and cannot be displayed when the resolution is set to the poll rate.

- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Ping Latency Trend w/ Baseline

Displays the longest ping response times from a device over the selected period to its baseline. This view includes a 30-day moving baseline (hourly or daily periods) or projection (weekly or greater periods). Latency is the average delay in the round-trip time.

Note: The 30-day moving baseline is calculated using the value for each hour of the day and the percentage usage for each hour of the day compared to the theoretical maximum (threshold) for a device over the selected period.

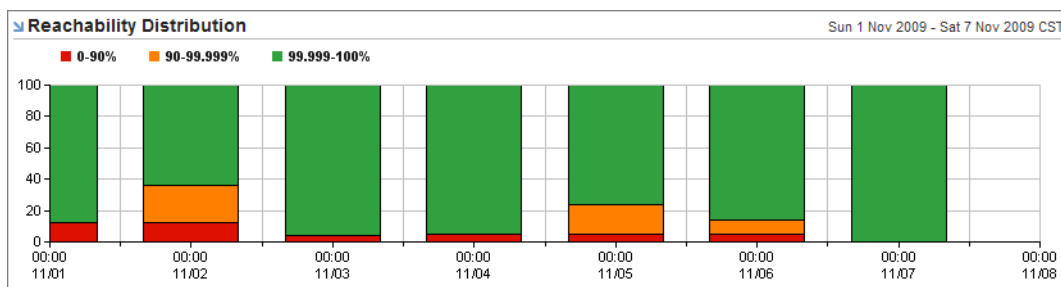


- Context: This view requires a selected device, server, router, switch, or interface to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the Device Performance report, Router Performance report, and Switch Performance report.

Reachability Distribution

Displays the percentage of devices, by sub-group, that fall within the defined average reachability ranges in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-90%: Percentage of devices with a reachability value of 90% or less.
 - 90-99.999%: Percentage of devices with a reachability value between 90 and 99.999%.
 - 99.999-100%: Percentage of devices with a reachability value between 99.999 and 100%.

Important: The reachability value is a ping received from the device during each polling interval as a percentage. For each polling interval, the reachability is either 100 (ping received) or 0 (ping not received)

- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Reachability Distribution (Count)

Displays the number and percentage of devices that fall within the defined average reachability ranges in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

Reachability Distribution				Sun 1 Nov 2009 - Sat 7 Nov 2009 CST	
Date/Time ▲	0-90%	90-99.999%	99.999-100%		
Sun 01 November	3 / 12.00%	0 / 0%	22 / 88.00%		
Mon 02 November	3 / 12.00%	6 / 24.00%	16 / 64.00%		
Tue 03 November	1 / 4.00%	0 / 0%	24 / 96.00%		
Wed 04 November	1 / 4.76%	0 / 0%	20 / 95.24%		
Thu 05 November	1 / 4.76%	4 / 19.05%	16 / 76.19%		
Fri 06 November	1 / 4.76%	2 / 9.52%	18 / 85.71%		
Sat 07 November	0 / 0%	0 / 0%	20 / 100.00%		

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-90%: Number and percentage of devices with a reachability value of 90% or below.
 - 90-99.999%: Number and percentage of devices with a reachability value between 90 and 99.999%.
 - 99.999-100%: Number and percentage of devices with a reachability value between 99.999 and 100%.

Note: The reachability value is a ping received from the device during each polling interval as a percentage. For each polling interval, the reachability is either 100 (ping received) or 0 (ping not received)

- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Reachability Group Comparison

Compares the average reachability for all devices by sub-group in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

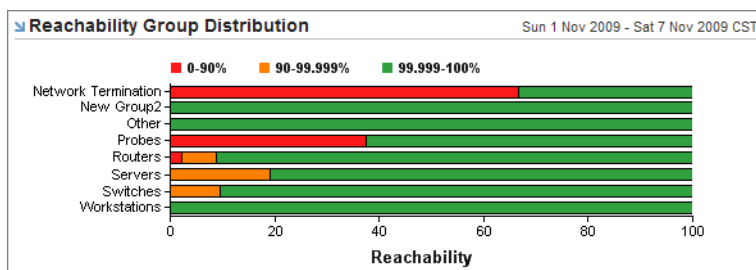


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant. The view includes data for the following expression:
 - Avg Reachability: Average of the reachability, which is a ping received from the device during each polling interval as a percentage. For each polling interval, the reachability is either 100 (ping received) or 0 (ping not received).
 - Avg Unreachability: Value calculated by subtracting the average reachability from 100
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the Management Group Comparison report.
- Standard NetQoS Performance Center reports: This view is included in the Management Group Comparison report and the Availability Dashboard report.

Reachability Group Distribution

Displays the overall reachability values of devices, by sub-group, for a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.



- **Context:** This view requires a selected reporting group to be displayed.
- **Data:** The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-90%: Number of devices with a reachability value of 90% or below.
 - 90-99.999%: Number of devices with a reachability value between 90 and 99.999%.
 - 99.999-100%: Number of devices with a reachability value between 99.999 and 100%.

Note: The reachability value is a ping received from the device during each polling interval as a percentage. For each polling interval, the reachability is either 100 (ping received) or 0 (ping not received)

- **Styles:** This view can be displayed as a stacked bar chart or table.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Reachability Scorecard

Displays an overview scorecard for the average reachability of devices across multiple groups or subgroups. You can select a goal range for the values to determine how the values in the scorecard are displayed.

The reachability value is a ping received from the device during each polling interval as a percentage. For each polling interval, the reachability is either 100 (ping received) or 0 (ping not received)

Scorecard views display monthly performance data for the previous six month or seven week period by sub-group, for the selected group. Scorecards are high-level indicators of whether or not measured resources are meeting service-level goals. These views incorporate check marks and exclamation points as visual indicators to enhance quick understanding.

Reachability Scorecard									
Sun 1 Nov 2009 - Sat 7 Nov 2009 CST									
Group	Target	Sep 20	Sep 27	Oct 4	Oct 11	Oct 18	Oct 25	Nov 1	Average
- Routers	>= 98.00	✓ 100.000	✓ 99.995	✓ 100.000	✓ 99.833	! 97.772	✓ 99.955	✓ 98.771	✓ 99.428
Midwest	>= 98.00	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	✓ 99.735	✓ 99.962
Northeast	>= 98.00	✓ 100.000	✓ 99.983	✓ 100.000	✓ 99.669	✓ 99.868	✓ 99.857	✓ 99.868	✓ 99.892
Northwest	>= 98.00	✓ 100.000	✓ 100.000	✓ 100.000	✓ 100.000	! 90.476	✓ 99.931	! 94.661	! 97.365
Southeast	>= 98.00	✓ 100.000	✓ 100.000	✓ 100.000	✓ 99.752	✓ 100.000	✓ 100.000	✓ 100.000	✓ 99.975
Southwest	>= 98.00	✓ 100.000	✓ 100.000	✓ 100.000	✓ 99.802	✓ 100.000	✓ 100.000	✓ 100.000	✓ 99.972

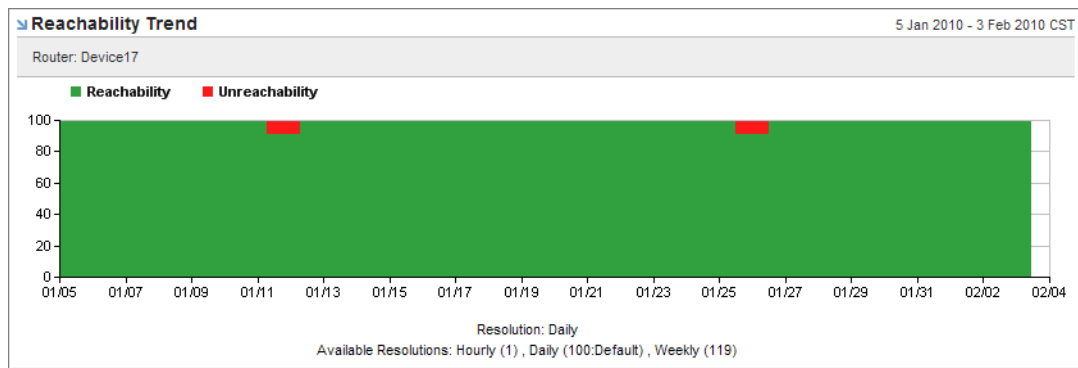
- **Context:** This view requires a selected reporting group to be displayed.
- **Data:** The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant.

This scorecard uses a default target percentage of 98.0, so that sub-groups with an average reachability below that target are displayed with a red exclamation point to indicate that the item falls below the target. You can modify this target value in the Custom View Wizard to meet your organization's service level goals.

- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Scorecards Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Scorecards report and the Availability Dashboard report.

Reachability Trend

Displays the average reachability and unreachability of a device over the selected period.



- Context: This view requires a selected device, server, router, or switch to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Reachability: Average reachability, which is a ping received from the device during each polling interval as a percentage. For each polling interval, the reachability is either 100 (ping received) or 0 (ping not received).
 - Unreachability: Value calculated by subtracting the average reachability from 100
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Changes - Device CPU Utilization

Displays the current month's average CPU usage (processor load) for those devices that have the highest change in CPU usage. The amount of change in usage is calculated from the change in the 95th percentile of data from the previous period.

Note: The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.

Top Changes - Device CPU Utilization 6 Oct 2009 - 4 Nov 2009 EST

Name	Metric	Current Month Average	Current Month 95th %	Previous Month 95th %	% Change of 95th %
NCCM42P - Intel	Processor Load	0.73%	5.21%	6.56%	-26.0
NCCM70P.netqos.local - vendor_id: GenuineIntel	Processor Load	5.92%	38.34%	42.86%	-11.8
NCCM70P.netqos.local - vendor_id: GenuineIntel	Processor Load	6.86%	35.58%	38.78%	-9.0
nclabpcon01 - Intel	Processor Load	0.06%	43.60%	46.49%	-6.6
nclabpcon01 - Intel	Processor Load	0.06%	38.90%	41.29%	-6.1
NCCUPS01.netqos.local - vendor_id: GenuineIntel	Processor Load	8.31%	37.14%	35.32%	4.9
NCCUPS01.netqos.local - vendor_id: GenuineIntel	Processor Load	7.91%	36.67%	35.09%	4.3
NCCM61P.netqos.local - vendor_id: GenuineIntel	Processor Load	5.46%	29.84%	29.19%	2.2
nccm51p.netqos.local - vendor_id: GenuineIntel	Processor Load	7.05%	40.32%	39.99%	0.8
NCCM61P.netqos.local - vendor_id: GenuineIntel	Processor Load	5.95%	30.40%	30.45%	-0.2

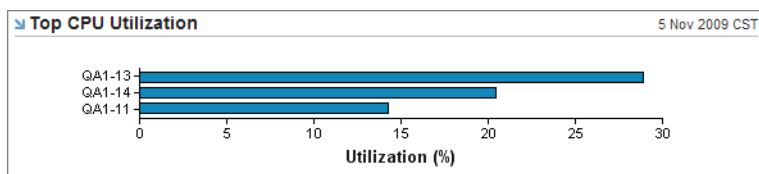
Show Top: 10

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `hrprocessor`, which corresponds to the Host Resource Processor Table dataset in NetVoyant. The view includes data for the following expression:
 - Metric: Processor Load
 - Current Month Average: Average value for the metric over the current reporting month
 - Current Month 95th %: Average value for the metric over the current reporting month using the 95th percentile data
 - Previous Month 95th %: Average value for the metric for the month previous to the current reporting month using the 95th percentile data
 - % Change of 95th %: Percentage change between the current month's 95th percentile value and the previous month's 95th percentile value
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Monthly Changes Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Monthly Changes report.

Top CPU Utilization

Displays the CPU usage on those devices in a reporting group or volumes in a managed object that are experiencing the highest processor load for the selected period. This view also displays the 95th percentile for data and the number of CPUs for each of the devices.

Note: The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.



- Context: This view requires a selected reporting group, device, or server to be displayed.
- Data: The metric used to render this view is hrprocessor, which corresponds to the Host Resource Processor Table dataset in NetVoyant. The view includes data for the following expressions:
 - CPU Util Avg: The average of the percentage of time that the processor was not idle
 - CPU Util 95th Percentile: The value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Enterprise Summary report and Server Overview report.

Top CPU Utilization (Count)

Displays the CPU usage statistics and the number of CPUs for those devices in a reporting group that are experiencing the highest processor load for the selected period. This view also displays the 95th percentile for data and the number of CPUs for each of the devices.

Top CPU Utilization				Oct 2009 CDT
Name	CPU Util Avg	CPU Util 95th Percentile	Num CPUs	
QA1-13	27.95%	32.18%	2	
QA1-11	0.03%	42.57%	3	
QA1-14	0.00%	0.81%	2	

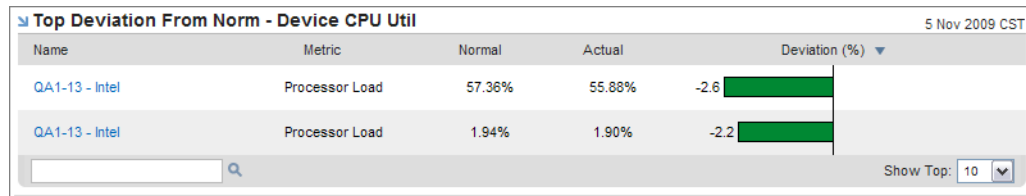
Search: Show Top: 10

- Context: This view requires a selected reporting group.
- Data: The metric used to render this view is hrprocessor, which corresponds to the Host Resource Processor Table dataset in NetVoyant. The view includes data for the following expressions:
 - CPU Util Avg: The average of the percentage of time that processing was not idle
 - CPU Util 95th Percentile: The value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.
 - Num CPUs: Number of CPUs for the device
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Operations Summary Report](#), [Server Summary Report](#), and [Server Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Server Overview report, the Server Summary report, and the Server Dashboard report.

Top Deviation From Norm - Device CPU Util

Displays those devices that have the highest deviation from the 30-day rolling baseline value for CPU usage. This view provides insight into areas experiencing rapid change.

Top Deviation from Normal views compare actual values (values during the selected period) to a calculated “normal” value and display those values that have deviated the most from that “normal” value. The “normal” values are calculated as averages using the past 30 days of baselines (generated for expressions as configured in the NetVoyant console). When you select a different period for a report, the “normal” is calculated differently. However, all are averages based on the hourly rollup values.



Name	Metric	Normal	Actual	Deviation (%)
QA1-13 - Intel	Processor Load	57.36%	55.88%	-2.6
QA1-13 - Intel	Processor Load	1.94%	1.90%	-2.2





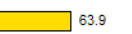





- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `hrprocessor`, which corresponds to the Host Resource Processor Table dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Processor Load
 - Normal: Normal usage value calculated from a 30-day rolling baseline
 - Actual: Average usage percentage during the selected period
 - Deviation: Actual usage calculated as a percentage above or below the normal value.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Deviation from Normal Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Deviation from Normal report.


Top Deviation From Norm - Device Memory Util

Displays those device memory resources that have the highest deviation from the 30-day rolling baseline value for memory usage. This view provides insight into areas experiencing rapid change.

Top Deviation from Normal views compare actual values (values during the selected period) to a calculated “normal” value and display those values that have deviated the most from that “normal” value. The “normal” values are calculated as averages using the past 30 days of baselines (generated for expressions as configured in the NetVoyant console). When you select a different period for a report, the “normal” is calculated differently. However, all are averages based on the hourly rollup values.

Top Deviation From Norm - Device Memory Util 6 Oct 2009 - 4 Nov 2009 EST

Name	Metric	Normal	Actual	Deviation (%)
NCCM51P.netqos.local - Virtual Memory	Percent Used	29.60%	2.39%	-91.9 
NCCM61P.netqos.local - Virtual Memory	Percent Used	18.46%	4.58%	-75.2 
NCCM70P.netqos.local - /dev/shm	Percent Used	39.24%	67.67%	72.5 
NCCUPS01.netqos.local - Virtual Memory	Percent Used	25.02%	8.85%	-64.6 
NCCM70P.netqos.local - /partB	Percent Used	2.49%	4.08%	63.9 
nclabpcn01 - Virtual Memory	Percent Used	10.85%	7.45%	-31.3 
SMALLSITE - Virtual Memory	Percent Used	3.27%	2.24%	-31.3 
SMALLSITE - Physical Memory	Percent Used	18.42%	14.48%	-21.4 
NCCM70P.netqos.local - /common	Percent Used	70.54%	83.58%	18.5 
NCCM70P.netqos.local - /grub	Percent Used	4.99%	5.72%	14.6 

 Show Top: 10

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is hrstorage, which corresponds to the Host Resource Storage Table dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Percent Used
 - Normal: Normal usage value calculated from a 30-day rolling baseline
 - Actual: Average usage percentage during the selected period
 - Deviation: Actual usage calculated as a percentage above or below the normal value.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the Top Deviation from Normal report.
- Standard NetQoS Performance Center reports: This view is included in the Top Deviation from Normal report.

Top Deviation From Norm - Latency

Displays average latency (round trip delay) for those devices that have the most change from the 30-day rolling baseline value for latency. This view provides insight into areas experiencing rapid change.

Top Deviation from Normal views compare actual values (values during the selected period) to a calculated “normal” value and display those values that have deviated the most from that “normal” value. The “normal” values are calculated as averages using the past 30 days of baselines (generated for expressions as configured in the NetVoyant console). When you select a different period for a report, the “normal” is calculated differently. However, all are averages based on the hourly rollup values.

Top Deviation From Norm - Latency					6 Oct 2009 - 4 Nov 2009 EST
Name	Metric	Normal	Actual	Deviation (%)	
nclabpcon02	Average Latency (ICMP)	0.1 ms	0.0 ms	-97.0	
NCCM42P	Average Latency (ICMP)	0.1 ms	0.0 ms	-94.3	
nclabpcon01	Average Latency (ICMP)	0.0 ms	0.0 ms	-66.2	
SMALLSITE	Average Latency (ICMP)	0.6 ms	0.2 ms	-60.9	
NCCM70P.netqos.local	Average Latency (ICMP)	0.8 ms	0.3 ms	-58.8	
NetQoS-S8300C	Average Latency (ICMP)	0.8 ms	0.4 ms	-54.2	
cmsim	Average Latency (ICMP)	1.1 ms	0.6 ms	-46.2	
raikoNG.netqos.local	Average Latency (ICMP)	0.8 ms	0.4 ms	-45.6	
NetQoS-S8300C	Average Latency (ICMP)	1.0 ms	0.6 ms	-41.5	
nclab_rtr_01	Average Latency (ICMP)	1.1 ms	0.7 ms	-40.3	

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Average Latency (ICMP)
 - Normal: Normal latency value calculated from a 30-day rolling baseline
 - Actual: Average latency percentage during the selected period
 - Deviation: Actual latency calculated as a percentage above or below the normal value.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the Top Deviation from Normal report.
- Standard NetQoS Performance Center reports: This view is included in the Top Deviation from Normal report.

Top Device Errors

Displays the devices with the highest number of errors unrelated to availability during the specified period.

Top Device Errors			4 Feb 2010 15:07 - 16:07 CST
Name	Avail %	Errors	
US_SE_NC_CHR_EmailServer::Intel	44.315%	46	
US_SE_NC_CHR_Workstation1::Unknown Processor Type	52.995%	10	
US_SE_NC_CHR_Workstation1::Unknown Processor Type	73.664%	7	
US_SE_NC_CHR_Workstation1::Fixed Disk	77.227%	3	
US_SE_NC_CHR_Workstation1::Fixed Disk	77.681%	1	
US_SE_NC_CHR_Workstation1::IBM enhanced (101- or 102-key) keyboard, Subtype=(0)	95.010%	0	

- Context: This view requires a selected reporting group, device, or server to be displayed.
- Data: The metric used to render this view is hrdevice, which corresponds to the Host Resource Device Table dataset in NetVoyant. The view includes data for the following expressions:

- Avail %: The percentage of polling intervals where the current operational state of the device is up and running with no known error conditions
- Errors: Number of errors detected
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Device Software

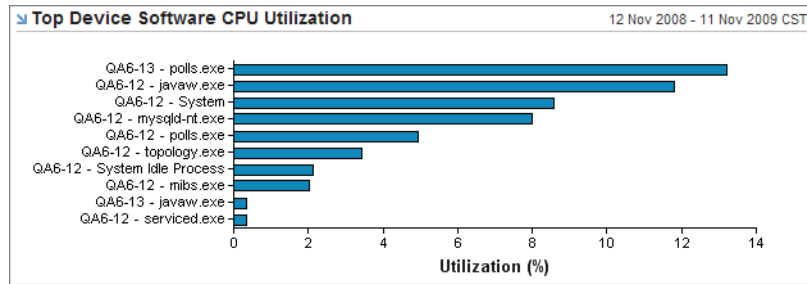
Displays the CPU and memory usage for those applications with the highest usage in a reporting group or on the selected device during the specified period.

Top Device Software			Thu 29 Oct 2009 - Wed 4 Nov 2009 EST
Name	CPU Util %	Memory Usage	
NCCM70P.netqos.local - tomcat	10.55%	403.17 MB	
NCCM70P.netqos.local - RisDC	1.42%	57.43 MB	
NCCM51P.netqos.local - sappagt	0.37%	1.18 MB	
NCCM70P.netqos.local - amc	0.32%	75.47 MB	
NCCM70P.netqos.local - dbmon	0.29%	27.81 MB	
NCCM51P.netqos.local - hostagt	0.15%	1.22 MB	
NCCM61P.netqos.local - servM	0.12%	7.22 MB	
NCCM51P.netqos.local - servM	0.12%	8.52 MB	
NCCM70P.netqos.local - sappagt	0.11%	1.19 MB	
NCCM70P.netqos.local - CTManager	0.09%	31.02 MB	

- Context: This view requires a selected reporting group, device, or server to be displayed.
- Data: The metric used to render this view is hrsrun, which corresponds to the Host Resource Software Performance dataset in NetVoyant. The view includes data for the following expressions:
 - CPU Util %: Usage percentage calculated using the number of centi-seconds of the total system CPU resources consumed by the process
 - Memory Usage: Total amount of real system memory allocated to this process
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Server Capabilities Report](#) and [Operations Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Enterprise Summary report.

Top Device Software CPU Utilization

Displays the CPU usage percentage for applications with the highest CPU usage on the devices in a reporting group during the specified period. The usage percentage is calculated using the number of centi-seconds of the total system's CPU resources consumed by the process



- Context: This view requires a selected reporting group, device, or server to be displayed.
- Data: The metric used to render this view is hrswrun, which corresponds to the Host Resource Software Performance dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Disk Storage

Displays the disk storage usage on those storage volumes in a reporting group or on a managed device with the highest percentage of storage volume used during the selected period.

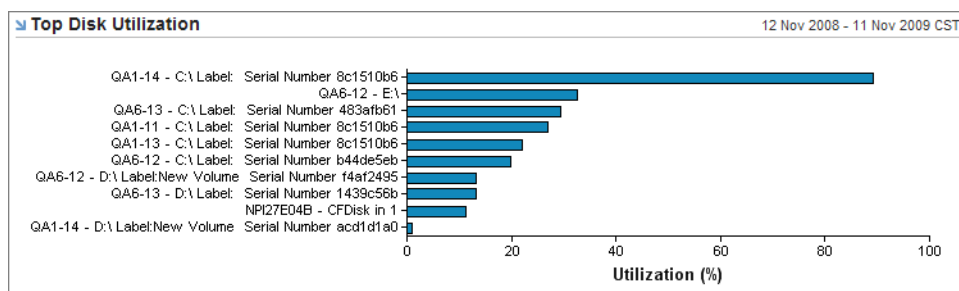
Name	Type	% Used	Used	Capacity	Fails
QA1-14 - C:\ Label: Serial Number 8c1510b6	Fixed Disk	89.21%	7.49 GB	8.40 GB	0
QA6-12 - E:\	Compact Disk	32.53%	212.22 MB	212.22 MB	0
QA6-13 - C:\ Label: Serial Number 483afb61	Fixed Disk	29.37%	9.35 GB	31.82 GB	0
QA1-11 - C:\ Label: Serial Number 8c1510b6	Fixed Disk	26.86%	9.28 GB	34.55 GB	0
QA1-13 - C:\ Label: Serial Number 8c1510b6	Fixed Disk	22.13%	7.62 GB	34.53 GB	0
QA6-12 - C:\ Label: Serial Number b44de5eb	Fixed Disk	19.85%	6.17 GB	31.08 GB	0
QA6-12 - D:\ Label: New Volume Serial Number f4a12495	Fixed Disk	13.35%	115.80 GB	867.23 GB	0
QA6-13 - D:\ Label: Serial Number 1439c56b	Fixed Disk	13.26%	114.86 GB	866.46 GB	0
NP27E04B - CFdisk in 1	Fixed Disk	11.31%	116.74 KB	1.03 MB	0
QA1-14 - D:\ Label: New Volume Serial Number acd1d1a0	Fixed Disk	0.87%	559.83 MB	64.35 GB	0

- Context: This view requires a selected reporting group, device, or server to be displayed.
- Data: The metric used to render this view is hrstorage, which corresponds to the Host Resource Storage dataset in NetVoyant. The view includes data for the following expressions:
 - Type: Type of disk storage determined by p_Type.property_value
 - % Used: Percentage calculated by dividing the amount of storage used by the storage size.
 - Used: Number of bytes used
 - Capacity: Storage size in bytes

- **Fails:** Number of storage allocation failures (requests for storage that could not be honored due to insufficient storage).
- **Styles:** This view can be displayed as a bar chart, stacked bar chart, or table.
- **Standard NetVoyant reports:** This view is included in the [Operations Summary Report](#), [Server Summary Report](#), [Device Capabilities Report](#), and [Server Capabilities Report](#).
- **Standard NetQoS Performance Center reports:** This view is included in the Enterprise Summary report and the Server Dashboard report.

Top Disk Utilization

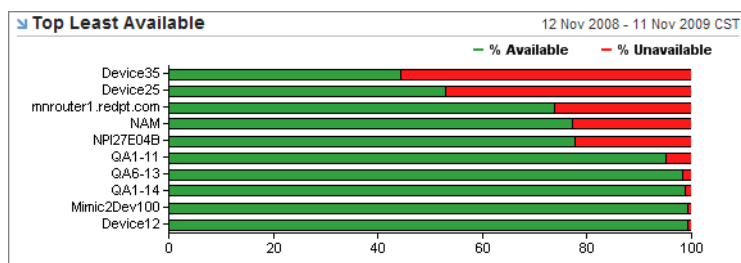
Displays the disk usage on those volumes in a reporting group or on a managed device with the highest usage during the selected period. Usage is calculated by dividing the amount of storage used by the storage size.



- **Context:** This view requires a selected reporting group, device, or server to be displayed.
- **Data:** The metric used to render this view is `hrstorage`, which corresponds to the Host Resource Storage dataset in NetVoyant.
- **Styles:** This view can be displayed as a bar chart, stacked bar chart, or table.
- **Standard NetVoyant reports:** This view is included in the [Server Summary Report](#).
- **Standard NetQoS Performance Center reports:** This view is included in the Server Summary report.

Top Least Available

Displays the availability and unavailability percentages for those devices in a reporting group that were least available during the selected period.













- **Context:** This view requires a selected reporting group to be displayed.
- **Data:** The metric used to render this view is `avail`, which corresponds to the Device Availability dataset in NetVoyant. The view includes data for the following expression:
 - **% Available:** Percentage of time that the system is up and running

- % Unavailable: Percentage calculated by subtracting the % Available value from 100
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Operations Summary Graphs Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Availability Dashboard report.

Top Least Available (Reboots)

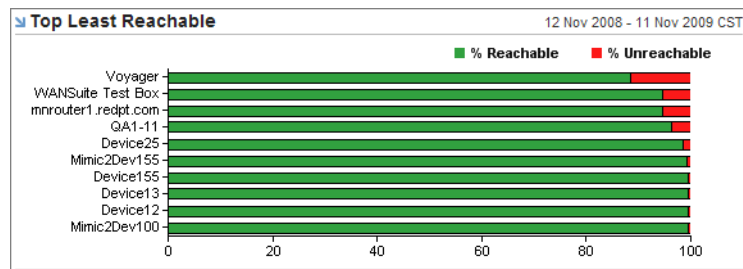
Displays availability percentages and number of reboots for those devices in a reporting group or volumes on a managed object that were least available during the selected period.

Top Least Available			12 Nov 2008 - 11 Nov 2009 CST
Name	Availability ▲	Reboots	
Device35	44.315% 	4	
Device25	52.995% 	2	
mnrouter1.redpt.com	73.664% 	1	
NAM	77.227% 	803	
NP127E04B	77.681% 	7	
QA1-11	95.010% 	10	
QA6-13	98.315% 	3	
QA1-14	98.686% 	2	
Mimic2Dev100	99.242% 	6	
Device12	99.270% 	3	

- Context: This view requires a selected reporting group or managed device to be displayed.
- Data: The metric used to render this view is avail, which corresponds to the Device Availability dataset in NetVoyant. The view includes data for the following expression:
 - Availability: Percentage of time that the system is up and running
 - Reboots: Number of system reboots
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Operations Summary Report](#), [Server Capabilities Report](#), [Device Capabilities Report](#), [Router Capabilities Report](#), and [Switch Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Issues report, Enterprise Summary report, Enterprise Dashboard report, and the Availability Dashboard report.

Top Least Reachable

Displays the overall reachability of those devices that were least reachable during the selected period.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant. The view includes data for the following expression:
 - % Reachable: Percentage of attempts that the device was reachable, which is a ping received from the device during each polling interval, for all attempts. For each polling interval, the reachability is either 100 (ping received) or 0 (ping not received).
 - % Unreachable: Value calculated by subtracting the % Reachable from 100
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Operations Summary Graphs Report](#), which is a standard NetVoyant report.
- Standard NetQoS Performance Center reports: This view is included in the Availability Dashboard report.

Top Least Reachable (Details)

Displays the overall reachability, ping latency, ICMP loss, and SNMP loss of those devices in a reporting group that were least reachable during the selected period.












Top Least Reachable					12 Nov 2008 - 11 Nov 2009 CST				
Name	Reachability ▲	Ping Latency	ICMP Loss	SNMP Loss					
Voyager	88.389%	1.7 ms	19.38%	11.74%					
WANSuite Test Box	94.719%	107.2 ms	13.50%	7.91%					
mnrouter1.redpt.com	94.727%	109.1 ms	13.71%	8.28%					
QA1-11	96.386%	0.7 ms	4.06%	3.67%					
Device25	98.485%	0.1 ms	9.38%	2.49%					
Mimic2Dev155	99.315%	1.0 ms	6.32%	2.07%					
Device155	99.409%	1.1 ms	11.95%	0.43%					
Device13	99.494%	0.8 ms	0.51%	0.51%					
Device12	99.494%	0.7 ms	0.53%	0.51%					
Mimic2Dev100	99.506%	0.7 ms	0.53%	0.56%					
<input type="text"/>					Show Top: 10 ▼				

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant. The view includes data for the following expression:

- **Reachability:** Percentage of attempts that the device was reachable, which is a ping received from the device during each polling interval, for all attempts. For each polling interval, the reachability is either 100 (ping received) or 0 (ping not received).
- **Ping Latency:** Average round trip time delay
- **ICMP Loss:** Percentage of pings received to those sent
- **SNMP Loss:** Percentage of SNMP packets received to those sent
- **Styles:** This view can be displayed as a bar chart, stacked bar chart, or table.
- **Standard NetVoyant reports:** This view is included in the [Operations Summary Report](#), which is a standard NetVoyant report.
- **Standard NetQoS Performance Center reports:** This view is included in the Top Issues report, Enterprise Summary report, Enterprise Dashboard report, and Availability Dashboard report.

Top Memory Utilization

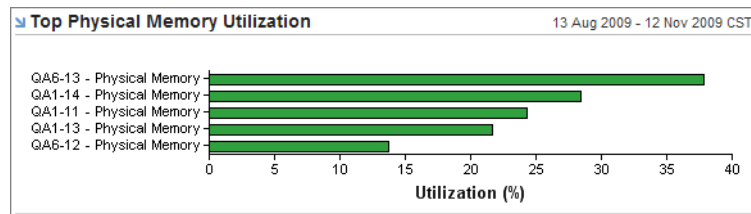
Displays the storage usage for both physical memory and virtual memory on those devices in a reporting group or volumes in the managed object with the most usage during the selected period.

Top Memory Utilization						Thu 29 Oct 2009 - Wed 4 Nov 2009 EST	
Name	Type	% Used ▾	Used	Capacity	Fails		
DELL33A7A3 - RAM Memory	Physical Memory	100.00% 	134.22 MB	134.22 MB	0		
NCCM51P.netqos.local - Physical RAM	Physical Memory	99.06% 	2.08 GB	2.10 GB	0		
NCCM70P.netqos.local - Physical RAM	Physical Memory	68.02% 	1.44 GB	2.12 GB	0		
NCCM61P.netqos.local - Physical RAM	Physical Memory	50.03% 	1.05 GB	2.10 GB	0		
NCCM42P - Virtual Memory	Virtual Memory	35.05% 	1.45 GB	4.13 GB	0		
nclabpcon01 - Physical Memory	Physical Memory	17.44% 	373.63 MB	2.14 GB	0		
SMALLSITE - Physical Memory	Physical Memory	15.18% 	325.72 MB	2.15 GB	0		
NCCM61P.netqos.local - Virtual Memory	Virtual Memory	3.62% 	76.00 MB	2.10 GB	0		
nclabpcon01 - Virtual Memory	Virtual Memory	3.35% 	210.59 MB	6.28 GB	0		
SMALLSITE - Virtual Memory	Virtual Memory	2.31% 	144.90 MB	6.28 GB	0		
<input type="text"/> 						Show Top: 10 ▾	

- **Context:** This view requires a selected reporting group, device, or server to be displayed.
- **Data:** The metric used to render this view is hrstorage, which corresponds to the Host Resource Storage dataset in NetVoyant. The view includes data for the following expressions:
 - **Type:** Type of disk storage determined by p_Type.property_value
 - **% Used:** Percentage calculated by dividing the number of bytes used by the storage size.
 - **Used:** Number of bytes used
 - **Capacity:** Storage size in bytes
 - **Fails:** Number of storage allocation failures (requests for storage that could not be honored due to insufficient storage).
- **Styles:** This view can be displayed as a bar chart, stacked bar chart, or table.
- **Standard NetVoyant reports:** This view is included in the [Operations Summary Report](#) and [Server Capabilities Report](#).
- **Standard NetQoS Performance Center reports:** This view is included in the Enterprise Summary report and the Server Overview report and the Server Dashboard report.

Top Physical Memory Utilization

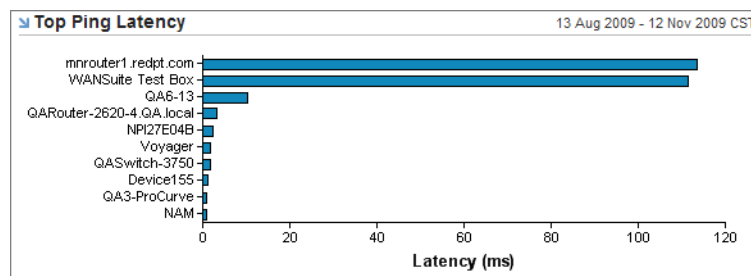
Displays the physical memory usage percentage on those devices in a reporting group or volumes on a managed object with the most usage during the selected period. The usage percentage is calculated by dividing the amount of physical memory used by the total capacity.



- Context: This view requires a selected reporting group, device, or server to be displayed.
- Data: The metric used to render this view is hrstorage, which corresponds to the Host Resource Storage dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Ping Latency

Displays the overall ping latency (round-trip delay in milliseconds) for those devices in a reporting group with the highest ping latency during the selected period.

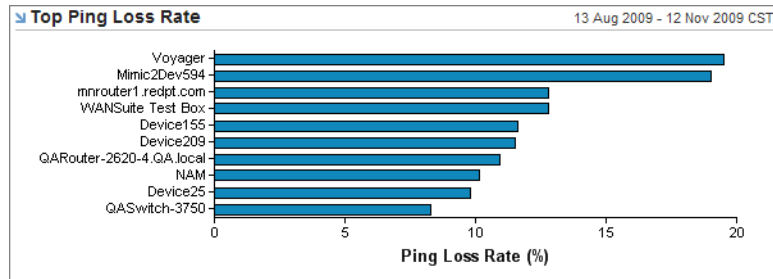


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Ping Loss Rate

Displays the overall ping loss rate (pings received/pings sent) for those devices in a reporting group with the highest ping loss rates during the selected period.

The ping loss rate can be used as an indicator that there is congestion on the network that the device is approaching a loss threshold.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Projections - Device CPU Utilization

Displays 30, 60, and 90-day projections for CPU usage for those devices in a reporting group with the highest CPU usage 90-day growth rates.











Top Projections - Device CPU Utilization						13 Aug 2009 - 12 Nov 2009 CST
Name	Metric	Last 90 Days	30 Days	60 Days	90 Days	
QA6-12 - Unknown Processor Type	Processor Load	84.80% <div><div></div></div>	377.24%	463.95%	550.66%	
QA6-12 - Unknown Processor Type	Processor Load	84.06% <div><div></div></div>	342.07%	418.57%	495.07%	
QA1-13 - Intel	Processor Load	44.80% <div><div></div></div>	104.81%	128.16%	151.50%	
QA6-13 - Intel	Processor Load	26.88% <div><div></div></div>	0.00%	0.00%	0.00%	
QA6-13 - Intel	Processor Load	23.65% <div><div></div></div>	0.00%	0.00%	0.00%	
QA1-11 - Intel	Processor Load	11.94% <div><div></div></div>	0.00%	0.00%	0.00%	
QA1-11 - Intel	Processor Load	5.89% <div><div></div></div>	20.11%	25.58%	31.05%	
QA1-11 - Intel	Processor Load	3.90% <div><div></div></div>	16.86%	21.38%	25.91%	
QA1-13 - Intel	Processor Load	3.62% <div><div></div></div>	0.00%	0.00%	0.00%	
QA1-14 - Intel	Processor Load	0.10% <div><div></div></div>	0.06%	0.04%	0.02%	

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is hrprocessor, which corresponds to the Host Resource Processor Table dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Processor Load
 - Last 90 Days: The CPU usage growth rate calculated over the preceding 90 days
 - 30 Days: The projected CPU usage 30 days from now
 - 60 Days: The projected CPU usage 60 days from now

- 90 Days: The projected CPU usage 90 days from now
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Projections Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Projections report.

Top Projections - Device Memory Utilization

Displays 30, 60, and 90-day projections for memory usage for those device memory resources in a reporting group with the highest memory usage 90-day growth rates.

Top Projections - Device Memory Utilization					13 Aug 2009 - 12 Nov 2009 CST
Name	Metric	Last 90 Days ▼	30 Days	60 Days	90 Days
QA1-14 - C:\ Label: Serial Number 8c1510b6	Percent Used	89.25% 	94.48%	96.51%	98.55%
QA6-13 - Physical Memory	Percent Used	37.84% 	0.00%	0.00%	0.00%
QA6-12 - E:\	Percent Used	32.53% 	0.00%	0.00%	0.00%
QA6-13 - C:\ Label: Serial Number 483afb61	Percent Used	29.37% 	27.50%	26.97%	26.44%
QA1-14 - Physical Memory	Percent Used	28.63% 	35.37%	37.99%	40.60%
QA1-11 - C:\ Label: Serial Number 8c1510b6	Percent Used	27.06% 	30.94%	32.43%	33.93%
QA1-11 - Physical Memory	Percent Used	24.45% 	35.01%	39.08%	43.15%
QA1-13 - C:\ Label: Serial Number 8c1510b6	Percent Used	22.27% 	27.44%	29.45%	31.46%
QA1-13 - Physical Memory	Percent Used	21.86% 	30.60%	34.00%	37.40%
QA6-12 - C:\ Label: Serial Number b44de5eb	Percent Used	19.85% 	25.18%	26.76%	28.34%

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is hrstorage, which corresponds to the Host Resource Storage dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Percent Used
 - Last 90 Days: The growth in usage percentage rate calculated over the preceding 90 days
 - 30 Days: The projected usage percentage increase 30 days from now
 - 60 Days: The projected usage percentage increase 60 days from now
 - 90 Days: The projected usage percentage increase 90 days from now
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Projections Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Projections report.

Top Projections - Latency

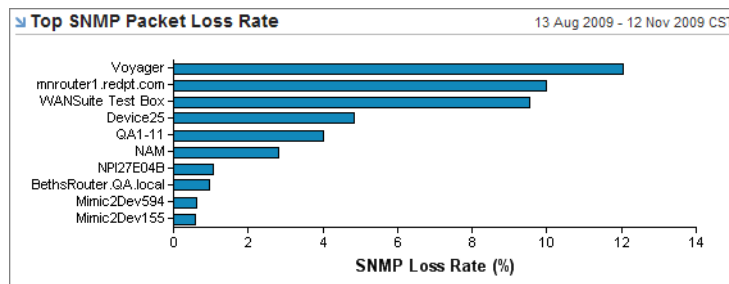
Displays 30, 60, and 90-day projections for average latency for those devices in a reporting group with the highest latency 90-day growth rates.

Top Projections - Latency					5 Aug 2009 - 4 Nov 2009 CST
Name	Metric	Last 90 Days ▼	30 Days	60 Days	90 Days
mnrouter1.redpt.com	Average Latency (ICMP)	110.0 ms	139.5 ms	149.9 ms	160.2 ms
WANSuite Test Box	Average Latency (ICMP)	108.1 ms	136.4 ms	146.4 ms	156.3 ms
QA6-13	Average Latency (ICMP)	10.4 ms	0.0 ms	0.0 ms	0.0 ms
QARouter-2620-4.QA.local	Average Latency (ICMP)	3.2 ms	4.4 ms	4.9 ms	5.4 ms
NPI27E04B	Average Latency (ICMP)	2.3 ms	3.3 ms	3.6 ms	3.9 ms
QASwitch-3750	Average Latency (ICMP)	1.8 ms	0.8 ms	0.4 ms	0.0 ms
Voyager	Average Latency (ICMP)	1.7 ms	1.0 ms	0.7 ms	0.5 ms
Device155	Average Latency (ICMP)	1.1 ms	0.2 ms	0.0 ms	0.0 ms
NAM	Average Latency (ICMP)	1.1 ms	0.2 ms	0.0 ms	0.0 ms
QA3-ProCurve	Average Latency (ICMP)	1.0 ms	0.5 ms	0.3 ms	0.1 ms

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Average Latency (ICMP) - round trip delay
 - Last 90 Days: The latency growth rate calculated over the preceding 90 days
 - 30 Days: The projected latency increase 30 days from now
 - 60 Days: The projected latency increase 60 days from now
 - 90 Days: The projected latency increase 90 days from now
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Projections Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Projections report.

Top SNMP Packet Loss Rate

Displays the overall SNMP packet loss rate (packets received/packets sent) for those devices in a reporting group with the highest SNMP packet loss rates during the selected period.

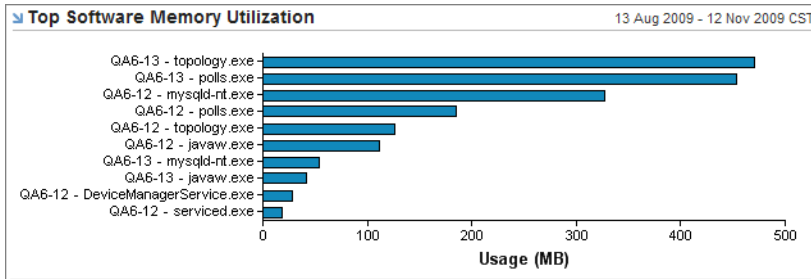


- Context: This view requires a selected reporting group to be displayed.

- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Software Memory Utilization

Displays the application memory usage for devices in a reporting group with the most usage per application during the selected period.



- Context: This view requires a selected reporting group, device, or server to be displayed.
- Data: The metric used to render this view is hrswrun, which corresponds to the Host Resource Software Performance dataset in NetVoyant. The view includes data for the following expression:
 - Memory Utilization: Total amount of real system memory allocated to a single application (process) in megabytes.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Threshold Violations - Device CPU

Displays the number and duration of threshold events that occurred for CPU usage values for those devices in a reporting group with the highest duration values during the selected period. Those usage values that exceeded the threshold when averaged over the reporting period display in red.

The view also displays the number of unique threshold crossing events (Number of Unique Violations) observed during the selected period.

13 Nov 2009 13:11 - 14:11 CST			
Name	CPU Util	Violation Duration (%)	Number of Unique Violations
QA1-13::intel	57.83%	100.00%	12
QA1-13::intel	1.92%	100.00%	24

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is hrprocessor, which corresponds to the Host Resource Processor Table dataset in NetVoyant. The view includes data for the following expressions:
 - CPU Util: Average percentage of time that the processor was not idle.

- Violation Duration (%): The total threshold event duration for the reporting period, as a percentage
- Number of Unique Violations: Number of threshold events
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Threshold Violations Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Threshold Violations report and the Alerts and Violations report.

Top Threshold Violations - Device Storage

Displays the number and duration of threshold events that have occurred for device storage values for those devices in a reporting group with the highest duration values during the selected period. Those storage usage values that exceeded the threshold when averaged over the reporting period display in red.

The view also displays the number of unique threshold crossing events (Number of Unique Violations) observed during the selected period.

Name	% Used	Capacity	Fails	Violation Duration (%)	Number of Unique Violations
PeopleSoft Web Front End Server 1 - Disk 1	61.73%	1.02 TB	0	58.81%	1
US Web Proxy Server - Physical Memory	64.03%	2.05 GB	0	55.62%	16
portal07.c22.net - Disk 0	58.76%	1.02 TB	0	55.07%	11
SAP DB 2 - Disk 1	60.88%	1.02 TB	0	54.56%	3
SAP DB 1 - Disk 2	59.18%	1.02 TB	0	53.38%	23
Finance - OracleDatabase3 Tier 3 - Physical Memory	51.85%	2.05 GB	0	52.34%	8
Finance - Web3 Tier 1 - Disk 1	52.71%	1.02 TB	0	50.96%	13
PeopleSoft Web Front End Server 2 - Physical Memory	64.00%	2.05 GB	0	50.84%	16
exchange07.c22.net - Disk 2	64.77%	1.02 TB	0	50.38%	21
sales82.c22.net - Disk 0	53.26%	1.02 TB	0	50.25%	10

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is hrstorage, which corresponds to the Host Resource Storage dataset in NetVoyant. The view includes data for the following expressions:
 - % Used: Percentage calculated by dividing the amount of storage used by the storage size
 - Capacity: Total storage size in bytes
 - Fails: Number of storage allocation failures (requests for storage that could not be honored due to insufficient storage)
 - Violation Duration (%): The total threshold event duration for the reporting period, as a percentage
 - Number of Unique Violations: Number of threshold events
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Threshold Violations Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Threshold Violations report and the Alerts and Violations report.

Top Threshold Violations - Latency

Displays the number and duration of threshold events that occurred for latency values for those devices in a reporting group with the highest duration values during the selected period. Those latency values that exceeded the threshold when averaged over the reporting period display in red.

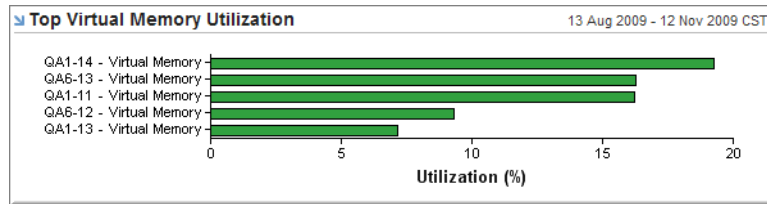
The view also displays the number of unique threshold crossing events (Number of Unique Violations) observed during the selected period.

Name	Metric	Normal	Actual	Deviation (%)
nclabpcon02	Average Latency (ICMP)	0.1 ms	0.0 ms	-97.0
NCCM42P	Average Latency (ICMP)	0.1 ms	0.0 ms	-94.3
nclabpcon01	Average Latency (ICMP)	0.0 ms	0.0 ms	-66.2
SMALLSITE	Average Latency (ICMP)	0.6 ms	0.2 ms	-60.9
NCCM70P.netqos.local	Average Latency (ICMP)	0.8 ms	0.3 ms	-58.8
NetQoS-S8300C	Average Latency (ICMP)	0.8 ms	0.4 ms	-54.2
cmsim	Average Latency (ICMP)	1.1 ms	0.6 ms	-46.2
raikoNG.netqos.local	Average Latency (ICMP)	0.8 ms	0.4 ms	-45.6
NetQoS-S8300C	Average Latency (ICMP)	1.0 ms	0.6 ms	-41.5
nclab_rtr_01	Average Latency (ICMP)	1.1 ms	0.7 ms	-40.3

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is reach, which corresponds to the Reachability Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Min Latency: The minimum latency (round trip delay) value in milliseconds
 - Avg Latency: The average latency (round trip delay) value in milliseconds
 - Max Latency: The maximum latency (round trip delay) value in milliseconds
 - Violation Duration (%): The total threshold event duration for the reporting period, as a percentage
 - Number of Unique Violations: Number of threshold events
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Virtual Memory Utilization

Displays the virtual memory usage on those devices in a reporting group with the most usage during the selected period. The usage percentage is calculated by dividing the amount of virtual memory used by the total size



- Context: This view requires a selected reporting group, device, or server to be displayed.
- Data: The metric used to render this view is hrstorage, which corresponds to the Host Resource Storage dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Server Overview report.

ETHERNET VIEWS

The following topics describe the views related to Ethernet interfaces that you can add to your report pages. This information includes the view styles possible for each view, the metric used to render the view, and the standard report pages that include the view.

Ethernet views are designed to provide status and performance information about individual ethernet interfaces and aggregations of reporting groups.

Closest to Threshold - Ethernet Utilization

Displays a table of Ethernet interfaces that have average usage closest to the usage threshold. This view also displays the projected number of days until the usage for each interface crosses the threshold.

Closest to Threshold views calculate the trend for an expression. When that calculation projects that the value for the expression will reach or exceed threshold within one year, the data is represented in the view. For example, when latency is on an incline and thus the baseline is also on an incline, a projection calculation predicts when the device will meet or exceed the threshold.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant. The view includes data for the following:
 - Metric: Description of the usage calculation
 - Average: Average usage as a percentage
 - Threshold: The threshold for the usage expression in NetVoyant

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- Days to Threshold: The projected number of days until the value for the expression exceeds the threshold
 - Styles: This view can be displayed as a table only.
 - Standard NetVoyant reports: This view is included in the [Top Closest to Threshold Report](#).

Closest to Threshold - Ethernet Volume

Displays a table of those Ethernet interfaces that have average volume closest to the volume threshold. This view also displays the projected number of days until the volume for each interface crosses the threshold.

Closest to Threshold views calculate the trend for an expression. When that calculation projects that the value for the expression will reach or exceed threshold within one year, the data is represented in the view. For example, when latency and the baseline are on an incline, a projection calculation predicts when the device will meet or exceed the threshold.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `etherstats`, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant. The view includes data for the following:
 - Metric: Description of the volume calculation
 - Average: Average volume as a percentage
 - Threshold: The threshold for the volume expression in NetVoyant
 - Days to Threshold: The projected number of days until the value for the expression exceeds the threshold
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Closest to Threshold Report](#).

Error Distribution

Displays the number of error types for an ethernet interface during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

- Context: This view requires a selected ethernet interface to be displayed.
- Data: The metric used to render this view is `etherstats`, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Over Sized: Number of packets received that were longer than 1518 octets (excluding framing bits, but including FCS octets) and were otherwise well formed.
 - Under Sized: Number of packets received that were less than 64 octets long (excluding framing bits, but including FCS octets) and were otherwise well formed.
 - Dropped: Number of events in which packets were dropped by the probe due to lack of resources. This number is not necessarily the number of packets dropped. It is the number of times this condition was detected.

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- **CRC Align:** Number of packets received that had a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets, inclusive, but had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets
 - **Fragments:** Number of packets received that were less than 64 octets in length (excluding framing bits but including FCS octets) and had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets
 - **Jabbers:** Number of packets received that were longer than 1518 octets (excluding framing bits, but including FCS octets), and had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets
 - **Collisions:** Best estimate of the number of collisions on this Ethernet segment. The value depends on the location of the RMON probe.
 - **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
 - **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Error Rate Distribution

Displays the percentages of error types for an ethernet interface during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

- **Context:** This view requires a selected ethernet interface to be displayed.
- **Data:** The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - **Over Sized:** Percentage of packets received that were longer than 1518 octets (excluding framing bits, but including FCS octets) and were otherwise well formed.
 - **Under Sized:** Percentage of packets received that were less than 64 octets long (excluding framing bits, but including FCS octets) and were otherwise well formed.
 - **Dropped:** Percentage of packets/events in which packets were dropped by the probe due to lack of resources. This number does not necessarily represent the percentage of packets dropped. It is the number of times this condition was detected over the total number of packets.
 - **CRC Align:** Percentage of packets received that had a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets, inclusive, but had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets
 - **Fragments:** Percentage of packets received that were less than 64 octets in length (excluding framing bits but including FCS octets) and had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets
 - **Jabbers:** Percentage of packets received that were longer than 1518 octets (excluding framing bits, but including FCS octets), and had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets

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- Collisions: Percentage calculated using the best estimate of the total number of collisions on this Ethernet segment over the total number of packets. The value depends on the location of the RMON probe.
 - Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
 - Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Ethernet Error Trend Detail

Displays the percentage of errors occurring on the ethernet interface over the selected period.

- Context: This view requires a selected ethernet interface to be displayed.
- Data: The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Ethernet Errors Group Comparison

Compares the number of ethernet errors, by sub-group, on the ethernet interfaces in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

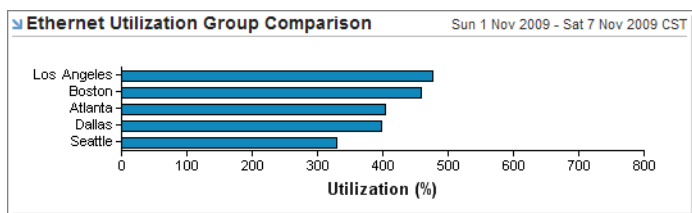
- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [LAN Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the LAN Group Comparison report.

Ethernet Utilization Group Comparison

Compares the ethernet usage, by sub-group, on the ethernet interfaces in a reporting group during the selected period.

The average ethernet usage value is calculated by sampling before and after a common interval, as follows: $\text{Pkts} * (9.6 + 6.4) + (\text{Octets} * .8) * 800.00 / \text{duration} * \text{interface speed}$.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

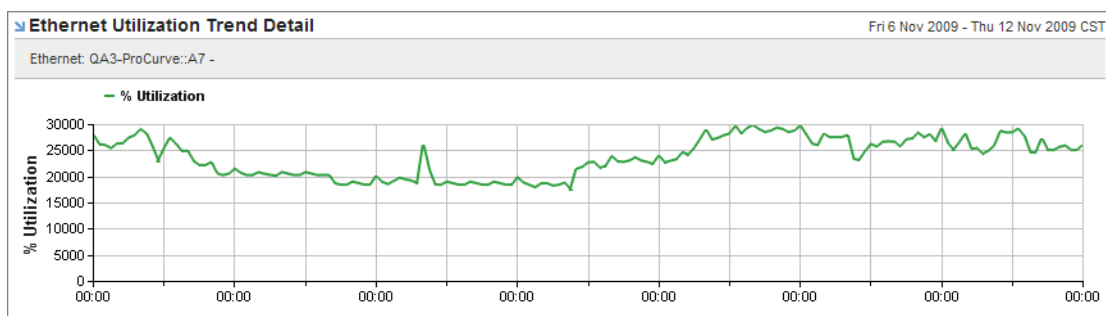


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [LAN Group Comparison Report](#) and [Device Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the LAN Group Comparison report.

Ethernet Utilization Trend Detail

Displays ethernet usage values on an ethernet interface over the selected period. Usage is calculated by sampling before and after a common interval, as follows:

$\text{Pkts} * (9.6 + 6.4) + (\text{Octets} * .8) * 800.00 / \text{duration} * \text{interface speed}$.

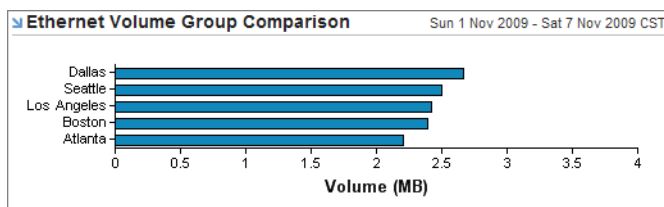


- Context: This view requires a selected ethernet interface to be displayed.
- Data: The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the Ethernet Performance report.

Ethernet Volume Group Comparison

Compares the ethernet volume, by sub-group, on the ethernet interfaces in a reporting group during the selected period. The total volume is calculated by sampling before and after a common interval, as follows: $\text{Pkts} * (9.6 + 6.4) + (\text{Octets} * .8) * 800.00 / \text{duration}$.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

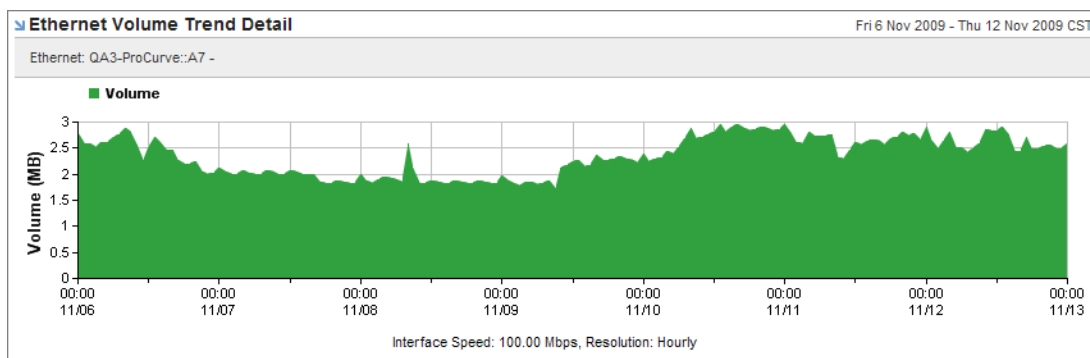


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [LAN Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the LAN Group Comparison report.

Ethernet Volume Trend Detail

Displays the total volume for an ethernet interface over the selected period. Volume is calculated by sampling before and after a common interval, as follows:

$\text{Pkts} * (9.6 + 6.4) + (\text{Octets} * .8) * 800.00 / \text{duration}$.

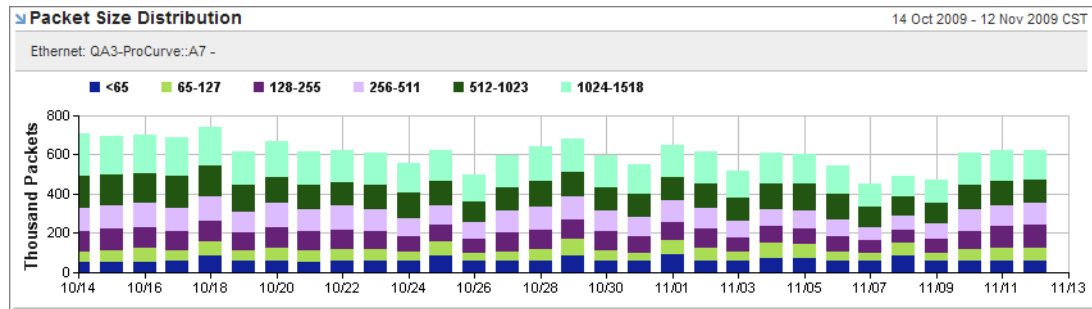


- Context: This view requires a selected ethernet interface to be displayed.
- Data: The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Packet Size Distribution

Displays the number of packets that fall within the defined size ranges for an ethernet interface during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

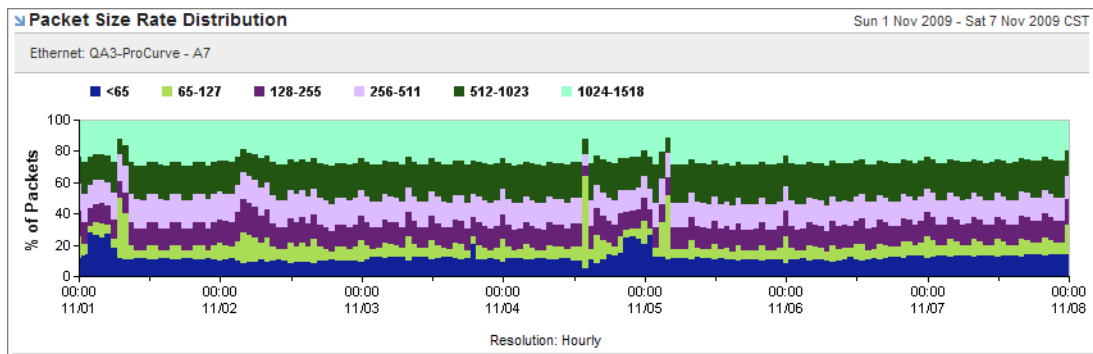


- Context: This view requires a selected ethernet interface to be displayed.
- Data: The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant. The view includes data for the following expression:
 - <65: Number of packets (including bad packets) received that were 64 octets in length (excluding framing bits but including FCS octets).
 - 65-127: Number of packets (including bad packets) received that were between 65 and 127 octets in length inclusive (excluding framing bits but including FCS octets).
 - 128-255: Number of packets (including bad packets) received that were between 128 and 255 octets in length inclusive (excluding framing bits but including FCS octets).
 - 256-511: Number of packets (including bad packets) received that were between 256 and 511 octets in length inclusive (excluding framing bits but including FCS octets).
 - 512-1023: Number of packets (including bad packets) received that were between 512 and 1023 octets in length inclusive (excluding framing bits but including FCS octets).
 - 1024-1518: Number of packets (including bad packets) received that were between 1024 and 1518 octets in length inclusive (excluding framing bits but including FCS octets).
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the Ethernet Performance report.

Packet Size Rate Distribution

Displays the percentages of packet sizes within the defined size ranges for an ethernet interface during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

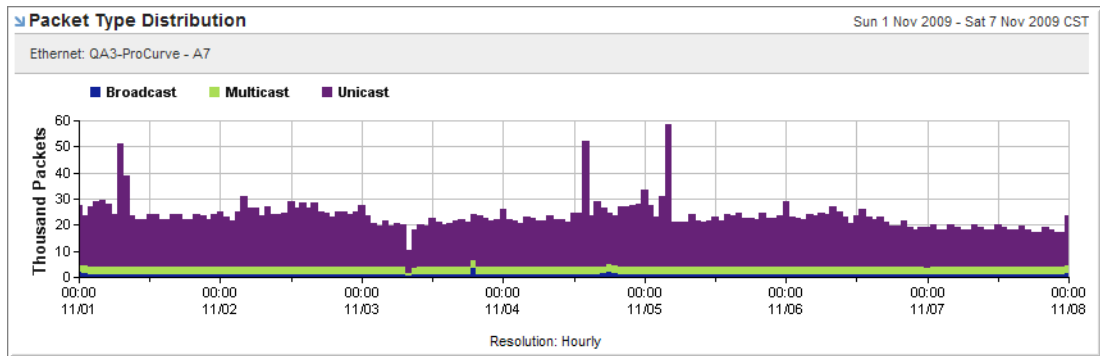


- Context: This view requires a selected ethernet interface to be displayed.
- Data: The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant. The view includes data for the following expression:
 - <65: Percentage of packets (including bad packets) received that were 64 octets in length (excluding framing bits but including FCS octets).
 - 65-127: Percentage of packets (including bad packets) received that were between 65 and 127 octets in length inclusive (excluding framing bits but including FCS octets).
 - 128-255: Percentage of packets (including bad packets) received that were between 128 and 255 octets in length inclusive (excluding framing bits but including FCS octets).
 - 256-511: Percentage of packets (including bad packets) received that were between 256 and 511 octets in length inclusive (excluding framing bits but including FCS octets).
 - 512-1023: Percentage of packets (including bad packets) received that were between 512 and 1023 octets in length inclusive (excluding framing bits but including FCS octets).
 - 1024-1518: Percentage of packets (including bad packets) received that were between 1024 and 1518 octets in length inclusive (excluding framing bits but including FCS octets).
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Packet Type Distribution

Displays the number of packet types for an ethernet interface during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

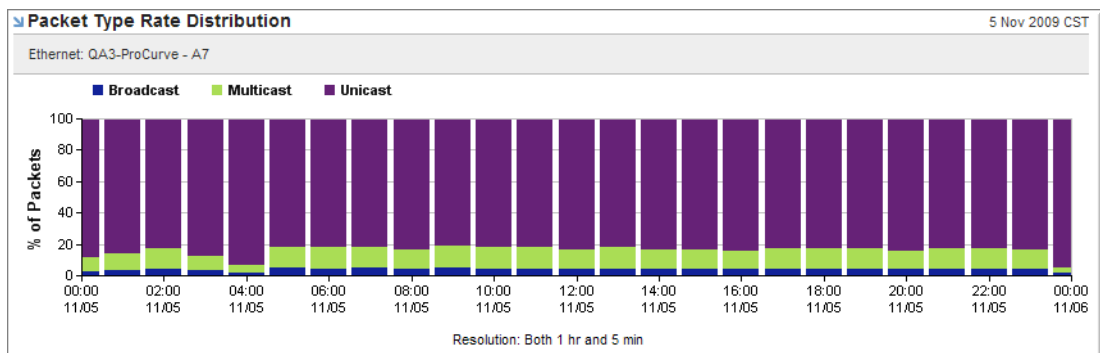


- Context: This view requires a selected ethernet interface to be displayed.
- Data: The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant. The view includes data for the following expression:
 - Broadcast: Number of good packets received that were directed to the broadcast address
 - Multicast: Number of good packets received that were directed to a multicast address
 - Unicast: Number of all good packets received, excluding those directed to the broadcast and multicast addresses
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Packet Type Rate Distribution

Displays the percentage of packet types for an ethernet interface during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.










- Context: This view requires a selected ethernet interface to be displayed.
- Data: The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Broadcast: Percentage of good packets received that were directed to the broadcast address
 - Multicast: Percentage of good packets received that were directed to a multicast address

- Unicast: Percentage of all good packets received, excluding those that were directed to both the broadcast and multicast addresses
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Ethernet

Displays the ethernet usage, number of errors, volume, and number of packets for those interfaces in a reporting group with the highest ethernet usage during the selected period.

Top Ethernet					14 Oct 2009 - 12 Nov 2009 CST
Name	Util ▼	Errors	Volume	Packets	
QA3-ProCurve - A7	27,952.50% 	0.00%	2.80 MB	13.12 M	
QA3-ProCurve - C2	593.90% 	0.00%	88.40 KB	1.90 M	
QA3-ProCurve - C1	593.90% 	0.00%	88.40 KB	1.90 M	
QA3-ProCurve - B14	0.00% 	0.00%	0 Bytes	1	
QA3-ProCurve - B13	0.00% 	0.00%	0 Bytes	1	
QA3-ProCurve - B12	0.00% 	0.00%	0 Bytes	1	
<input type="text"/> 					Show Top: 10 ▼

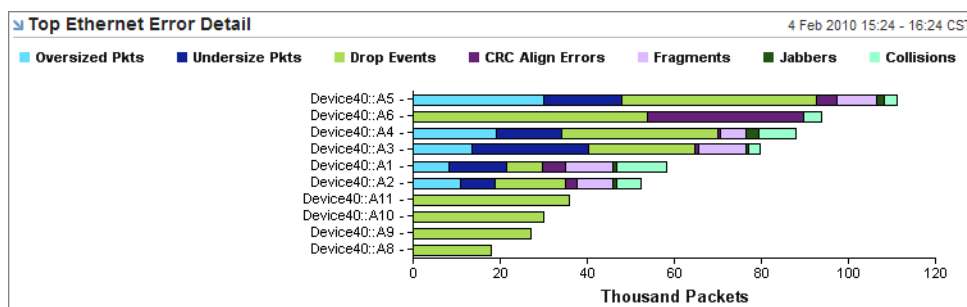
- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant. The view includes data for the following expression:
 - Util: Usage calculated by sampling before and after a common interval, as follows:

$$\text{Pkts} * (9.6 + 6.4) + (\text{Octets} * .8) * 800.00 / \text{duration} * \text{interface speed.}$$
 - Errors: Percentage of errors (all error types) over all packets
 - Volume: Volume in bytes calculated by sampling before and after a common interval, as follows:

$$\text{Pkts} * (9.6 + 6.4) + (\text{Octets} * .8) * 800.00 / \text{duration}$$
 - Packets: Number of all packets
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Switch Capabilities Report](#).

Top Ethernet Error Detail

Displays the number of each ethernet error type on those ethernet interfaces in a reporting group that have the most total errors.



-
- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
 - Data: The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Over Sized: Number of packets received that were longer than 1518 octets (excluding framing bits, but including FCS octets) and were otherwise well formed.
 - Under Sized: Number of packets received that were less than 64 octets long (excluding framing bits, but including FCS octets) and were otherwise well formed.
 - Dropped: Number of events in which packets were dropped by the probe due to lack of resources. This number is not necessarily the number of packets dropped. It is just the number of times this condition was detected.
 - CRC Align: Number of packets received that had a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets, inclusive, but had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets
 - Fragments: Number of packets received that were less than 64 octets in length (excluding framing bits but including FCS octets) and had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets
 - Jabbers: Number of packets received that were longer than 1518 octets (excluding framing bits, but including FCS octets), and had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets
 - Collisions: Best estimate of the total number of collisions on this Ethernet segment. The value depends on the location of the RMON probe.
 - Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
 - Standard NetVoyant reports: This view is included in the [LAN Summary Report](#).
 - Standard NetQoS Performance Center reports: This view is included in the LAN Summary report.

Top Ethernet Error Rates

Displays the ethernet error percentage (total of all types) on those ethernet interfaces in a reporting group that have the highest error percentage.

- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.







Top Ethernet Utilization

Displays the overall usage for those ethernet interfaces in a reporting group with the highest usage. Usage is calculated by sampling before and after a common interval, as follows:
$$\text{Pkts} * (9.6 + 6.4) + (\text{Octets} * .8) * 800.00 / \text{duration} * \text{interface speed}.$$

- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The metric used to render this view is `etherstats`, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant. The view includes data for the following expression:
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Operations Summary Report](#) and [Router Capabilities Report](#).

Top Projections - Ethernet Utilization

Displays 30, 60, and 90-day projections for usage for those ethernet interfaces in a reporting group with the highest usage 90-day growth rates.

Top Projections - Ethernet Utilization						4 Nov 2009 - 3 Feb 2010 CST
Name	Metric	Last 90 Days ▼	30 Days	60 Days	90 Days	
QA3-ProCurve::A7 -	segment utilization	13,112.58% 	0.00%	0.00%	0.00%	
QA3-ProCurve::C1 -	segment utilization	463.70% 	0.00%	0.00%	0.00%	
QA3-ProCurve::C2 -	segment utilization	463.70% 	0.00%	0.00%	0.00%	
QA3-ProCurve::B9 -	segment utilization	0.00% 	0.00%	0.00%	0.00%	
QA3-ProCurve::B13 -	segment utilization	0.00% 	0.00%	0.00%	0.00%	
QA3-ProCurve::B12 -	segment utilization	0.00% 	0.00%	0.00%	0.00%	
<input type="text"/>						Show Top: 10 ▼

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `etherstats`, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant. The view includes data for the following expression:
 - Metric: Average ethernet segment usage
 - Last 90 Days: The usage growth rate calculated over the preceding 90 days
 - 30 Days: The projected usage increase 30 days from now
 - 60 Days: The projected usage increase 60 days from now
 - 90 Days: The projected usage increase 90 days from now
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Projections Report](#).

Top Projections - Ethernet Volume

Displays 30, 60, and 90-day projections for volume for those ethernet interfaces in a reporting group with the highest volume 90-day growth rates.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `etherstats`, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant. The view includes data for the following expressions:

- Metric: Average ethernet volume
- Last 90 Days: The volume growth rate calculated over the preceding 90 days
- 30 Days: The projected volume increase 30 days from now
- 60 Days: The projected volume increase 60 days from now
- 90 Days: The projected volume increase 90 days from now
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Projections Report](#).

Top Threshold Violations - Ethernet

Displays the maximum usage, volume and error rate for those interfaces in a reporting group with the highest duration values for threshold events during the selected period. Those values that exceeded the threshold display in red.

The view also displays the number of unique threshold crossing events (Number of Unique Violations) observed during the selected period.

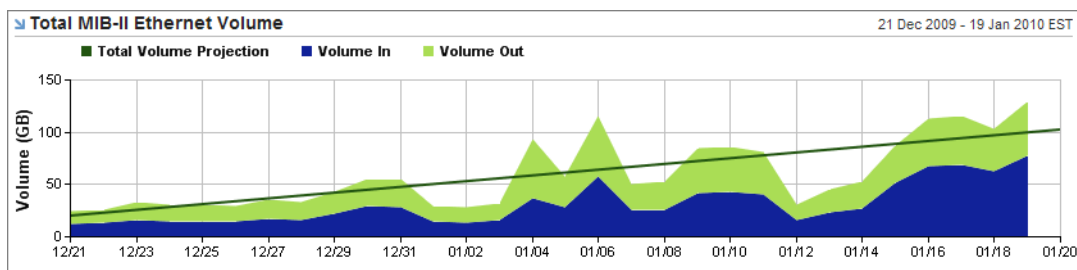
Name	Utilization	Volume	Errors	Violation Duration (%) ▼	Number of Unique Violations
QA3-ProCurve::C2 -	1287.43	128743.00	0.00	100.00%	12
QA3-ProCurve::C1 -	1287.43	128743.00	0.00	100.00%	12
Device40::A4 -	3209.39	320939.00	588.61	33.33%	04
Device40::A5 -	27295.40	272954.00	931.11	33.33%	04
Device40::A6 -	1925.12	19251.20	0.00	33.33%	04
Device40::A7 -	1016.43	101643.00	214.85	33.33%	04
Device40::A8 -	3209.39	32093.90	0.00	33.33%	04
Device40::C1 -	80.81	80807.50	0.00	33.33%	04
Device40::C2 -	809.54	80953.60	0.00	33.33%	04

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is etherstats, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization: The maximum observed usage
 - Volume: The maximum observed volume
 - Errors: The maximum observed error rate
 - Violation Duration (%): The threshold event duration for the reporting period, as a percentage
 - Number of Unique Violations: Number of threshold events
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Total MIB-II Ethernet Volume Group Comparison

Displays the inbound and outbound volume, by sub-group, for the ethernet interfaces in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expression:
 - Volume In: Total number of inbound gigabytes
 - Volume Out: Total number of outbound gigabytes
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [LAN Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the LAN Group Comparison report.

FRAME RELAY VIEWS

The following topics describe the views related to frame relay circuits that you can add to your report pages. This information includes the view styles possible for each view, the metric used to render the view, and the standard report pages that include the view.

Frame relay views are designed to provide status and performance information about individual frame relay circuits and aggregations of reporting groups.

95th Percentile Frame Relay Utilization Scorecard

Displays an overview scorecard for the 95th percentile frame relay usage across multiple groups or subgroups. You can select a goal range for the values to determine how the values in the scorecard are displayed.

When set to a 95th percentile (default), this is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.

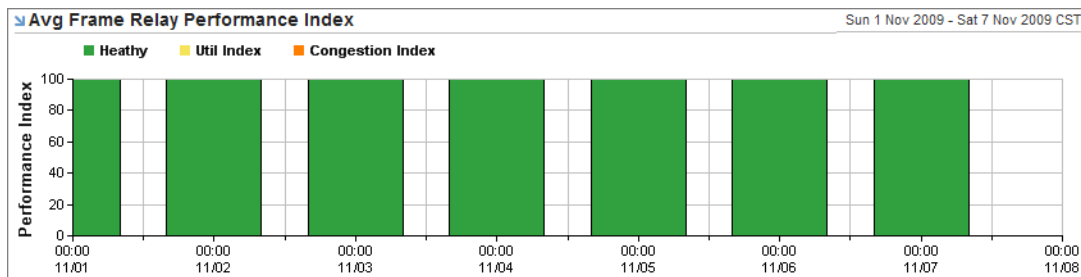
Scorecard views display monthly performance data for the previous six month or seven week period by sub-group, for a group. Scorecards are high-level indicators of whether or not measured resources are meeting service-level goals. These views incorporate check marks and exclamation points as visual indicators to enhance quick understanding.

95th Percentile Frame Relay Utilization Scorecard									
Fri 6 Nov 2009 - Thu 12 Nov 2009 CST									
Group ▲	Target	Sep 27	Oct 4	Oct 11	Oct 18	Oct 25	Nov 1	Nov 8	Average
- Routers	<= 90.00	✓ 8.7	✓ 8.7	✓ 8.7	✓ 7.8	✓ 7.8	✓ 7.8	✓ 7.8	✓ 7.3
Midwest	<= 90.00	--	--	--	--	--	--	--	--
Northeast	<= 90.00	✓ 8.7	✓ 8.7	✓ 8.7	✓ 8.7	✓ 8.7	✓ 8.7	✓ 8.7	✓ 8.7
Northwest	<= 90.00	--	--	--	--	--	--	--	--
Southeast	<= 90.00	✓ 0.0	✓ 0.0	✓ 0.0	✓ 0.0	✓ 0.0	✓ 0.0	✓ 0.0	✓ 0.0
Southwest	<= 90.00	--	--	--	--	--	--	--	--

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frccircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant.
This scorecard view uses a default target percentage of 90.0, so that sub-groups with an average usage below that target are displayed with a red exclamation point to indicate that the item falls below the target. You can modify this target value in the Custom View Wizard to meet your organization's service level goals.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Scorecards Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Scorecards report.

Avg Frame Relay Performance Index

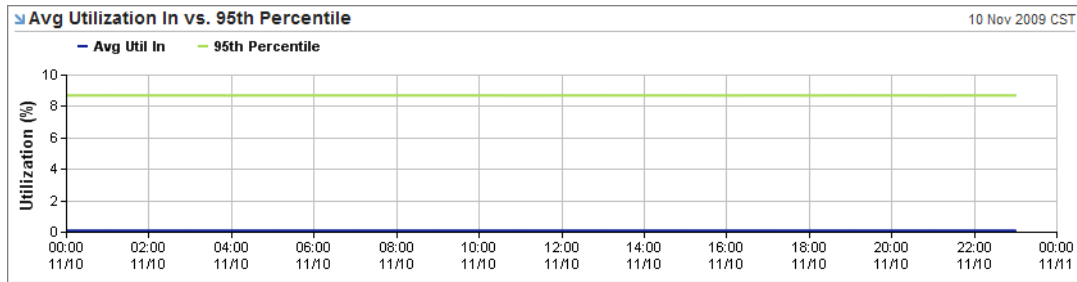
Displays the average performance index for all frame relay circuits in a group for a selected period. The performance index is calculated from the usage and the congestion on a circuit. A usage and congestion index of zero indicates a “healthy” circuit.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frccircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Healthy: “Health” index value calculated by adding the usage index and congestion index, dividing by 2, and subtracting from 100
 - Util Index: Average usage weighted against the baseline and threshold values
 - Congestion Index: Average congestion weighted against the baseline and threshold values
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Frame Relay Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Frame Relay Summary report.

Avg Utilization In vs. 95th Percentile

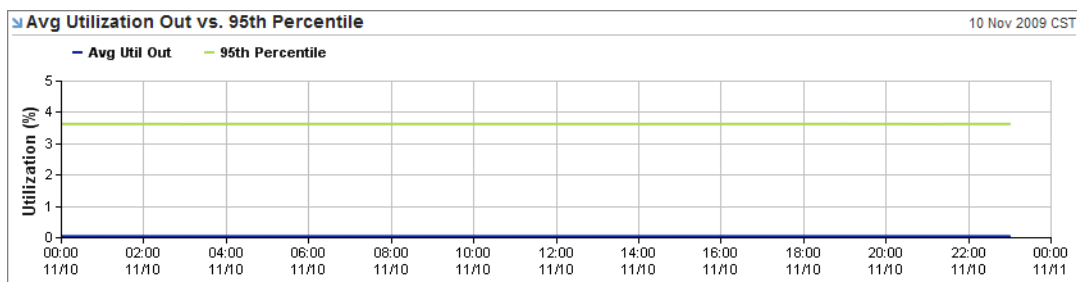
Displays the average inbound usage compared to the 95th percentile for frame relay circuits in a reporting group over the selected period. For periods of one week or more, it also displays the 95th percentile usage projection.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avg Util In: The average inbound usage, which is calculated by dividing the inbound bytes received by the incoming Committed Information Rate for the frame relay circuit multiplied by the duration
 - 95th Percentile: The 95th percentile for the average usage. The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the 95th percentile usage projection is not displayed.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Management Summary report.

Avg Utilization Out vs. 95th Percentile

Displays the average outbound usage compared to the 95th percentile for frame relay circuits in a reporting group over the selected period. For periods of one week or more, it also displays the 95th percentile usage projection.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:

-
- Avg Util Out: The average outbound usage, which is calculated by dividing the outbound bound bytes received by the outgoing Committed Information Rate for the frame relay circuit multiplied by the duration
 - 95th Percentile: The 95th percentile for the average outbound usage. The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.
 - Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the 95th percentile usage projection is not displayed.
 - Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
 - Standard NetQoS Performance Center reports: This view is included in the Management Summary report.

Closest to Threshold - Frame Relay Congestion

Displays those frame relay circuits in a reporting group that have congestion rate values closest to the threshold. This view also displays the projected number of days until the rate for each circuit crosses the congestion threshold.

Closest to Threshold views calculate the trend for an expression. When that calculation projects that the value for the expression will reach or exceed threshold within one year, the data is represented in the view. For example, when latency and the baseline are on an incline, a projection calculation predicts when the device will meet or exceed the threshold.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Description of the congestion calculation
 - Average: Average congestion as a percentage
 - Threshold: The threshold for the `congest_rate` expression in NetVoyant
 - Days to Threshold: The projected number of days until the value for the expression exceeds the threshold.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the Top Closest to Threshold report.
- Standard NetQoS Performance Center reports: This view is included in the Top Closest to Threshold report.

Closest to Threshold - Frame Relay PVC Util

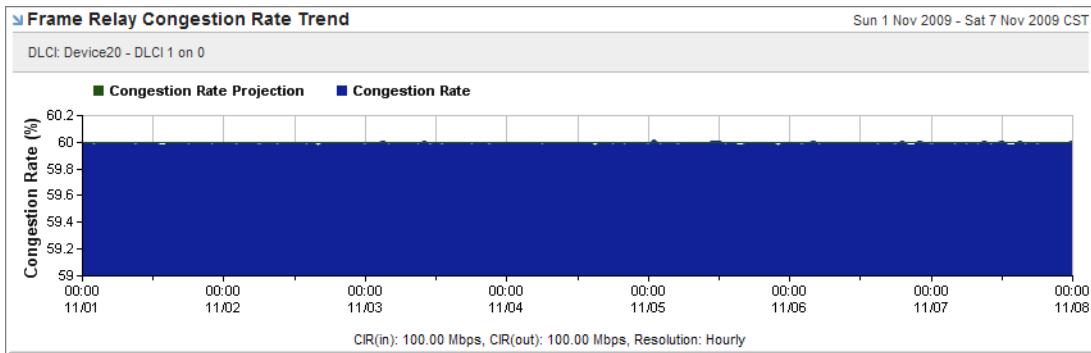
Displays those frame relay circuits in a reporting group that have average permanent virtual circuit (PVC) usage values closest to the threshold. This view also displays the projected number of days until the rate for each circuit crosses the PVC usage threshold.

Closest to Threshold views calculate the trend for an expression. When that calculation projects that the value for the expression will reach or exceed threshold within one year, the data is represented in the view. For example, when latency and the baseline are on an incline, a projection calculation predicts when the device will meet or exceed the threshold.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Description of the PVC usage calculation
 - Average: Average PVC usage as a percentage
 - Threshold: The threshold for the `congest_rate` expression in NetVoyant
 - Days to Threshold: The projected number of days until the value for the expression exceeds the threshold
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the Top Closest to Threshold report.
- Standard NetQoS Performance Center reports: This view is included in the Top Closest to Threshold report.

Frame Relay Congestion Rate Trend

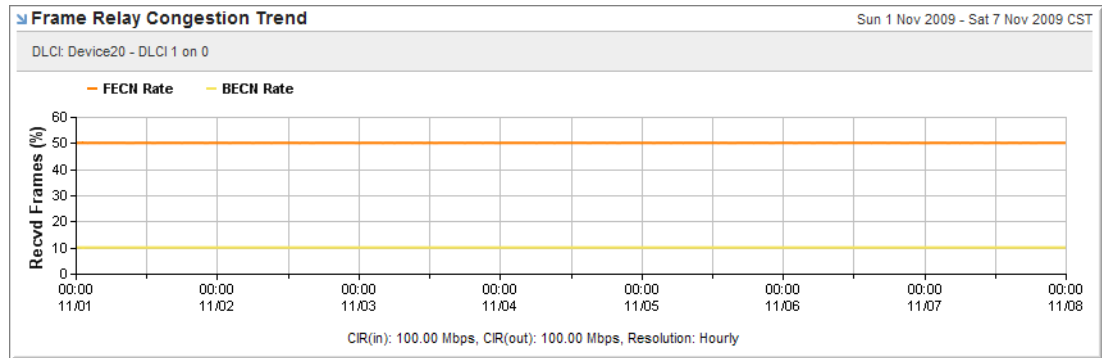
Displays the congestion rate (percentage of frames sent or received that indicate forward or backward congestion) for a frame relay circuit over the selected period. This view also includes a 30-day moving baseline (hourly or daily periods) or projection (weekly or greater periods).



- Context: This view requires a selected DLCI (Frame Relay) circuit to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Frame Relay Congestion Report](#).

Frame Relay Congestion Trend

Displays the FECN rate and BECN rate, by date and time increments, for a frame relay circuit during the selected period. This view also includes a 30-day moving baseline (hourly or daily periods) or projection (weekly or greater periods).

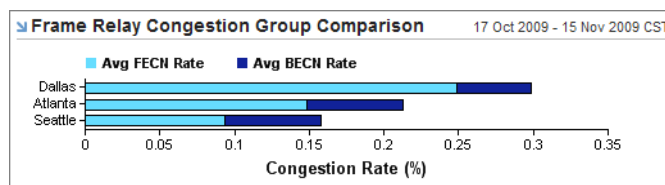


- Context: This view requires a selected DLCI (Frame Relay) circuit to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - FECN Rate: Percentage of frames received from the network that indicate forward congestion
 - BECN Rate: Percentage of frames sent by the network that indicate backward congestion
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Frame Relay Summary Report](#) and [Frame Relay Congestion Report](#).

Frame Relay Congestion Group Comparison

Compares the average Forward Explicit Congestion Notifications (FECNs) and Backward Explicit Congestion Notifications (BECNs) by sub-group on the frame relay circuits in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avg FECN Rate: Average percentage of frames received from the network that indicate forward congestion since the virtual circuit was created

- Avg BECN Rate: Average percentage of frames sent by the network that indicate backward congestion since the virtual circuit was created.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Frame Relay Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Frame Relay Group Comparison report.

Frame Relay Details

Displays a table containing detailed information for a frame relay circuit.

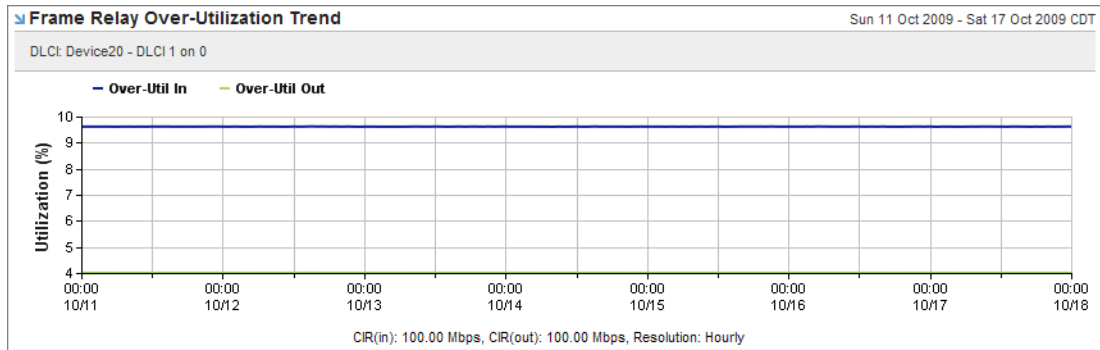
Frame Relay Details	
DLCI: Device20 - DLCI 1 on 0	
Attribute	Value
Name	Device20 - DLCI 1 on 0
Description	DLCI 1 on 0
Device sysName	Device20
Device sysDescr	Cisco Internetwork Operating System Software ..IOS (tm) 3600 Software (C3640-JS-M), Version 12.3(9), by cisco Systems, Inc...Compiled Fri 14-May-04 13:16 by dchih
Polling Enabled	Yes
Polling Station	NV6018p1
Poll Rate	Fast (300)
Properties:	
CIR In	100.00 Mbps
CIR Out	100.00 Mbps
EIR In	100.00 Mbps
EIR Out	100.00 Mbps
1 of 1	

- Context: This view requires a selected DLCI (Frame Relay) circuit to be displayed.
- Data: This view uses multiple metrics to render property information for the managed object. This view includes values for the following attributes:
 - Name: Circuit name as defined by Poll Instance Name template for the Frame Relay Circuit Statistics dataset in the NetVoyant console.
 - Description: Circuit description as defined by Poll Instance Description template for the Frame Relay Circuit Statistics dataset in the NetVoyant console.
 - Device sysName: Device name as identified in the sysName OID on the device.
 - Device sysDescr: Device description as identified in the sysDescr OID on the device.
 - Polling Enabled: Whether polling is enabled for the device. When polling is enabled, NetVoyant gathers data for the device.
 - Polling Station: NetVoyant server that polls the device for SNMP statistics. In a distributed configuration, this is the poller that polls the device. In a standalone configuration, the poller is the Master console.
 - Poll Rate: Poll rate (interval) for the device
 - Properties: Properties configured on the circuit
 - CirIn: Incoming Committed Information Rate for the frame relay circuit, which indicates how much bandwidth is guaranteed by your service provider. The CirIn can range from zero to the EirIn.
 - CirOut: Outgoing Committed Information Rate for the frame relay circuit, which indicates how much bandwidth is guaranteed by your service provider. The CirOut can range from zero to the EirOut.

- EirIn: Incoming Excess Information Rate for the frame relay circuit, which is typically the circuit speed.
- EirOut: Outgoing Excess Information Rate for the frame relay circuit, which is typically the circuit speed.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Frame Relay Details Report](#).

Frame Relay Over-Utilization Trend

Displays the inbound and outbound over-usage for a frame relay circuit during the selected period.



- Context: This view requires a selected DLCI (Frame Relay) circuit to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Over-Util In: The inbound PVC over-usage, which is calculated by dividing the inbound volume received by the incoming Excess Information Rate for the frame relay circuit.
 - Over-Util Out: The outbound PVC over-usage, which is calculated by dividing the outbound volume sent by the outgoing Excess Information Rate for the frame relay circuit.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, staked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Frame Relay Performance Index

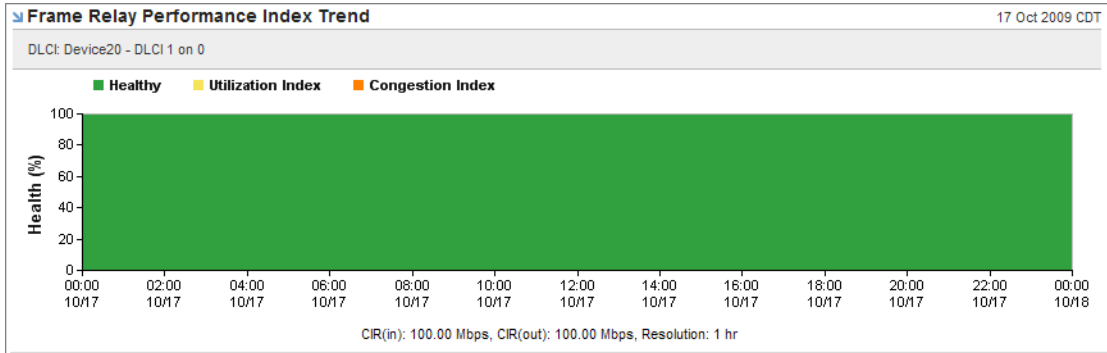
Displays the performance index for each frame relay circuit in a reporting group during the selected period. The performance index is calculated from the usage and the congestion on a circuit. A usage and congestion index of zero indicates a “healthy” circuit.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization Index: Average usage weighted against the baseline and threshold values
 - Congestion Index: Average congestion weighted against the baseline and threshold values
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.

- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Frame Relay Performance Index Trend

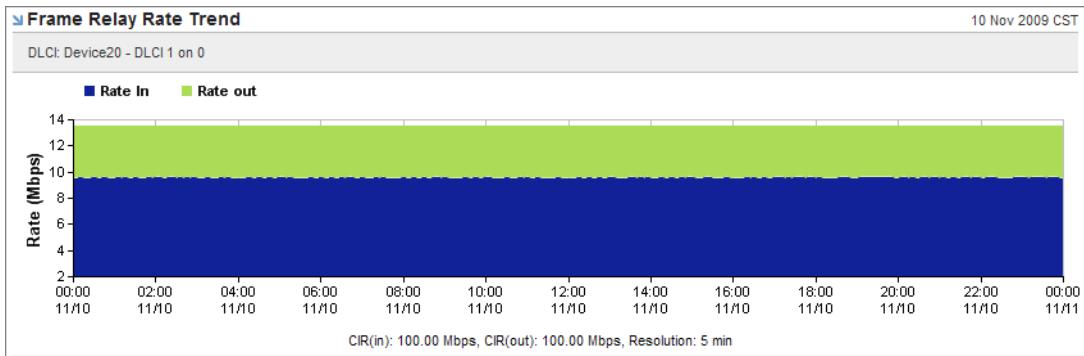
Displays the performance index, by date and time intervals, for a frame relay circuit during the selected period. The performance index is calculated from the usage and the congestion on a circuit. A usage and congestion index of zero indicates a “healthy” circuit.



- Context: This view requires a selected DLCI (Frame Relay) circuit to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Healthy: “Health” index value calculated by adding the usage index and congestion index, dividing by 2, and subtracting from 100
 - Util Index: Average usage weighted against the baseline and threshold values
 - Congestion Index: Average congestion weighted against the baseline and threshold values
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Frame Relay Performance Report](#).

Frame Relay Rate Trend

Displays the inbound and outbound rate (bytes per second) for a frame relay circuit during the selected period.

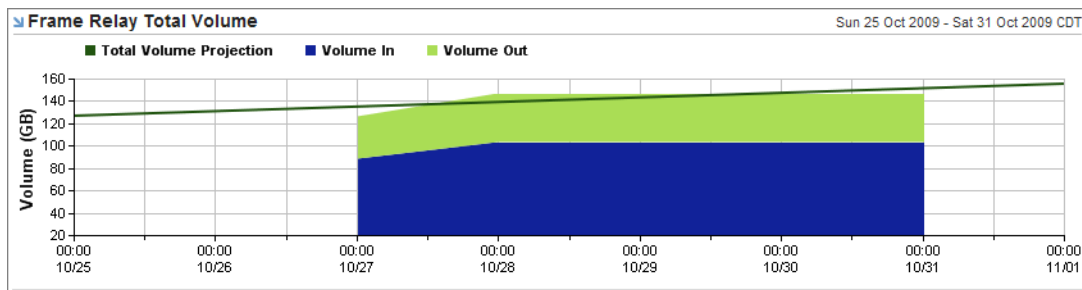


- Context: This view requires a selected DLCI (Frame Relay) circuit to be displayed.

- **Data:** The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Rate In: Average rate (bps) for frames received
 - Rate Out: Average rate (bps) for frames sent
- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Frame Relay Total Volume

Displays the overall volume in and volume out for frame relay circuits in a reporting group during the selected period. For periods of one week or more, it also displays a projection of the total volume (volume in + volume out).

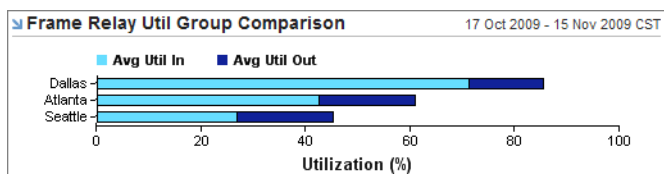


- **Context:** This view requires a selected reporting group to be displayed.
- **Data:** The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Volume In: Volume (bytes) received over the virtual circuit.
 - Volume Out: Volume (bytes) sent from the virtual circuit.
- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the total volume projection is not displayed.
- **Standard NetVoyant reports:** This view is included in the [Frame Relay Summary Report](#).
- **Standard NetQoS Performance Center reports:** This view is included in the Frame Relay Summary report.

Frame Relay Util Group Comparison

Displays the average inbound and outbound PVC usage, by sub-group, on frame relay circuits in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

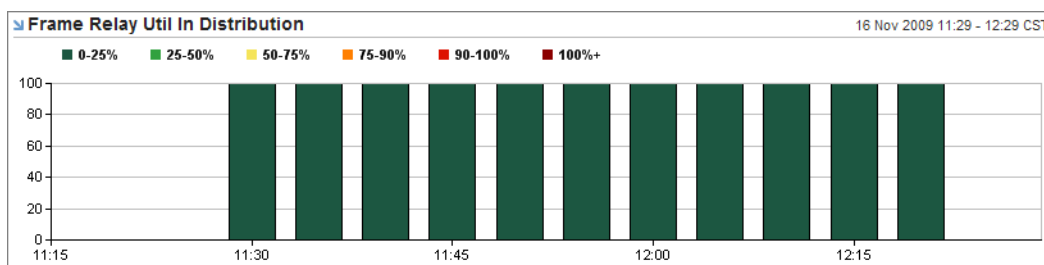


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avg Util In: The average inbound PVC usage, which is calculated by dividing the inbound bytes received by the incoming Committed Information Rate for the frame relay circuit multiplied by the duration
 - Avg Util Out: The average outbound PVC usage, which is calculated by dividing the outbound bytes received by the outgoing Committed Information Rate for the frame relay circuit multiplied by the duration
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Frame Relay Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Frame Relay Group Comparison report.

Frame Relay Util In Distribution

Displays the inbound usage for frame relay circuits in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-25%: Number of frame relay circuits with inbound usage of 25% or below.
 - 25-50%: Number of frame relay circuits with inbound usage between 25% and 50%.
 - 50-75%: Number of frame relay circuits with inbound usage value between 50% and 75%.
 - 75-90%: Number of frame relay circuits with inbound usage between 75% and 90%.
 - 90-100%: Number of frame relay circuits with inbound usage between 90% and 100%.
 - 100%+: Number of frame relay circuits with inbound usage of 100% or more.
- Styles: This view can be displayed as a stacked bar chart or table.

- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Frame Relay Util In Distribution Table

Displays the inbound usage for frame relay circuits in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

Frame Relay Util In Distribution Table						
16 Nov 2009 11:29 - 12:29 CST						
Date/Time ▲	0-25%	25-50%	50-75%	75-90%	90-100%	100%+
11:30	501 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
11:35	501 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
11:40	501 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
11:45	501 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
11:50	501 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
11:55	501 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
12:00	501 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
12:05	501 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
12:10	501 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
12:15	501 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
12:20	501 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is frcircuit, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-25%: Number and percentage of frame relay circuits with inbound usage of 25% or less.
 - 25-50%: Number and percentage of frame relay circuits with inbound usage between 25% and 50%.
 - 50-75%: Number and percentage of frame relay circuits with inbound usage between 50% and 75%.
 - 75-90%: Number and percentage of frame relay circuits with inbound usage between 75% and 90%.
 - 90-100%: Number and percentage of frame relay circuits with inbound usage between 90% and 100%.
 - 100%+: Number and percentage of frame relay circuits with inbound usage of 100% or more.
- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Frame Relay Util In Group Distribution

Displays a distribution bar chart or table that compares the overall inbound usage, by sub-group, for frame relay circuits in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

-
- Context: This view requires a selected reporting group to be displayed.
 - Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-25%: Percentage of frame relay circuits with an inbound usage value of 25% or less.
 - 25-50%: Percentage of frame relay circuits with an inbound usage value between 25% and 50%.
 - 50-75%: Percentage of frame relay circuits with an inbound usage value between 50% and 75%.
 - 75-90%: Percentage of frame relay circuits with an inbound usage value between 75% and 90%.
 - 90-100%: Percentage of frame relay circuits with an inbound usage value between 90% and 100%.
 - 100%+: Percentage of frame relay circuits with an inbound usage value of 100% or more.
 - Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
 - Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Frame Relay Util In Sub Group Summary

Displays the average inbound usage, by sub-group, for frame relay circuits in a reporting group during the selected period.

The average inbound PVC usage is calculated by dividing the inbound bytes received by the incoming Committed Information Rate for the frame relay circuit multiplied by the duration.

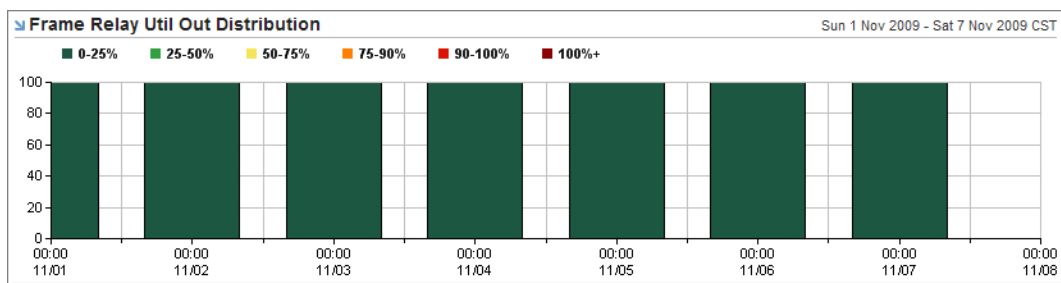
Group Summary views provide an aggregate view for the selected group broken down by sub-group to display meaningful comparisons of performance. Because reporting groups and sub-groups are typically organized to match your network organization, these views can also provide insights into how specific parts of your network compare to others.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expression:
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Frame Relay Util Out Distribution

Displays the outbound usage for frame relay circuits in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-25%: Number of frame relay circuits with outbound usage of 25% or less.
 - 25-50%: Number of frame relay circuits with outbound usage between 25% and 50%.
 - 50-75%: Number of frame relay circuits with outbound usage between 50% and 75%.
 - 75-90%: Number of frame relay circuits with outbound usage between 75% and 90%.
 - 90-100%: Number of frame relay circuits with outbound usage between 90% and 100%.
 - 100%+: Number of frame relay circuits with outbound usage of 100% or more.
- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Frame Relay Util Out Distribution Table

Displays the outbound usage for frame relay circuits in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

Frame Relay Util Out Distribution Table						
Sun 1 Nov 2009 - Sat 7 Nov 2009 CST						
Date/Time ▲	0-25%	25-50%	50-75%	75-90%	90-100%	100%+
Sun 01 November	201 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
Mon 02 November	201 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
Tue 03 November	201 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
Wed 04 November	151 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
Thu 05 November	151 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
Fri 06 November	151 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
Sat 07 November	151 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-25%: Number and percentage of frame relay circuits with outbound usage of 25% or less.
 - 25-50%: Number and percentage of frame relay circuits with outbound usage between 25% and 50%.
 - 50-75%: Number and percentage of frame relay circuits with outbound usage between 50% and 75%.

-
- 75-90%: Number and percentage of frame relay circuits with outbound usage between 75% and 90%.
 - 90-100%: Number and percentage of frame relay circuits with outbound usage between 90% and 100%.
 - 100%+: Number and percentage of frame relay circuits with outbound usage of 100% or more.
 - Styles: This view can be displayed as a stacked bar chart or table.
 - Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Frame Relay Util Out Group Distribution

Displays a distribution bar chart that compares the overall outbound usage, by sub-group, for frame relay circuits in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-25%: Percentage of frame relay circuits with an outbound usage value of 25% or less.
 - 25-50%: Percentage of frame relay circuits with an outbound usage value between 25% and 50%.
 - 50-75%: Percentage of frame relay circuits with an outbound usage value between 50% and 75%.
 - 75-90%: Percentage of frame relay circuits with an outbound usage value between 75% and 90%.
 - 90-100%: Percentage of frame relay circuits with an outbound usage value between 90% and 100%.
 - 100%+: Percentage of frame relay circuits with an outbound usage value of 100% or more.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Frame Relay Util Out Sub Group Summary

Compares the average outbound usage, by sub-group, for frame relay circuits in a reporting group during the selected period.

The average outbound PVC usage is calculated by dividing the outbound bytes received by the outgoing Committed Information Rate for the frame relay circuit multiplied by the duration.

Group Summary views provide an aggregate view for a group broken down by sub-group to display meaningful comparisons of performance. Because reporting groups and sub-groups are typically organized to match your network organization, these views can also provide insights into how specific parts of your network compare to others.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Frame Relay Utilization Calendar Chart

Displays the combined (inbound and outbound) permanent virtual circuit (PVC) usage for a frame relay circuit for each day and hour during a selected period.

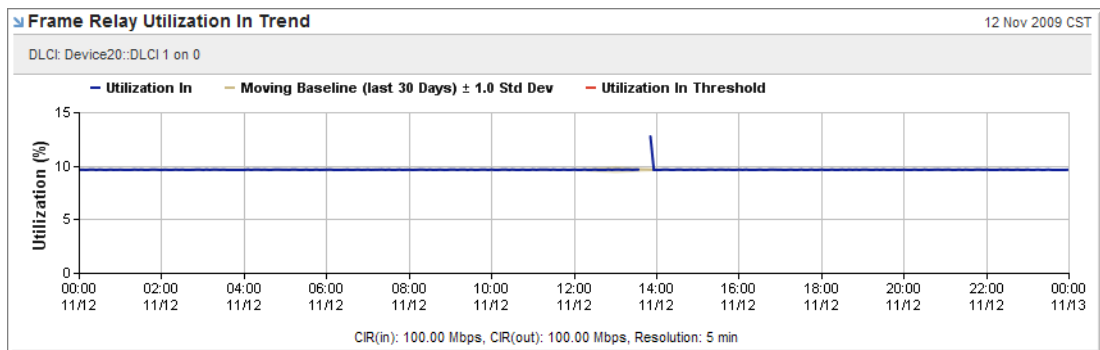
Note: This view cannot be edited in the Custom View Wizard.

- Context: This view requires a selected DLCI (Frame Relay) circuit to be displayed.
- Data: The metric used to render this view is `avail`, which corresponds to the Device Availability dataset in NetVoyant.
- Styles: This view can be displayed as calendar chart only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Frame Relay Utilization In Trend

Displays the inbound permanent virtual circuit (PVC) usage, by date and time increments, for a frame relay circuit during the selected period. This view also includes a 30-day moving baseline (hourly or daily periods) or projection (weekly or greater periods).

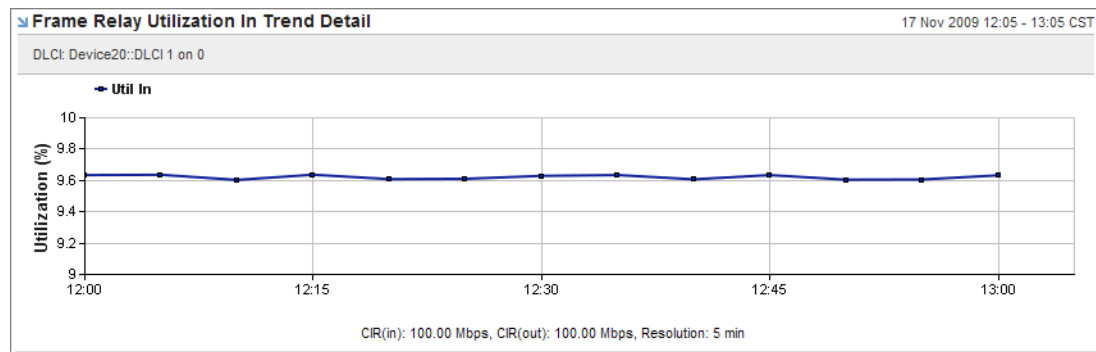
Average inbound PVC usage is calculated by dividing the inbound bytes received by the incoming Committed Information Rate for the frame relay circuit multiplied by the duration



- Context: This view requires a selected DLCI (Frame Relay) circuit to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Frame Relay Summary Report](#) and [Frame Relay Utilization Report](#).

Frame Relay Utilization In Trend Detail

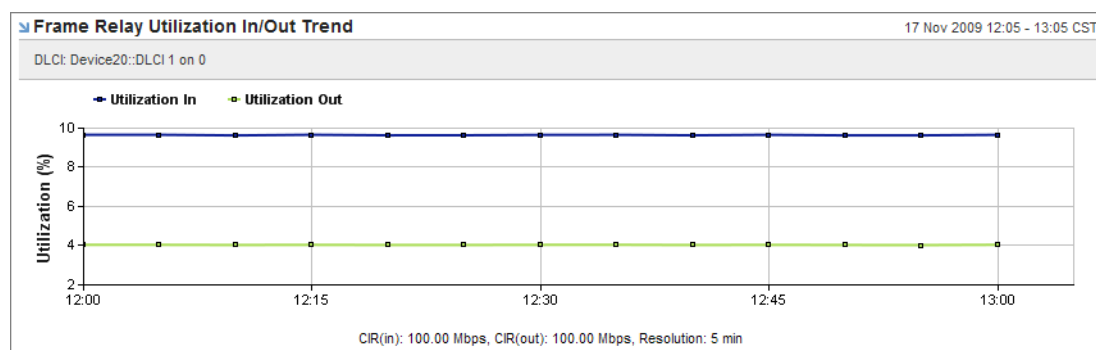
Displays the inbound permanent virtual circuit (PVC) usage compared to the maximum and 95th percentile values, by date and time increments, for a frame relay circuit during the selected period. This view also includes a 30-day moving baseline (hourly or daily periods) or projection (weekly or greater periods).



- Context: This view requires a selected DLCI (Frame Relay) circuit to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Util In: Average inbound PVC usage, which is calculated by dividing the inbound bytes received by the incoming Committed Information Rate for the frame relay circuit multiplied by the duration
 - 95th % Util In: The 95th percentile for the inbound usage. The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.
 - Max Util In: The maximum inbound PVC usage value observed
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Frame Relay Utilization Report](#).

Frame Relay Utilization In/Out Trend

Displays inbound and outbound permanent virtual circuit (PVC) usage, by date and time increment, for a frame relay interface over the selected period.



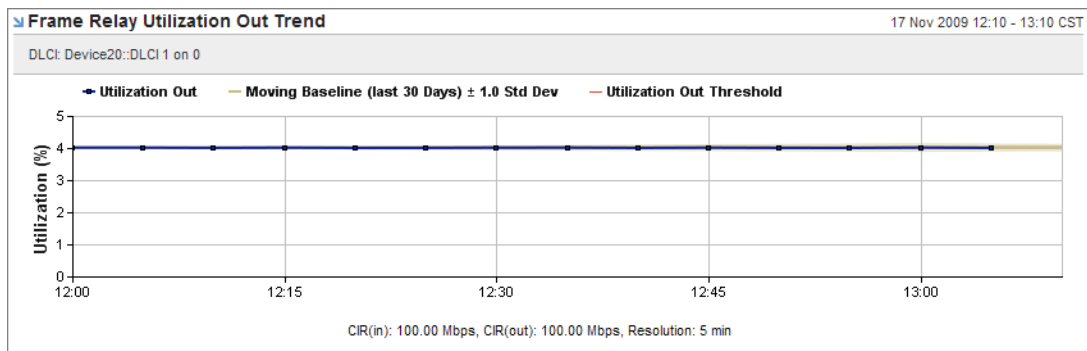
- Context: This view requires a selected DLCI (Frame Relay) circuit to be displayed.

- **Data:** The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - **Utilization In:** Inbound PVC usage (percentage), which is calculated by dividing the inbound bytes received by the incoming Committed Information Rate for the frame relay circuit multiplied by the duration
 - **Utilization Out:** Outbound PVC usage (percentage), which is calculated by dividing the outbound bytes received by the outgoing Committed Information Rate for the frame relay circuit multiplied by the duration
- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is included in the Frame Relay Utilization report.

Frame Relay Utilization Out Trend

Displays the outbound permanent virtual circuit (PVC) usage, by date and time increments, for a frame relay circuit during the selected period. This view also includes a 30-day moving baseline (hourly or daily periods) or projection (weekly or greater periods).

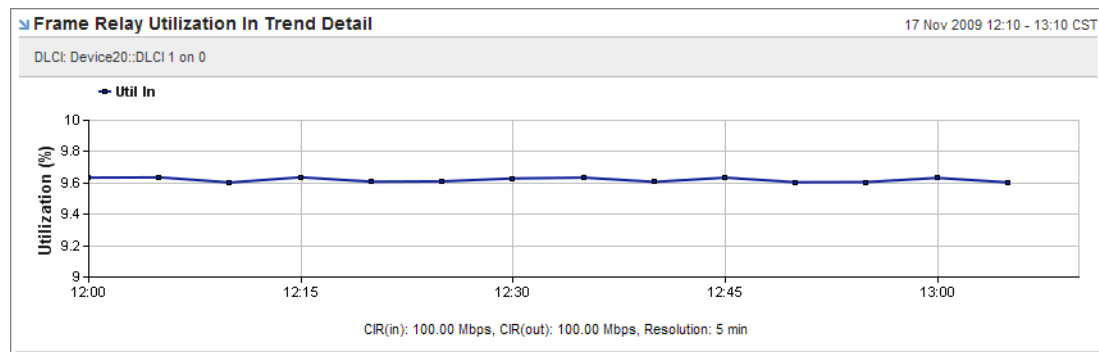
Average outbound PVC usage is calculated by dividing the outbound bytes received by the outgoing Committed Information Rate for the frame relay circuit multiplied by the duration.



- **Context:** This view requires a selected DLCI (Frame Relay) circuit to be displayed.
- **Data:** The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. T
- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is included in the [Frame Relay Summary Report](#) and [Frame Relay Utilization Report](#).

Frame Relay Utilization Out Trend Detail

Displays the outbound permanent virtual circuit (PVC) usage compared to the maximum and 95th percentile values, by date and time increments, for a frame relay circuit during the selected period. This view also includes a 30-day moving baseline (hourly or daily periods) or projection (weekly or greater periods).

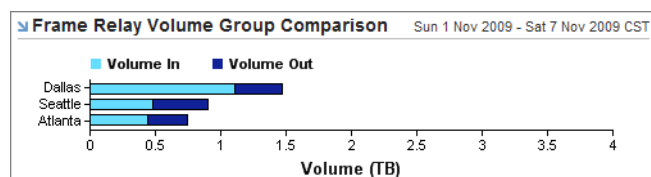


- Context: This view requires a selected DLCI (Frame Relay) circuit to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Util In: Average outbound PVC usage, which is calculated by dividing the outbound bytes received by the outgoing Committed Information Rate for the frame relay circuit multiplied by the duration
 - 95th % Util In: The 95th percentile for the outbound usage. The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.
 - Max Util In: The maximum outbound PVC usage value observed
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Frame Relay Utilization Report](#).

Frame Relay Volume Group Comparison

Displays the inbound and outbound volumes, by sub-group, on frame relay circuits in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

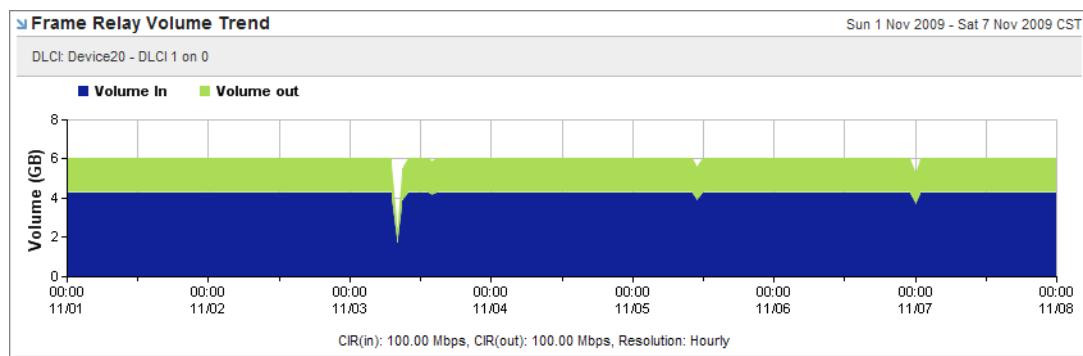


- Context: This view requires a selected reporting group to be displayed.

- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
- Volume In: Volume (bytes) received over the virtual circuit.
- Volume Out: Volume (bytes) sent from the virtual circuit.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Frame Relay Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Frame Relay Group Comparison report.

Frame Relay Volume Trend

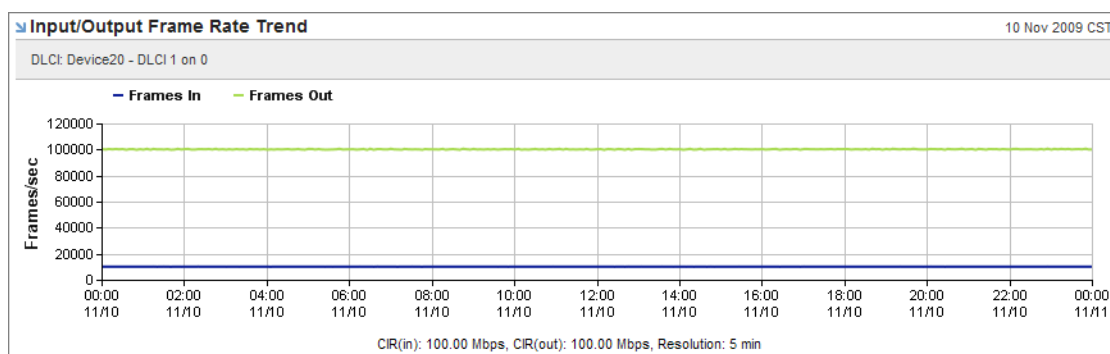
Displays the inbound and outbound volume (bytes) of traffic, in date and time increments, for a frame relay circuit over the selected period.



- Context: This view requires a selected DLCI (Frame Relay) circuit to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Volume In: Volume (bytes) received over the virtual circuit.
 - Volume Out: Volume (bytes) sent from the virtual circuit.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Frame Relay Volume Report](#).

Input/Output Frame Rate Trend

Displays the calculated 30-day moving baseline rate values for inbound and outbound frames, by date and time increments, for a frame relay circuit over the selected period.



- Context: This view requires a selected DLCI (Frame Relay) circuit to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Frames In: Rate of frames per second received
 - Frames Out: Rate of frames per second sent
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Frame Relay Summary Report](#) and [Frame Relay Bandwidth Report](#).

Top Changes - Frame Relay PVC Util

Displays average inbound or outbound permanent virtual circuit (PVC) usage for those frame relay circuits in a reporting group that have the highest change in inbound or outbound PVC usage over the past month.

The view also shows the current month and previous month's 95th percentile PVC usage. The amount of change in usage is calculated from the change in the 95th percentile of data.

Note: The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.

Top Changes - Frame Relay PVC Util						18 Oct 2009 - 16 Nov 2009 CST
Name	Metric	Current Month Average	Current Month 95th %	Previous Month 95th %	% Change of 95th %	
Device20::DLCI 1 on 0	Output PVC util	4.01%	4.01%	4.01%	-0.001	
Device20::DLCI 1 on 0	Input PVC util	9.62%	9.63%	9.63%	0.000	

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Input PVC util or Output PVC util
 - Current Month Average: Average value for the metric over the current reporting month

- Current Month 95th %: Average value for the metric over the current reporting month using the 95th percentile data
- Previous Month 95th %: Average value for the metric for the month previous to the current reporting month using the 95th percentile data
- % Change of 95th %: Percentage change between the current month's 95th percentile value and the previous month's 95th percentile value
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Monthly Changes Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Monthly Changes report.

Top Deviation From Norm - Frame Relay Congestion

Displays the average congestion for those frame relay circuits in a reporting group that have the highest deviation from the 30-day rolling baseline value for congestion rate. This view provides insight into areas experiencing rapid change.

Top Deviation from Normal views compare actual values (values during the selected period) to a calculated “normal” value and display those values that have deviated the most from that “normal” value. The “normal” values are calculated as averages using the past 30 days of baselines (generated for expressions as configured in the NetVoyant console). When you select a different period for a report, the “normal” is calculated differently. However, all are averages based on the hourly rollup values.

Top Deviation From Norm - Frame Relay Congestion					17 Nov 2009 12:34 - 13:34 CST
Name	Metric	Normal	Actual	Deviation (%)	
Device20::DLCI 1 on 0	Total Congestion Rate	59.99%	60.01%		0.025
Device15::DLCI 1 on Connection to Dallas	Total Congestion Rate	70.00%	69.98%	-0.024	
Device15::DLCI 5 on Connection to Dallas	Total Congestion Rate	23.33%	23.33%		0.018
Device15::DLCI 10 on Connection to NY	Total Congestion Rate	37.12%	37.12%	-0.011	
Device15::DLCI 7 on Connection to Dallas	Total Congestion Rate	33.33%	33.34%		0.010
Device15::DLCI 2 on Connection to Dallas	Total Congestion Rate	59.99%	60.00%		0.006
Device15::DLCI 3 on Connection to Dallas	Total Congestion Rate	14.80%	14.80%		0.005
Device15::DLCI 4 on Connection to Dallas	Total Congestion Rate	0.11%	0.11%	-0.004	
Device15::DLCI 6 on Connection to Dallas	Total Congestion Rate	23.45%	23.45%	-0.003	
Device15::DLCI 9 on Connection to NY	Total Congestion Rate	114.71%	114.71%		0.003






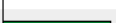
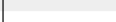
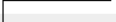


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Average Congestion
 - Normal: Normal congestion calculated from a 30-day rolling baseline
 - Actual: Average congestion percentage during the selected period
 - Deviation (%): Actual congestion calculated as a percentage above or below the normal value.

- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Deviation from Normal Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Deviation from Normal report.

Top Deviation From Norm - Frame Relay PVC Util

Displays the average permanent virtual circuit (PVC) usage for those frame relay circuits in a reporting group that have the highest deviation from the 30-day rolling baseline value for PVC usage. This view provides insight into areas experiencing rapid change.

Top Deviation from Normal views compare actual values (values during the selected period) to a calculated “normal” value and display those values that have deviated the most from that “normal” value. The “normal” values are calculated as averages using the past 30 days of baselines (generated for expressions as configured in the NetVoyant console). When you select a different period for a report, the “normal” is calculated differently. However, all are averages based on the hourly rollup values.

Name	Metric	Normal	Actual	Deviation (%) ▼
Device15::DLCI 5 on Connection to Dallas	Output PVC util	1.76%	2.15%	 22.3
Device15::DLCI 8 on Connection to Dallas	Output PVC util	1.84%	2.25%	 22.3
Device15::DLCI 10 on Connection to NY	Output PVC util	1.92%	2.35%	 22.3
Device15::DLCI 4 on Connection to Dallas	Output PVC util	0.96%	1.17%	 22.3
Device15::DLCI 7 on Connection to Dallas	Output PVC util	2.64%	3.23%	 22.3
Device15::DLCI 3 on Connection to Dallas	Output PVC util	2.00%	2.45%	 22.3
Device15::DLCI 4 on Connection to Dallas	Input PVC util	1.76%	2.15%	 22.3
Device15::DLCI 7 on Connection to Dallas	Input PVC util	6.00%	7.34%	 22.3
Device15::DLCI 9 on Connection to NY	Output PVC util	4.32%	5.28%	 22.3
Device15::DLCI 2 on Connection to Dallas	Output PVC util	0.40%	0.49%	 22.3

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- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Average PVC Util
 - Normal: Normal usage calculated from a 30-day rolling baseline
 - Actual: Average PVC usage percentage during the selected period
 - Deviation (%): Actual PVC usage calculated as a percentage above or below the normal value.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Deviation from Normal Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Deviation from Normal report.

Top Frame Relay Circuits

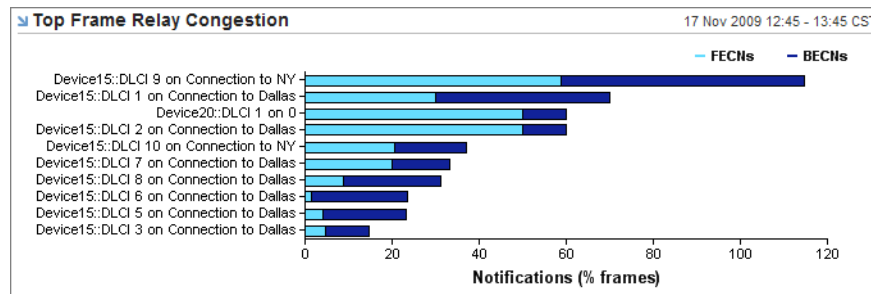
Displays the permanent virtual circuit (PVC) inbound and outbound usage and the Forward Explicit Congestion Notification (FECN) rate and Backward Explicit Congestion Notification (BECN) rate on those circuits in a reporting group with the highest inbound PVC usage during the selected period.

Top Frame Relay Circuits					17 Nov 2009 12:45 - 13:45 CST	
Name	PVC Util In	PVC Util Out	FECN Rate	BECN Rate		
Device15::DLCI 9 on Connection to NY	19.56%	5.28%	58.810	55.864		
Device15::DLCI 1 on Connection to Dallas	9.78%	3.91%	29.997	39.998		
Device20::DLCI 1 on 0	9.61%	4.01%	50.004	10.000		
Device15::DLCI 10 on Connection to NY	9.29%	2.35%	20.586	16.535		
Device15::DLCI 7 on Connection to Dallas	7.34%	3.23%	20.001	13.328		
Device15::DLCI 2 on Connection to Dallas	4.89%	0.49%	49.993	10.001		
Device15::DLCI 8 on Connection to Dallas	4.40%	2.25%	8.695	22.497		
Device15::DLCI 3 on Connection to Dallas	2.45%	2.45%	4.799	10.003		
Device15::DLCI 6 on Connection to Dallas	2.45%	1.47%	1.563	21.886		
Device15::DLCI 4 on Connection to Dallas	2.15%	1.17%	0.100	0.009		

- Context: This view requires a selected reporting group, device, or interface to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - PVC Util In: Inbound PVC usage (percentage), which is calculated by dividing the inbound bytes received by the incoming Committed Information Rate for the frame relay circuit multiplied by the duration
 - PVC Util Out: Outbound PVC usage (percentage), which is calculated by dividing the outbound bytes received by the outgoing Committed Information Rate for the frame relay circuit multiplied by the duration
 - FECN Rate: Rate of frames per second received from the network that indicate forward congestion
 - BECN Rate: Rate of frames per second sent by the network that indicate backward congestion
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Frame Relay Summary Report](#), [Operations Summary Report](#), [Device Capabilities Report](#), and [Router Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the [Router Circuits report](#), the [Enterprise Summary report](#), and the [Frame Relay Summary report](#).

Top Frame Relay Congestion

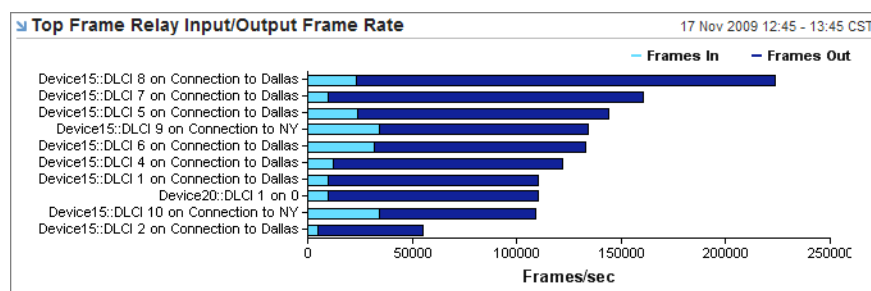
Displays the Forward Explicit Congestion Notification (FECN) rate and Backward Explicit Congestion Notification (BECN) rate on those circuits in a reporting group with the highest total (FECN and BECN) rates during the selected period.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - FECNs: Rate of frames per second received from the network that indicate forward congestion
 - BECNs: Rate of frames per second sent by the network that indicate backward congestion
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Frame Relay Input/Output Frame Rate

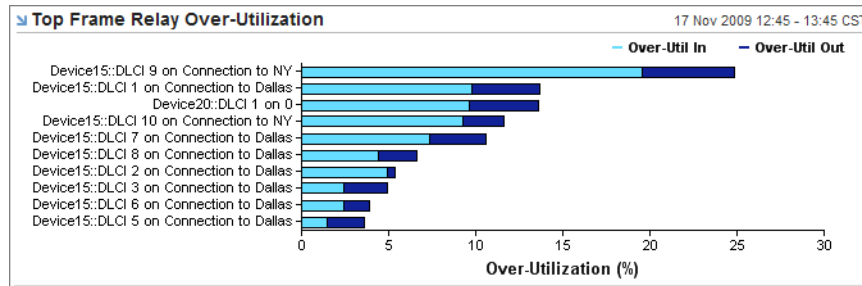
Displays the inbound and outbound frame rates (frames per second) on those circuits in a reporting group with the highest combined input and output rates during the selected period.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Frames In: Rate of frames per second received
 - Frames Out: Rate of frames per second sent
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Frame Relay Over-Utilization

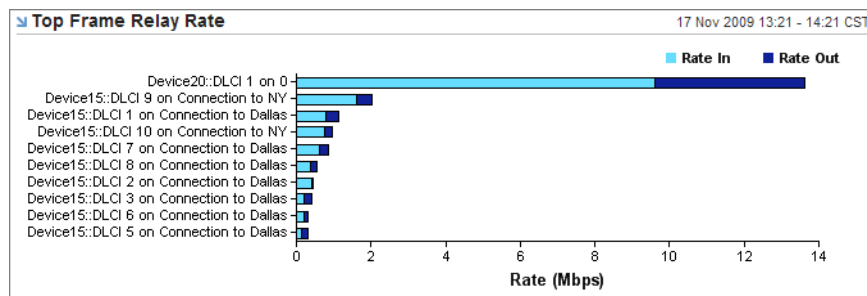
Displays the inbound and outbound over-usage on those circuits in a reporting group with the highest over-usage (inbound + outbound) during the selected period.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Over-Util In: The inbound PVC over-usage, which is calculated by dividing the inbound volume received by the incoming Excess Information Rate for the frame relay circuit.
 - Over-Util Out: The outbound PVC over-usage, which is calculated by dividing the outbound volume sent by the outgoing Excess Information Rate for the frame relay circuit.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Top Issues report.

Top Frame Relay Rate

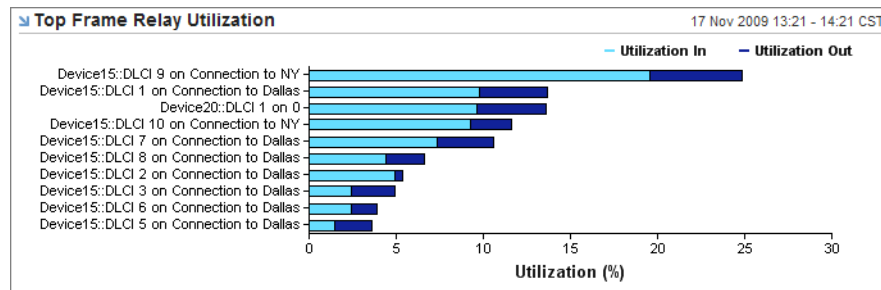
Displays the inbound and outbound rate (bps) on those circuits in a reporting group with the highest combined rates during the selected period.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Rate In: Average rate (bps) for frames received
 - Frames Out: Average rate (bps) for frames sent
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Frame Relay Utilization

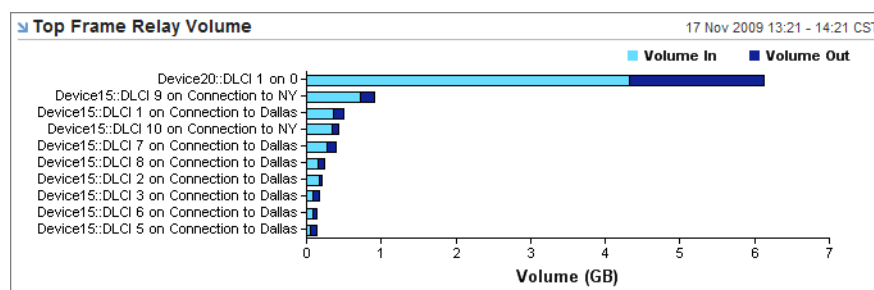
Displays the permanent virtual circuit (PVC) inbound and outbound usage on those circuits in a reporting group with the highest combined usage during the selected period.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization In: Inbound PVC usage (percentage), which is calculated by dividing the inbound bytes received by the incoming Committed Information Rate for the frame relay circuit multiplied by the duration
 - Utilization Out: Outbound PVC usage (percentage), which is calculated by dividing the outbound bytes received by the outgoing Committed Information Rate for the frame relay circuit multiplied by the duration
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Frame Relay Volume

Displays the inbound and outbound volume on those circuits in a reporting group with the highest total volume during the selected period.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Volume In: Volume (bytes) received over the virtual circuit.
 - Volume Out: Volume (bytes) sent from the virtual circuit.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.

- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Projections - Frame Relay Congestion

Displays 30, 60, and 90-day projections for congestion rate for those frame relay circuits in a reporting group with the highest congestion 90-day growth rates.











Name	Metric	Last 90 Days ▾	30 Days	60 Days	90 Days
Device15::DLCI 9 on Connection to NY	Total Congestion Rate	114.71%	114.68%	114.65%	114.62%
Device15::DLCI 1 on Connection to Dallas	Total Congestion Rate	70.00%	69.99%	69.99%	69.98%
Device15::DLCI 2 on Connection to Dallas	Total Congestion Rate	60.00%	60.00%	60.00%	60.01%
Device20::DLCI 1 on 0	Total Congestion Rate	60.00%	59.98%	59.97%	59.96%
Device15::DLCI 10 on Connection to NY	Total Congestion Rate	37.12%	37.12%	37.13%	37.13%
Device15::DLCI 7 on Connection to Dallas	Total Congestion Rate	33.33%	33.34%	33.34%	33.34%
Device15::DLCI 8 on Connection to Dallas	Total Congestion Rate	31.20%	31.19%	31.19%	31.19%
Device15::DLCI 6 on Connection to Dallas	Total Congestion Rate	23.45%	23.46%	23.47%	23.48%
Device15::DLCI 5 on Connection to Dallas	Total Congestion Rate	23.33%	23.32%	23.31%	23.29%
Device15::DLCI 3 on Connection to Dallas	Total Congestion Rate	14.80%	14.80%	14.79%	14.79%

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- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is frcircuit, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Total Congestion Rate
 - Last 90 Days: The congestion growth rate calculated over the preceding 90 days
 - 30 Days: The projected congestion increase 30 days from now
 - 60 Days: The projected volume increase 60 days from now
 - 90 Days: The projected volume increase 90 days from now
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Projections Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Projections report.

Top Projections - Frame Relay PVC Util

Displays 30, 60, and 90-day projections for inbound or outbound permanent virtual circuit (PVC) usage for those frame relay circuits in a reporting group with the highest 90-day PVC usage growth rates.

Top Projections - Frame Relay PVC Util					17 Aug 2009 - 16 Nov 2009 CST
Name	Metric	Last 90 Days ▾	30 Days	60 Days	90 Days
Device15::DLCI 9 on Connection to NY	Input PVC util	19.60% 	19.50%	19.42%	19.33%
Device15::DLCI 1 on Connection to Dallas	Input PVC util	9.81% 	9.79%	9.77%	9.75%
Device20::DLCI 1 on 0	Input PVC util	9.63% 	9.63%	9.64%	9.64%
Device15::DLCI 10 on Connection to NY	Input PVC util	9.32% 	9.30%	9.28%	9.27%
Device15::DLCI 7 on Connection to Dallas	Input PVC util	7.36% 	7.33%	7.30%	7.27%
Device15::DLCI 9 on Connection to NY	Output PVC util	5.30% 	5.30%	5.30%	5.30%
Device15::DLCI 2 on Connection to Dallas	Input PVC util	4.90% 	4.89%	4.87%	4.86%
Device15::DLCI 8 on Connection to Dallas	Input PVC util	4.41% 	4.42%	4.42%	4.43%
Device20::DLCI 1 on 0	Output PVC util	4.01% 	4.02%	4.02%	4.02%
Device15::DLCI 1 on Connection to Dallas	Output PVC util	3.92% 	3.92%	3.92%	3.92%

Show Top: 10 ▾

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Input PVC util or Output PVC util
 - Last 90 Days: The usage growth rate calculated over the preceding 90 days
 - 30 Days: The projected usage increase 30 days from now
 - 60 Days: The projected usage increase 60 days from now
 - 90 Days: The projected usage increase 90 days from now
 - Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the Top Projections report.
- Standard NetQoS Performance Center reports: This view is included in the Top Projections report.

Top Threshold Violations - Frame Relay

Displays the maximum inbound and outbound permanent virtual circuit (PVC) usage and congestion rate for those frame relay circuits in a reporting group with the highest duration values for threshold events during the selected period. Values that exceeded the threshold display in red.

The view also displays the number of unique threshold crossing events (Number of Unique Violations) observed during the selected period.

Note: You can hover the pointer over a value to display the threshold for the expression.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `frcircuit`, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - PVC Util In: Maximum observed inbound PVC usage

-
- PVC Util Out: Maximum observed outbound PVC usage
 - Congest Rate: Maximum observed congestion rate
 - Violation Duration (%): Threshold event duration for the reporting period, as a percentage
 - Number of Unique Violations: Number of threshold events
 - Styles: This view can be displayed as a table only.
 - Standard NetVoyant reports: This view is included in the [Top Threshold Violations Report](#).
 - Standard NetQoS Performance Center reports: This view is included in the Top Threshold Violations report.

GROUP LIST VIEW

There is a single view designed to provide group information. This view lists all groups that are available for the user account and can be added to your custom report pages.

For information about adding the Groups filter interface to your report pages, see [“Adding Group Navigation or Filters to a Report Page”](#) on page 23.

Group List

Displays a list of all reporting groups, with the number of members and descriptive information. This information is similar to when you perform a group search. Use this view to quickly drill-in to more information about a selected group.

Context: This view requires a selected reporting group to be displayed.

Styles: This view can be displayed as a table only.

Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

INTERFACE VIEWS

The following topics describe the views related to interfaces that you can add to your report pages. This information includes the view styles available for each view, the metric used to render the view, and the standard report pages that include the view.

Interface views are designed to provide status and performance information about individual interfaces and interface aggregations within reporting groups.

95th Percentile Utilization Scorecard

Displays an overview scorecard for the 95th percentile interface usage across multiple groups or subgroups. You can select a goal range for the values to determine how the values in the scorecard are displayed.

The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in CPU usage from the data.

Scorecard views display monthly performance data for the previous six month or seven week period by sub-group, for a group. Scorecards are high-level indicators of whether or not measured resources are meeting service-level goals. These views incorporate check marks and exclamation points as visual indicators to enhance quick understanding.

95th Percentile Utilization Scorecard									
Sun 1 Nov 2009 - Sat 7 Nov 2009 CST									
Group ▲	Target	Sep 20	Sep 27	Oct 4	Oct 11	Oct 18	Oct 25	Nov 1	Average
- Routers	<= 90.00	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8
Midwest	<= 90.00	✓ 0.8	✓ 0.7	✓ 0.7	✓ 0.7	✓ 0.8	✓ 0.7	✓ 0.8	✓ 0.8
Northeast	<= 90.00	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8
Northwest	<= 90.00	✓ 0.2	✓ 0.2	✓ 0.2	✓ 0.2	✓ 0.2	✓ 0.2	✓ 0.2	✓ 0.2
Southeast	<= 90.00	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8	✓ 9.8
Southwest	<= 90.00	✓ 0.7	✓ 0.7	✓ 0.7	✓ 0.8	✓ 0.8	✓ 0.7	✓ 0.7	✓ 0.7
1 of 1									
Max Per Page: 10 ▼									

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Scorecards Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Scorecards report.

Address List

Displays a table of IP addresses for a reporting group or managed object. The information presented in the table is similar to what is displayed when you perform an interface search. This view lets you drill in to see more information about a selected address, interface, or device.

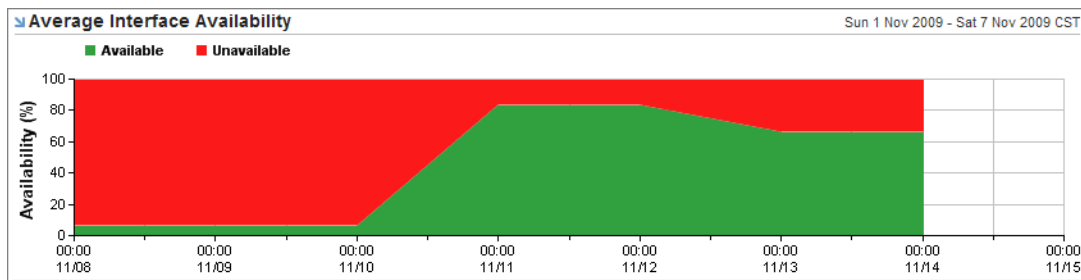
Address List			1 Dec 2009 09:26 - 10:26 CST		
Address ▼	Interface	Device			
192.168.123.2	mnrouter1.redpt.com - [TEST]ethernet3/0	mnrouter1.redpt.com			
192.168.100.254	Mimic2Dev156 - Fa2/0	Mimic2Dev156			
192.168.100.254	Device11 - Fa2/0	Device11			
192.168.100.254	Mimic2Dev100 - Fa2/0	Mimic2Dev100			
192.168.100.254	Device20 - Fa2/0	Device20			
192.168.100.254	Mimic2Dev155 - Fa2/0	Mimic2Dev155			
192.168.100.254	Device12 - Fa2/0	Device12			
192.168.99.254	Mimic2Dev100 - Sales Engineering Lab	Mimic2Dev100			
192.168.99.254	Mimic2Dev155 - Sales Engineering Lab	Mimic2Dev155			
192.168.99.254	Device20 - Sales Engineering Lab	Device20			
			1 2 3 4		
			Max Per Page: 10 ▼		

- Context: This view requires a selected reporting group, device, server, router, switch, or interface to be displayed.
- Data: This view uses multiple metrics to render property information for the managed object. This view includes the following information for each item in the list:

- Address: The IP address for the interface
- Interface: The interface name
- Device: The device name for the interface
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Interface Details Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Details report and the Switch Details report.

Average Interface Availability

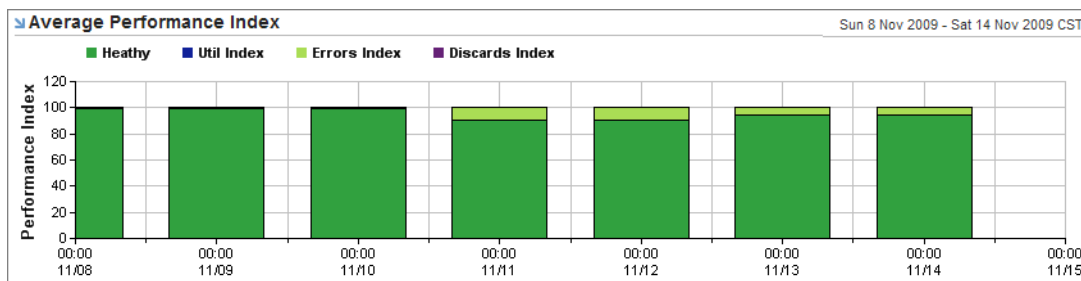
Displays the percentage of availability and unavailability for the interfaces in a reporting group during the selected period.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant.
 - Avail: The average availability as a value between 0 and 100.
 - Unavail: The value calculated by subtracting the average availability from 100.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Average Performance Index

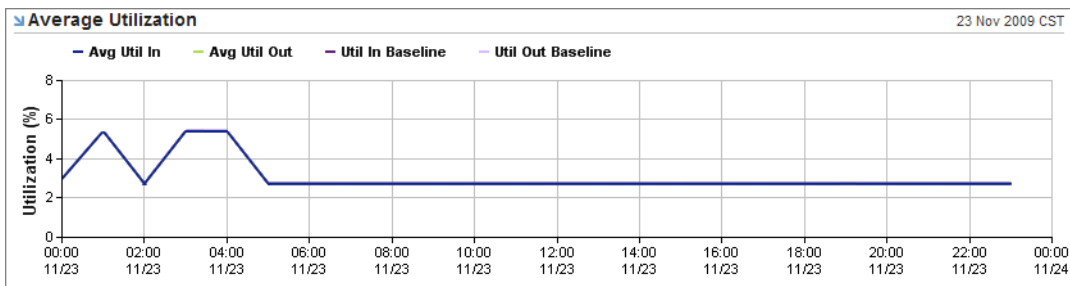
Displays the average performance index, by date and time intervals, for interfaces in a reporting group during the selected period. The performance index is calculated from the usage, the number of discards, and the number of errors on an interface. A usage, errors, and discards index of zero indicates a “healthy” interface.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expression:
 - Healthy: “Health” index value calculated by adding the usage index, errors index, and discards index, dividing by 3, and subtracting from 100
 - Util Index: Average usage weighted against the baseline and threshold values
 - Errors Index: Average percentage of errors weighted against the baseline and threshold values
 - Discards Index: Average percentage of discards weighted against the baseline and threshold values
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [LAN Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the LAN Summary report.

Average Utilization

Displays the average inbound and outbound utilizations for all interfaces in a reporting group during the selected period compared to the 30-day rolling baselines.

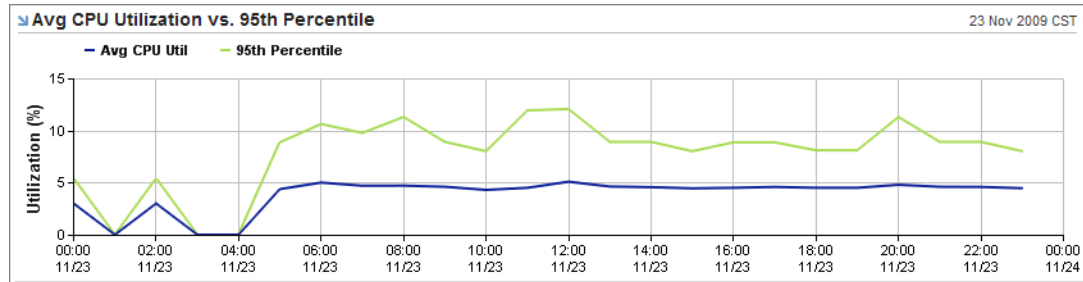


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expression:
 - Avg Util In: Average inbound usage percentage
 - Avg Util Out: Average outbound usage percentage
 - Util In Baseline: 30-day moving baseline for the inbound usage percentage
 - Util Out Baseline: 30-day moving baseline for the outbound usage percentage
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Avg CPU Utilization vs. 95th Percentile

Displays the average CPU usage and 95th percentile usage for interfaces in a reporting group over the selected period. This view also displays the 95th percentile usage projection for periods of one week or more.

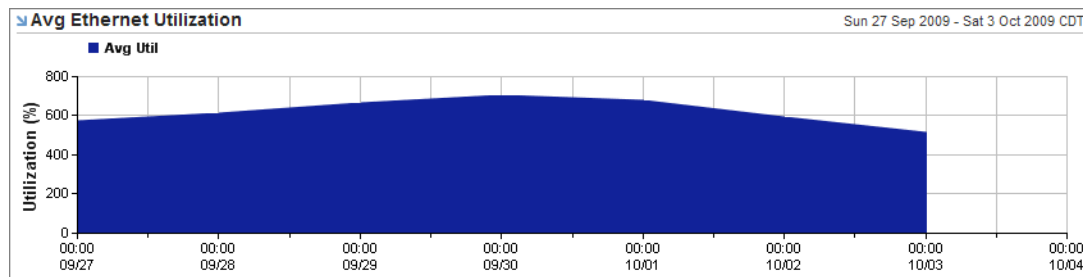
The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in CPU usage from the data.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `ciscoSystem`, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expression:
 - Avg CPU Util: 5 minute exponentially-decayed moving average of the CPU busy percentage.
 - 95th Percentile: Average calculated using the 95th percentile data for the average CPU usage
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the 95th percentile usage projection is not displayed.
- Standard NetVoyant reports: This view is included in the [Router Summary Report](#) and [Server Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Summary report.

Avg Ethernet Utilization

Displays the rolling average for Ethernet usage for interfaces in a reporting group during the selected period. When you select the Show Projection option in the Custom View Wizard, this view also displays the Ethernet usage projection for periods of one week or more.



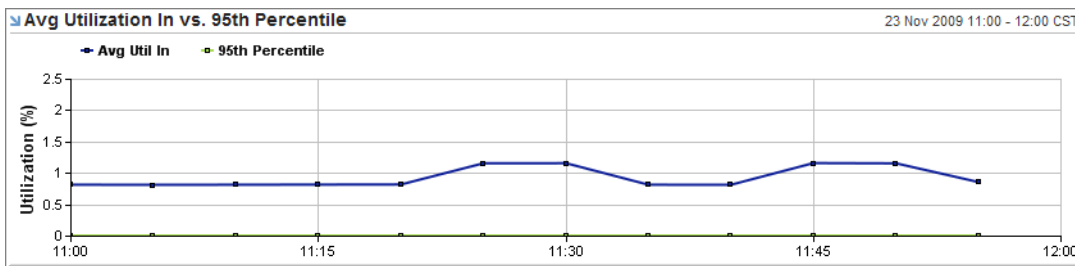
- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `etherstats`, which corresponds to the Ethernet RMON Statistics dataset in NetVoyant.

- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [LAN Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the LAN Summary report.

Avg Utilization In vs. 95th Percentile

Displays the average inbound usage for interfaces in a reporting group over the selected period compared to the 95th percentile. This view also displays the 95th percentile usage projection for periods of one week or more.

The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.

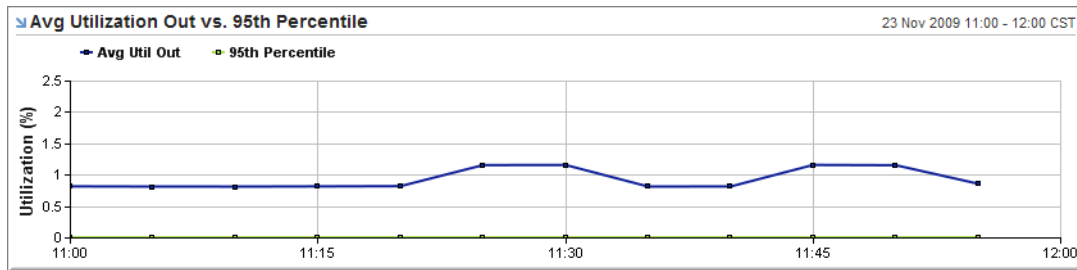


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expression:
 - Avg Util In: Average inbound usage percentage
 - 95th Percentile: Average calculated using the 95th percentile data for interface usage
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the 95th percentile usage projection is not displayed.
- Standard NetVoyant reports: This view is included in the [Management Summary Report](#) and [Frame Relay Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Frame Relay Summary report.

Avg Utilization Out vs. 95th Percentile

Displays the average outbound usage for interfaces in a reporting group over the selected period compared to the 95th percentile. This view also displays the 95th percentile usage projection for periods of one week or more.

The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expression:
 - Avg Util Out: Average outbound usage percentage
 - 95th Percentile: Average calculated using the 95th percentile data for interface usage
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the 95th percentile usage projection is not displayed.
- Standard NetVoyant reports: This view is included in the [Management Summary Report](#) and [Frame Relay Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Frame Relay Summary report.

Closest to Threshold - Interface Utilization

Displays those interfaces in a reporting group that have average inbound or outbound usage values closest to the threshold. This view also displays the projected number of days until the rate for each interface crosses the usage threshold.

Closest to Threshold views calculate the trend for an expression. When that calculation projects that the value for the expression will reach or exceed threshold within one year, the data is represented in the view. For example, when latency is on an incline and thus the baseline is also on an incline, a projection calculation predicts when the device will meet or exceed the threshold.

Name	Metric	Average	Threshold	Days to Threshold ▲
mnrouter1.redpt.com:Tunnel1 -	Input Interface Utilization	0.46%	90.00%	95 <div></div>
mnrouter1.redpt.com:Tunnel0 -	Input Interface Utilization	0.46%	90.00%	96 <div></div>
mnrouter1.redpt.com:Tunnel1 -	Output Interface Utilization	0.45%	90.00%	97 <div></div>
mnrouter1.redpt.com:Tunnel0 -	Output Interface Utilization	0.45%	90.00%	99 <div></div>

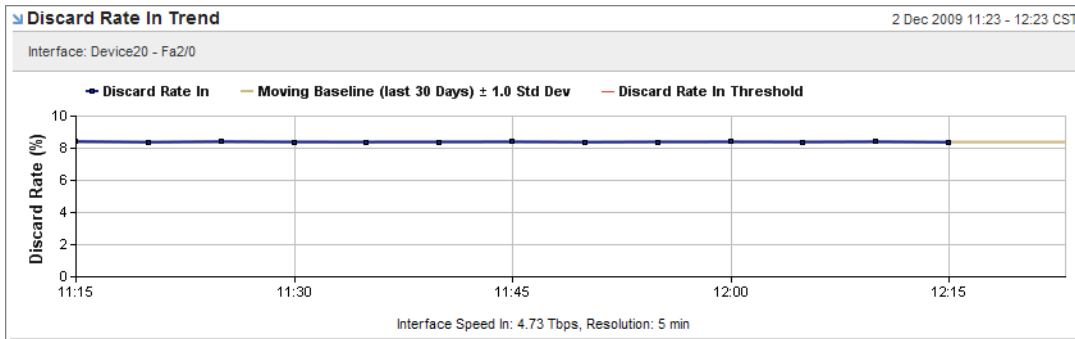
Show Top: 10 ▼

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Interface inbound usage or Interface outbound usage
 - Average: Average usage as a percentage
 - Threshold: The threshold for the in_ifutil or out_ifutil expression in NetVoyant
 - Days to Threshold: The projected number of days until the value for the expression exceeds the threshold

- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Closest to Threshold Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Closest to Threshold and the Alerts and Violations report.

Discard Rate In Trend

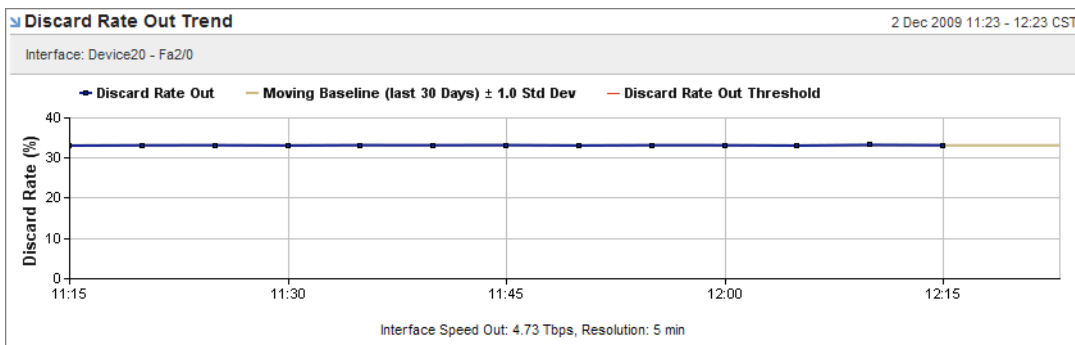
Displays the average inbound discard rate for a interface over the selected period. This view also displays the calculated 30-day moving baseline and threshold for daily or hourly periods and the average inbound discard rate projection for periods of one week or more.



- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the inbound discard rate projection is not displayed.
- Standard NetVoyant reports: This view is included in the [Interface Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Interface Capacity report.

Discard Rate Out Trend

Displays the average outbound discard rate for a interface over the selected period. This view also displays the calculated 30-day moving baseline and threshold for daily or hourly periods and the average outbound discard rate projection for periods of one week or more.

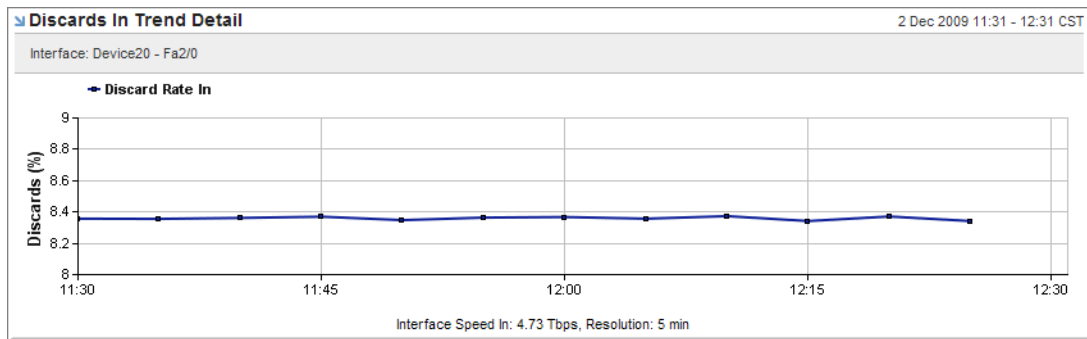


- Context: This view requires a selected interface to be displayed.

- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the outbound discard rate projection is not displayed.
- Standard NetVoyant reports: This view is included in the [Interface Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Interface Capacity report.

Discards In Trend Detail

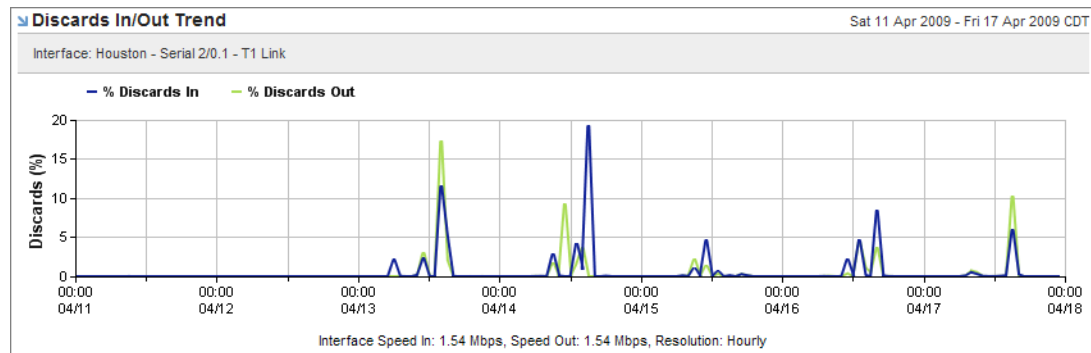
Displays the average inbound discard rate on a interface over the selected period compared to the maximum value observed for the roll-up data.



- Context: This view requires a selected interface to be displayed.
 - Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Discard Rate In: Average inbound discard rate (percentage) for the interface
 - Max Discard Rate In: Maximum inbound discard rate observed
- Important:** Maximum values are calculated using rollup data and cannot be displayed when the resolution is set to the poll rate.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
 - Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Discards In/Out Trend

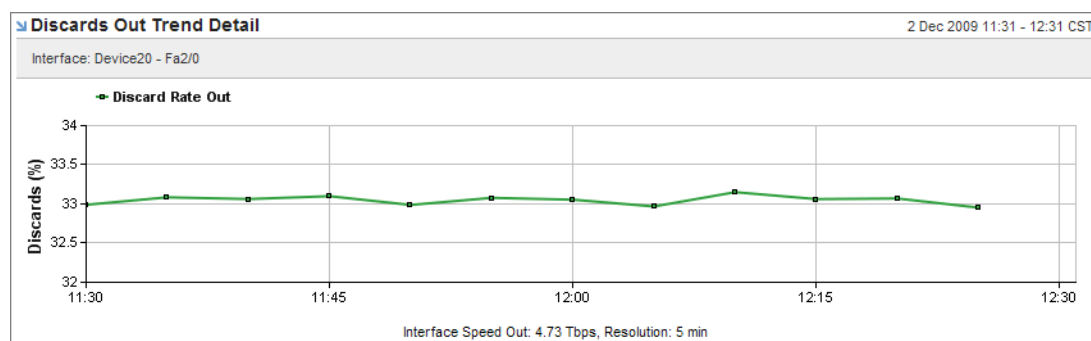
Displays the average inbound and outbound discard rates (percentages) for an interface over the selected period.



- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - % Discards In: Inbound discard rate (percentage) for the interface
 - % Discards Out: Outbound discard rate (percentage) for the interface
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Interface Errors/Discards Report](#).

Discards Out Trend Detail

Displays the average outbound discard rate on an interface over the selected period compared to the maximum value observed for the roll-up data.



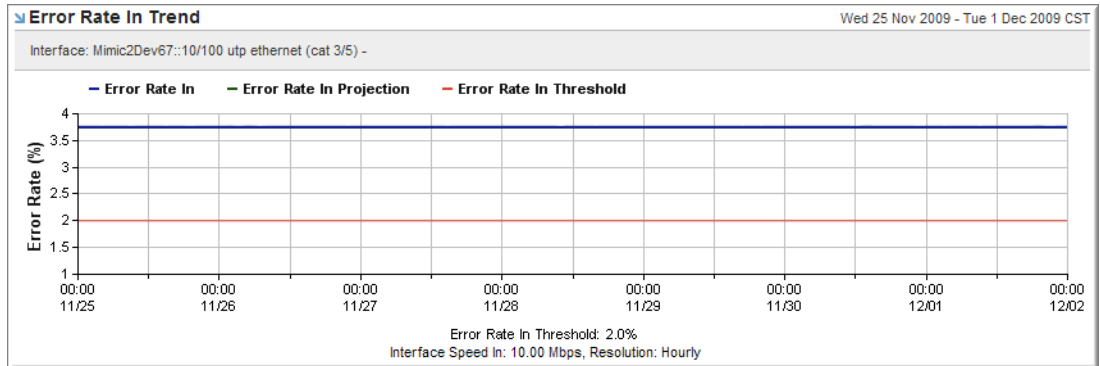
- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Discard Rate Out: Average outbound discard rate (percentage) for the interface
 - Max Discard Rate Out: Maximum outbound discard rate observed

Note: Maximum values are calculated using rollup data and cannot be displayed when the resolution is set to the poll rate.

- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Error Rate In Trend

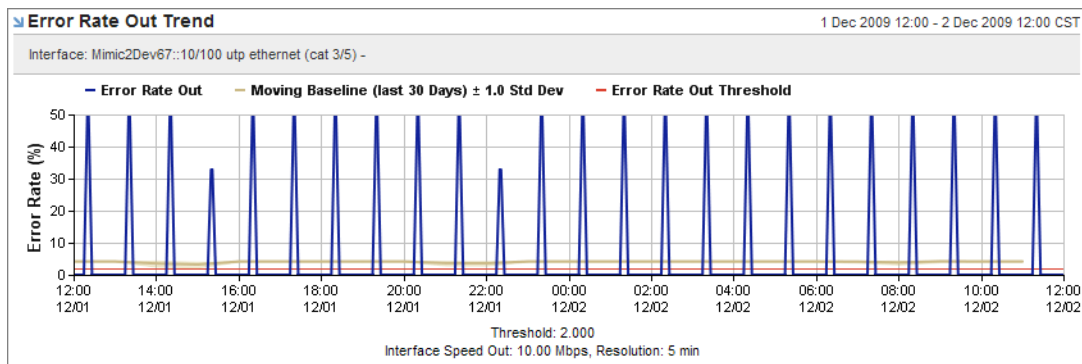
Displays the average inbound error rate for an interface over a selected period. This view also displays the 30-day rolling baseline for hourly/daily periods and the average inbound error rate projection for selected periods of one week or more.



- **Context:** This view requires a selected interface to be displayed.
- **Data:** The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant.
- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is included in the [Interface Summary Report](#).

Error Rate Out Trend

Displays the average outbound error rate for an interface over a selected period. This view also displays the 30-day rolling baseline for hourly/daily periods and the average outbound error rate projection for selected periods of one week or more.

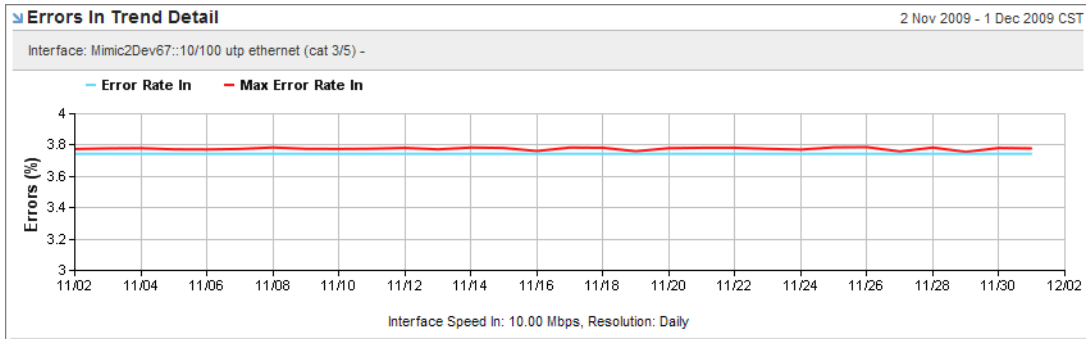


- **Context:** This view requires a selected interface to be displayed.

- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Interface Summary Report](#).

Errors In Trend Detail

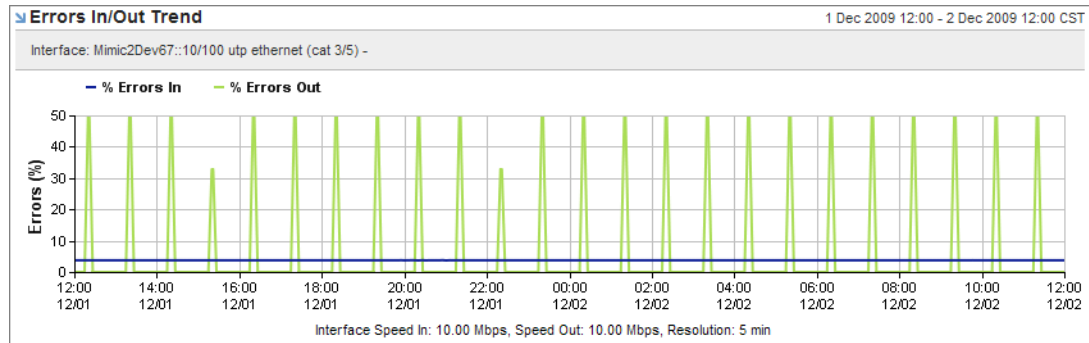
Displays the average inbound error rate on an interface over a selected period compared to the maximum value observed for the roll-up data.



- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Error Rate In: Average inbound error rate (percentage) for the interface
 - Max Error Rate In: Maximum inbound error rate observed
- **Note:** Maximum values are calculated using rollup data and cannot be displayed when the resolution is set to the poll rate.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Interface Errors/Discards Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Interface Capacity report.

Errors In/Out Trend

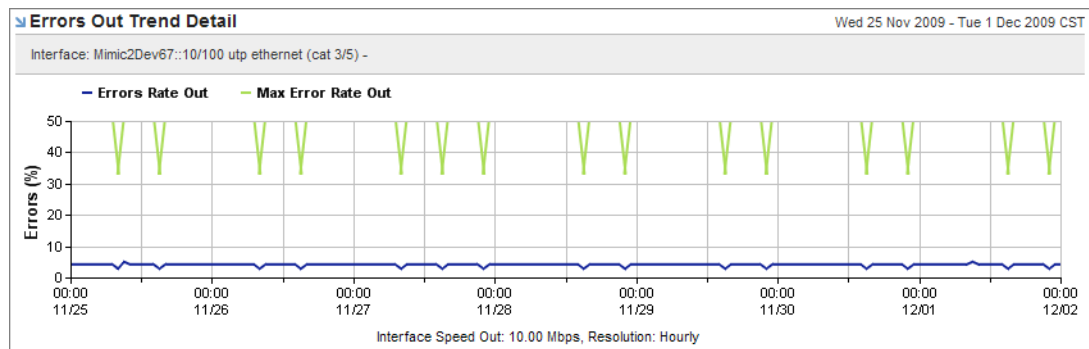
Displays the average inbound and outbound error rates (percentages) for an interface over the selected period.



- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - % Errors In: Inbound error rate (percentage) for the interface
 - % Errors Out: Outbound error rate (percentage) for the interface
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Interface Errors/Discards Report](#).

Errors Out Trend Detail

Displays the average outbound error rate on an interface over a selected period compared to the maximum value observed for the roll-up data.



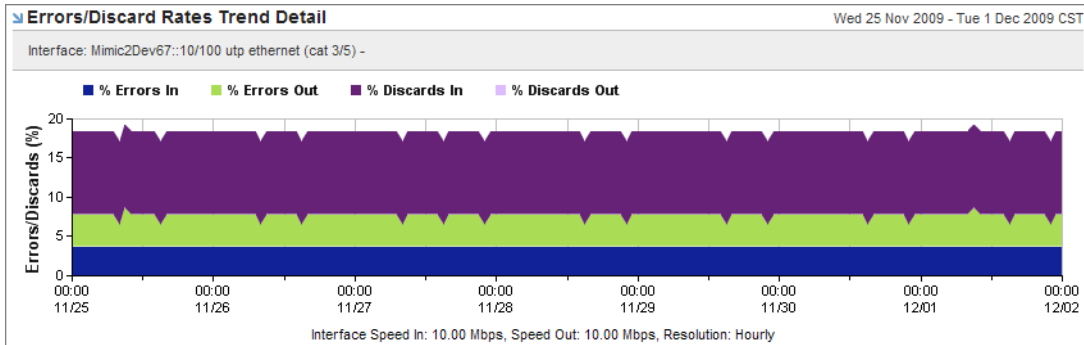
- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Error Rate Out: Average outbound error rate (percentage) for the interface
 - Max Error Rate Out: Maximum outbound error rate observed

Note: Maximum values are calculated using rollup data and cannot be displayed when the resolution is set to the poll rate.

- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Interface Errors/Discards Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Interface Capacity report.

Errors/Discards Rates Trend Detail

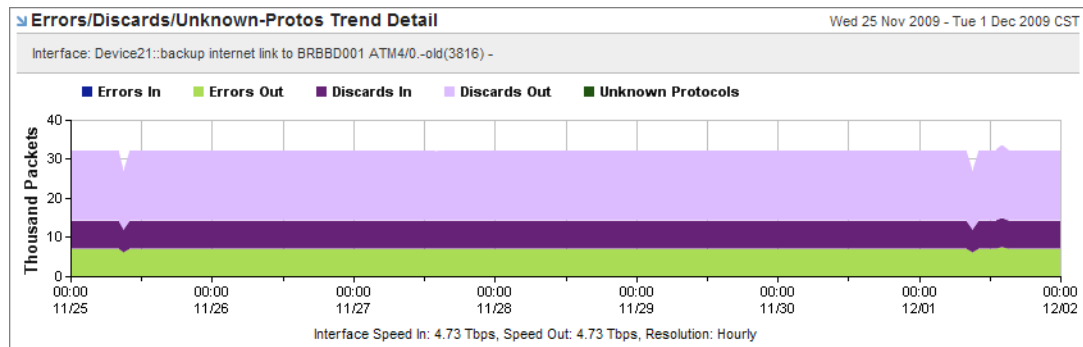
Displays the inbound and outbound error and discard rates (percentages) for an interface over the selected period.



- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - % Errors In: Inbound error rate (percentage) for the interface
 - % Errors Out: Outbound error rate (percentage) for the interface
 - % Discards In: Inbound discard rate (percentage) for the interface
 - % Discards Out: Outbound discard rate (percentage) for the interface
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Interface QoS report.

Errors/Discards/Unknown-Protos Trend Detail

Displays the number of errored and discarded packets (inbound and outbound), and the volume of unknown protocols, for an interface over the selected period.



- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Errors In: Number of errored inbound packets for the interface
 - Errors Out: Number of errored outbound packets for the interface
 - Discards In: Number of discarded inbound packets for the interface
 - Discards Out: Number of discarded outbound packets for the interface
 - Unknown Protocols: Number of packets with an unknown protocol
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Interface Availability Distribution (Low to High)

Displays availability statistics for interfaces within a reporting group or managed object during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

Interface Availability Distribution		Wed 25 Nov 2009 - Tue 1 Dec 2009 CST		
Date/Time ▲	0-90%	90-99.999%	99.999-100%	
Wed 25 November	195 / 60.37%	23 / 7.12%	105 / 32.51%	
Thu 26 November	195 / 60.37%	23 / 7.12%	105 / 32.51%	
Fri 27 November	195 / 60.37%	23 / 7.12%	105 / 32.51%	
Sat 28 November	195 / 60.37%	23 / 7.12%	105 / 32.51%	
Sun 29 November	195 / 60.37%	26 / 8.05%	102 / 31.58%	
Mon 30 November	195 / 60.37%	23 / 7.12%	105 / 32.51%	
Tue 01 December	195 / 60.19%	24 / 7.41%	105 / 32.41%	

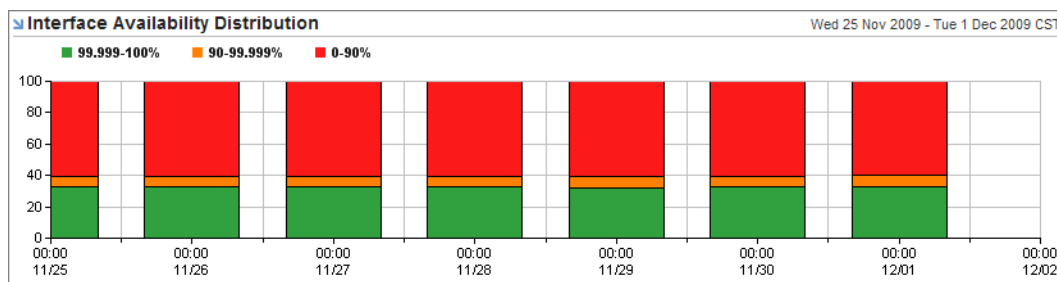
- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.

- **Data:** The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-90%: Number and percentage of availability values of 90% or less.
 - 90-99.999%: Number and percentage of availability values between 90 and 99.999%.
 - 99.999-100%: Number and percentage of availability values between 99.999 and 100%.
- **Styles:** This view can be displayed as stacked bar chart or table.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Interface Availability Distribution (High to Low)

Displays availability statistics for interfaces within a reporting group or managed object during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

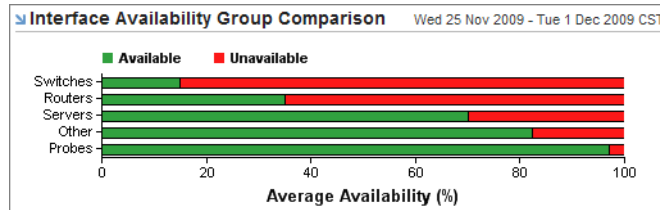


- **Context:** This view requires a selected reporting group, device, server, router, or switch to be displayed.
- **Data:** The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 99.999-100%: Percentage of availability values between 99.999 and 100%.
 - 90-99.999%: Percentage of availability values between 90 and 99.999%.
 - 0-90%: Percentage of availability values of 90% or less.
- **Styles:** This view can be displayed as stacked bar chart or table.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- **Standard NetQoS Performance Center reports:** This view is included in the Router Interfaces report and the Switch Interfaces report.

Interface Availability Group Comparison

Compares the overall availability, by sub-group, for interfaces in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

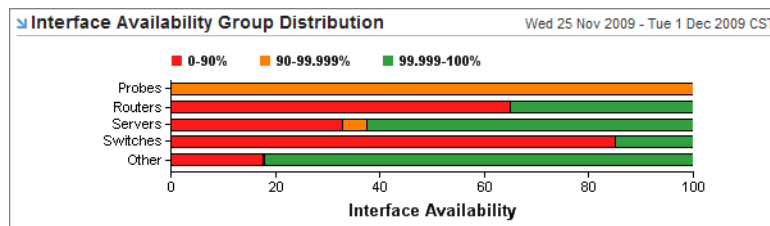


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Available: Average availability value
 - Unavailable: Value calculated by subtracting the average availability from 100
- Styles: This view can be displayed as bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Interface Availability Group Distribution

Displays average availability, by sub-group, for interfaces within a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-90%: Number and percentage of availability values of 90% or less.
 - 90-99.999%: Number and percentage of availability values between 90 and 99.999%.
 - 99.999-100%: Number and percentage of availability values between 99.999 and 100%.
- Styles: This view can be displayed as stacked bar chart or table.

- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Interface Availability Scorecard

Displays an overview of the average availability, by month or date, of interfaces across multiple groups or subgroups. You can select a goal range for the values to determine how the values in the scorecard are displayed.

Scorecard views display monthly performance data for the previous six month or seven week period by sub-group, for the selected group. Scorecards are high-level indicators of whether or not measured resources are meeting service-level goals. These views incorporate check marks and exclamation points as visual indicators to enhance quick understanding.

Interface Availability Scorecard									
Sun 8 Nov 2009 - Sat 14 Nov 2009 CST									
Group ▲	Target	Sep 27	Oct 4	Oct 11	Oct 18	Oct 25	Nov 1	Nov 8	Average
- Routers	>= 98.00	6.642	6.642	6.717	7.492	7.493	7.747	7.493	7.178
Midwest	>= 98.00	0.811	0.811	0.903	0.811	0.811	1.090	0.811	0.864
Northeast	>= 98.00	89.130	89.130	88.915	89.124	89.130	89.130	89.130	89.099
Northwest	>= 98.00	55.556	55.556	55.556	60.000	60.000	60.000	60.000	58.621
Southeast	>= 98.00	100.000	100.000	99.743	100.000	100.000	100.000	99.970	99.971
Southwest	>= 98.00	50.000	50.000	50.084	49.975	50.000	50.000	50.000	50.009

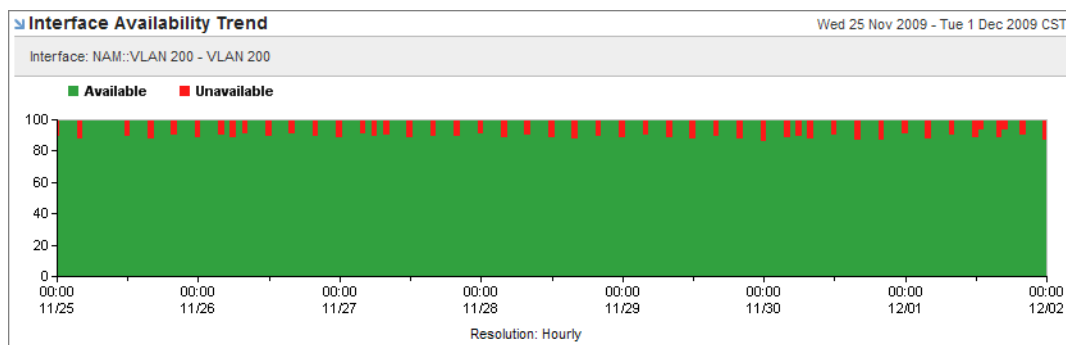
- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant.

This scorecard view uses a default target percentage of 98.0, so that sub-groups with an average availability below that target are displayed with a red exclamation point to indicate that the item falls below the target. You can modify this target value in the Custom View Wizard to meet your organization's service level goals.

- Styles: This view can be displayed as table only.
- Standard NetVoyant reports: This view is included in the [Scorecards Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Scorecards report.

Interface Availability Trend

Displays the availability and unavailability percentages for an interface over the selected period.



-
- **Data:** The metric used to render this view is `ifstats`, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expression:
 - **Available:** Availability as a percentage (`ifuptime/ifduration`).
 - **Unavailability:** Percentage value calculated by subtracting the availability from 100%.
 - **Context:** This view requires a selected interface to be displayed.
 - **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
 - **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.
 - **Standard NetQoS Performance Center reports:** This view is included in the Interface Capacity report.

Interface Details

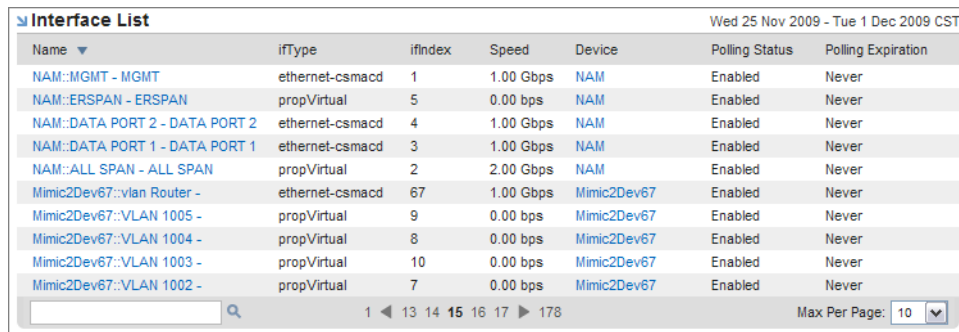
Displays detailed information for an interface.

- **Context:** This view requires a selected interface to be displayed.
- **Data:** This view uses multiple metrics to render property information for the managed object. This view includes values for the following attributes:
 - **Name:** Interface name as defined by Poll Instance Name template for the Interface Statistics dataset in the NetVoyant console.
 - **Description:** Interface description as defined by Poll Instance Description template for the Interface Statistics dataset in the NetVoyant console.
 - **Device sysName:** Device name as identified in the `sysName` OID on the device.
 - **Device sysDescr:** Device description as identified in the `sysDescr` OID on the device.
 - **Polling Enabled:** Whether polling is enabled for the device. When polling is enabled, NetVoyant gathers data for the device.
 - **Polling Station:** NetVoyant server that polls the device for SNMP statistics. In a distributed configuration, this is the poller that polls the device. In a standalone configuration, the poller is the Master console.
 - **ifIndex:** Index for the interface's SNMP `ifEntry` table
 - **ifDescr:** Description of the interface as defined by the `ifDescr` field in the SNMP `ifEntry` table.
 - **ifType:** Interface type as defined by the `ifType` field in the SNMP `ifEntry` table.
 - **Interface Type:** Interface's type as defined by the assigned class/model in the NetVoyant console.
 - **ifPhysAddress:** Physical address of the interface according to the SNMP `ifEntry` table
 - **Discovered Speed:** Interface speed as defined by the `ifSpeed` field in the SNMP `ifEntry` table
 - **Poll Rate:** Poll rate (interval) for the interface
 - **Properties:** Properties configured on the interface
 - **Configured Speed In:** Interface inbound speed as defined by the `ifSpeed_in` field in the SNMP `ifEntry` table. This setting can be used to calculate usage for the inbound direction.
 - **Configured Speed Out:** Interface outbound speed as defined by the `ifSpeed_out` field in the SNMP `ifEntry` table. This setting can be used to calculate usage for the outbound direction.
- **Styles:** This view can be displayed as a table only.

- Standard NetVoyant reports: This view is included in the [Interface Details Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Interface Details report.

Interface List

Displays the interfaces in a reporting group or managed object. The information presented is similar to what is displayed when you perform an interface search. This view lets you drill in to more information about an individual interface.

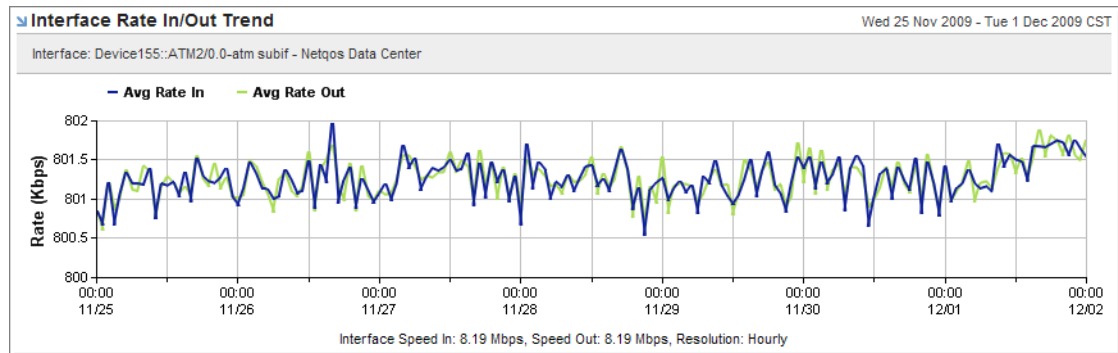


Name	ifType	ifIndex	Speed	Device	Polling Status	Polling Expiration
NAM::MGMT - MGMT	ethernet-csmacd	1	1.00 Gbps	NAM	Enabled	Never
NAM::ERSPAN - ERSPAN	propVirtual	5	0.00 bps	NAM	Enabled	Never
NAM::DATA PORT 2 - DATA PORT 2	ethernet-csmacd	4	1.00 Gbps	NAM	Enabled	Never
NAM::DATA PORT 1 - DATA PORT 1	ethernet-csmacd	3	1.00 Gbps	NAM	Enabled	Never
NAM::ALL SPAN - ALL SPAN	propVirtual	2	2.00 Gbps	NAM	Enabled	Never
Mimic2Dev67::vlan Router -	ethernet-csmacd	67	1.00 Gbps	Mimic2Dev67	Enabled	Never
Mimic2Dev67::VLAN 1005 -	propVirtual	9	0.00 bps	Mimic2Dev67	Enabled	Never
Mimic2Dev67::VLAN 1004 -	propVirtual	8	0.00 bps	Mimic2Dev67	Enabled	Never
Mimic2Dev67::VLAN 1003 -	propVirtual	10	0.00 bps	Mimic2Dev67	Enabled	Never
Mimic2Dev67::VLAN 1002 -	propVirtual	7	0.00 bps	Mimic2Dev67	Enabled	Never

- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: This view uses multiple metrics to render property information for the managed object. This view includes values for the following attributes:
 - Name: The interface's name as defined by Poll Instance Name template for the Interface Statistics dataset in the NetVoyant console.
 - Type: The interface type as defined by the assigned class/model in the NetVoyant console.
 - ifIndex: The index for the interface SNMP ifEntry table
 - Speed: The interface speed as defined by the ifSpeed field in the SNMP ifEntry table
 - Device: The device name as identified in the sysName OID on the device
 - Polling Status: The device current polling status, which can be one of the following: Enabled, Disabled, Manually Disabled, Auto-Disabled, Expiring, Off-line, Out-of-scope.
 - Polling Expiration: When interface status is Auto-disabled or Out-of-scope, this is the date and time of its last poll instance/interface expiration. Each dataset has a setting for poll instance expiration. When NetVoyant determines that a poll instance or interface is out-of-scope or unresponsive, its expiration clock starts and elapses according to the number of days in the dataset. When it expires, the poll instance or interface does not exist for that device.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Router Details report and the Switch Details report

Interface Rate In/Out Trend

Displays the average inbound and outbound observed rate for an interface over a selected period.

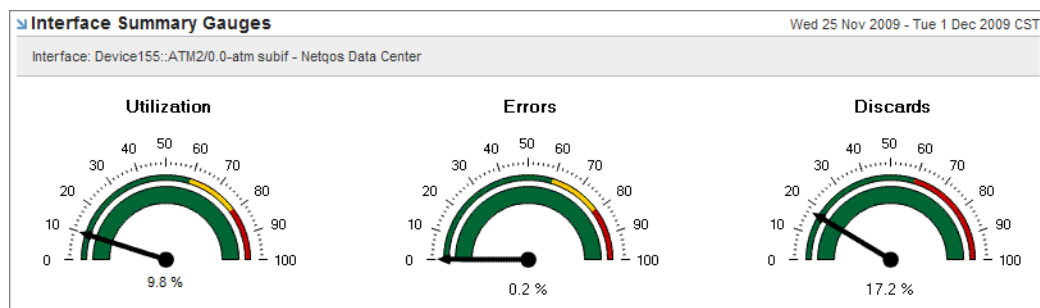


- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avg Rate In: Average inbound rate (Kbps) for the interface
 - Avg Rate Out: Average outbound rate (Kbps) for the interface
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Interface Volume and Bandwidth Report](#).

Interface Summary Gauges

Displays the performance index compared to a baseline, the percentage of packets that experience errors, and the percentage of packets that are discarded on interfaces in a group.

Gauge views are designed to provide a high-level indication of desirable and undesirable numbers according to baselines and thresholds.



Note: This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.

Context: This view requires a selected reporting group or interface to be displayed.

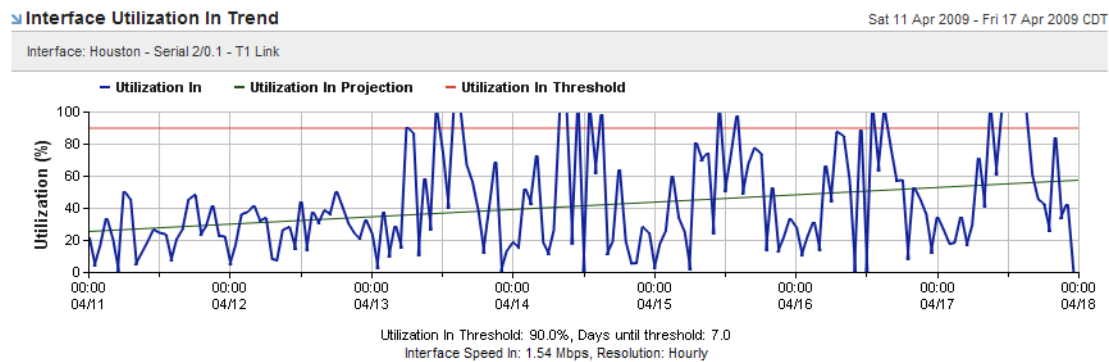
Styles: This view can be displayed as gauge chart only.

Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Interface Utilization In Trend

Displays the inbound usage for an interface over the selected period. For hourly and daily periods, this view also displays the 30-day rolling baseline. And for periods of one week or more, it displays the inbound usage projection values.

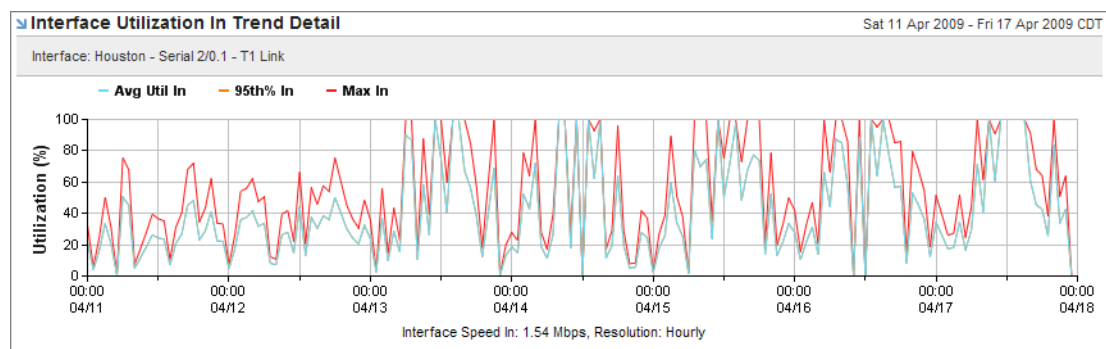
Note: The 30-day moving baseline is calculated using the value for each hour of the day and the percentage usage for each hour of the day compared to the theoretical maximum (threshold) for an interface over the selected period. The effects of a threshold change in an alarm profile assigned to the interface are not seen until NetVoyant recalculates the rolling baselines (midnight, by default).



- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Interface Utilization In Trend Detail

Displays the inbound usage (average maximum, 95th percentile, and average) for an interface over a selected period.



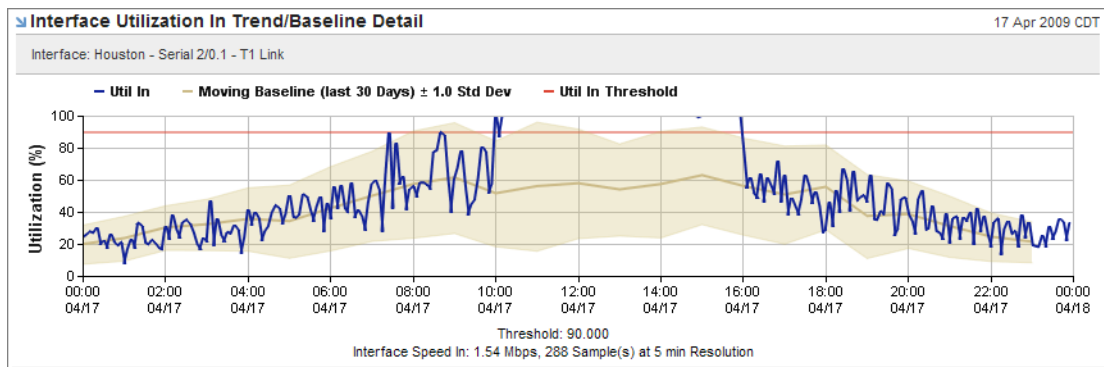
- Context: This view requires a selected interface to be displayed.

- **Data:** The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - **Avg Util In:** The average inbound usage percentage on the interface
 - **95th % In:** The average inbound usage omitting the data outside of the 95th percentile. The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data. This expression is displayed only when the view resolution is greater than the poll rate.
 - **Max In:** The average maximum inbound usage observed for the rollup period. This expression is displayed only when the view resolution is greater than the poll rate.
- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is included in the Interface Utilization report.

Interface Utilization In Trend/Baseline Detail

Displays the average maximum inbound usage, 95th percentile inbound usage, and average inbound usage for an interface over a selected period compared to the average inbound usage baseline or projection.

Note: The 30-day moving baseline is calculated using the value for each hour of the day and the percentage usage for each hour of the day compared to the theoretical maximum (threshold) for an interface over the selected period. The effects of a threshold change in an alarm profile assigned to the interface are not seen until NetVoyant recalculates the rolling baselines (midnight, by default).

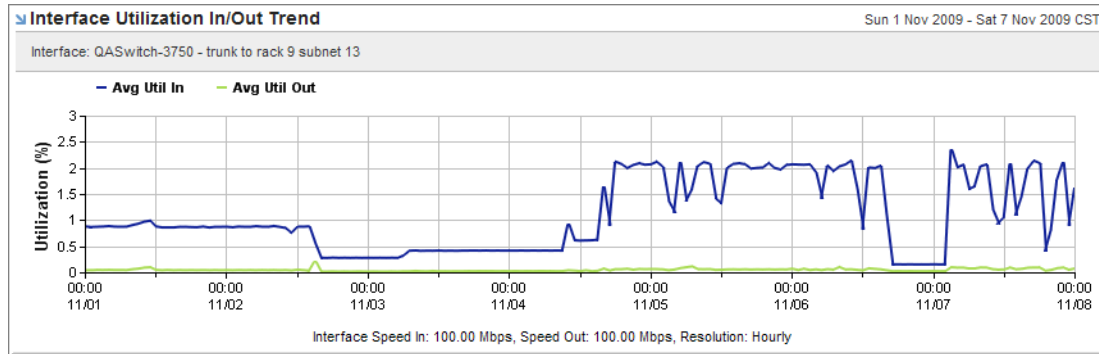


- **Context:** This view requires a selected interface to be displayed.
- **Data:** The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - **Max Util In:** The average maximum inbound usage observed for the rollup period. This expression is displayed only when the view resolution is greater than the poll rate.
 - **95th % Util In:** The average inbound usage omitting the data outside of the 95th percentile. The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data. This expression is displayed only when the view resolution is greater than the poll rate.
 - **Avg Util In:** The average inbound usage percentage on the interface
- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.

- Standard NetVoyant reports: This view is included in the Interface Summary report and Interface Utilization report.
- Standard NetQoS Performance Center reports: This view is included in the Interface Capacity report and the Interface QoS report.

Interface Utilization In/Out Trend

Displays the inbound and outbound average usage for an interface over the selected period.

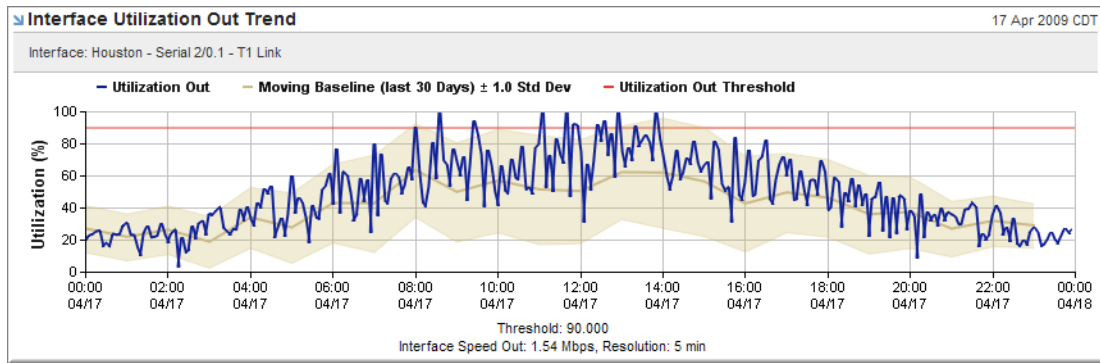


- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avg Util In: The average inbound usage percentage on the interface
 - Avg Util Out: The average outbound usage percentage on the interface
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Interface Utilization Out Trend

Displays the outbound usage for an interface over the selected period. For hourly and daily periods, this view also displays the 30-day rolling baseline. And for periods of one week or more, it displays the inbound usage projection values.

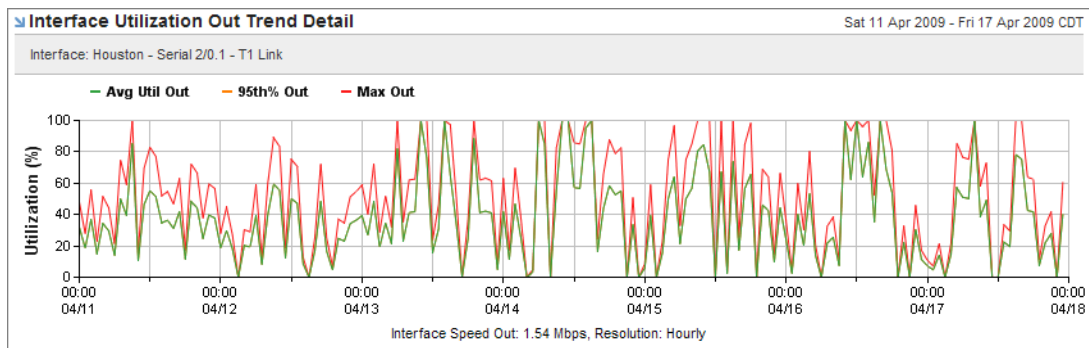
Note: The 30-day moving baseline is calculated using the value for each hour of the day and the percentage usage for each hour of the day compared to the theoretical maximum (threshold) for an interface over the selected period. The effects of a threshold change in an alarm profile assigned to the interface are not seen until NetVoyant recalculates the rolling baselines (midnight, by default).



- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Interface Utilization Report](#).

Interface Utilization Out Trend Detail

Displays the outbound usage (average maximum, 95th percentile, and average) for an interface over a selected period.

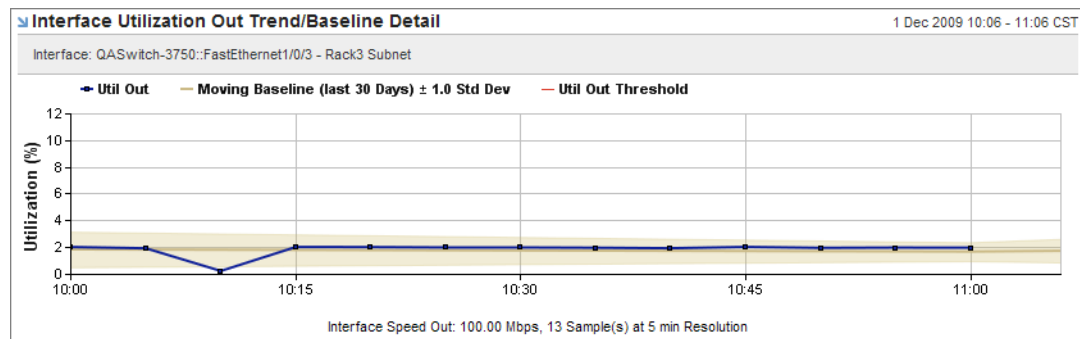


- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avg Util Out: The average outbound usage percentage on the interface
 - 95th% Out: The average outbound usage omitting the data outside of the 95th percentile. The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data. This expression is displayed only when the view resolution is greater than the poll rate.
 - Max Out: The average maximum outbound usage observed for the rollup period. This expression is displayed only when the view resolution is greater than the poll rate.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Interface Utilization Out Trend/Baseline Detail

Displays the average maximum outbound usage, 95th percentile outbound usage, and average outbound usage for an interface over a selected period compared to the average outbound usage baseline or projection.

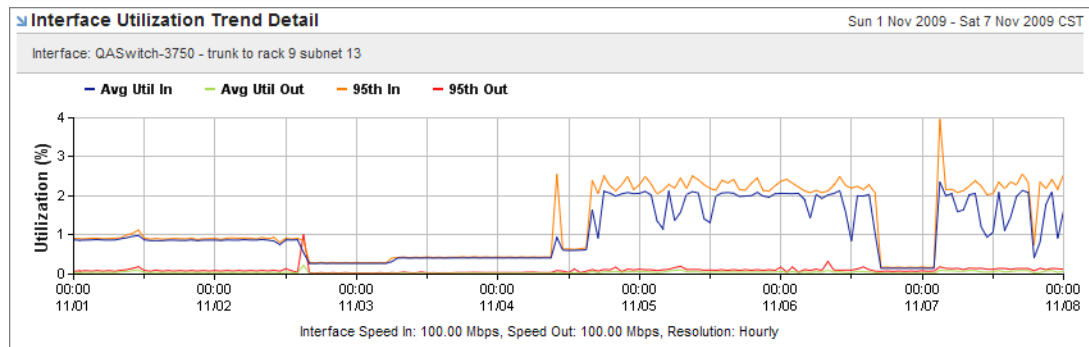
Note: The 30-day moving baseline is calculated using the value for each hour of the day and the percentage usage for each hour of the day compared to the theoretical maximum (threshold) for an interface over the selected period. The effects of a threshold change in an alarm profile assigned to the interface are not seen until NetVoyant recalculates the rolling baselines (midnight, by default).



- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Max Util Out: The average maximum outbound usage observed for the rollup period. This expression is displayed only when the view resolution is greater than the poll rate.
 - 95th % Util Out: The average outbound usage omitting the data outside of the 95th percentile. The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data. This expression is displayed only when the view resolution is greater than the poll rate.
 - Avg Util In: The average inbound usage percentage on the interface
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the Interface Utilization report.
- Standard NetQoS Performance Center reports: This view is included in the Interface Capacity report and the Interface QoS report.

Interface Utilization Trend Detail

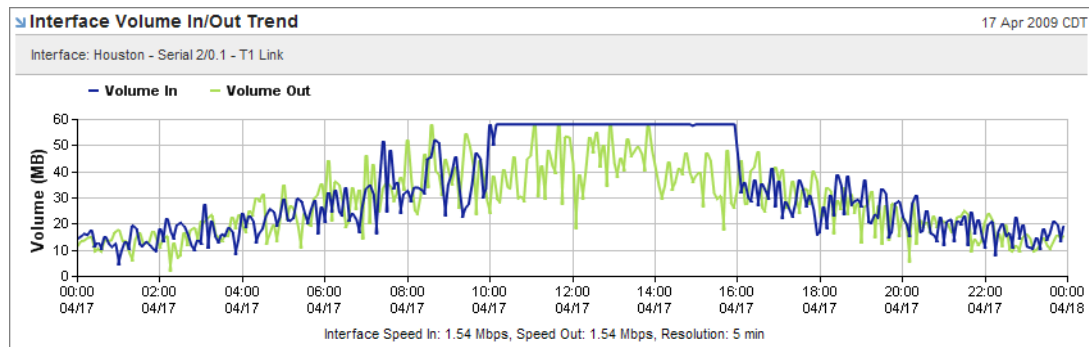
Displays the inbound and outbound usage (average and 95th percentile) for an interface over a selected period.



- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avg Util In: The average inbound usage percentage on the interface
 - Avg Util Out: The average outbound usage percentage on the interface
 - 95th% In: The average inbound usage omitting the data outside of the 95th percentile. The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data. This expression is displayed only when the view resolution is greater than the poll rate.
 - 95th% Out: The average outbound usage omitting the data outside of the 95th percentile. This expression is displayed only when the view resolution is greater than the poll rate.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Interface Volume In/Out Trend

Displays the average inbound and outbound volume (MB) for an interface over the selected period.

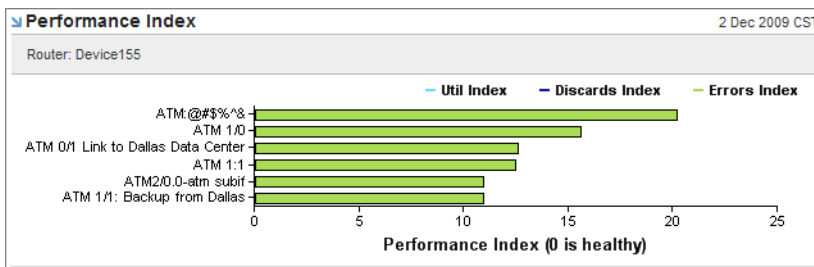


- Context: This view requires a selected interface to be displayed.

- **Data:** The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Volume In: The inbound volume (MB) for the interface
 - Volume Out: The outbound volume (MB) on the interface
- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is included in the [Interface Volume and Bandwidth Report](#).

Performance Index

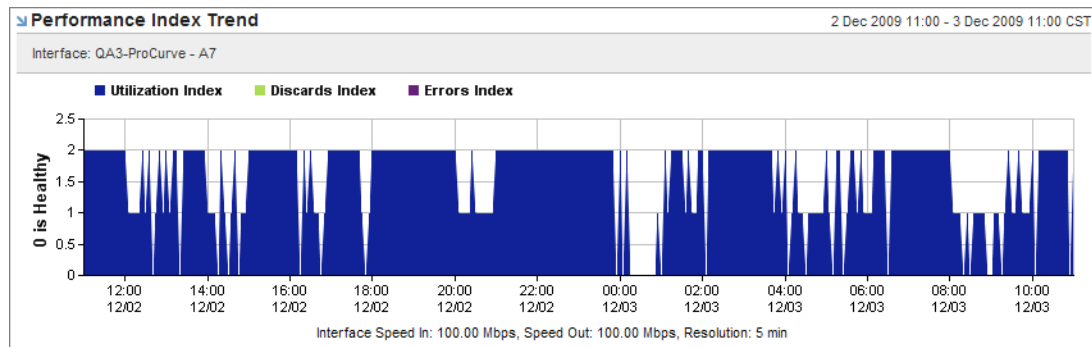
Displays the performance index for each frame relay circuit in a reporting group during the selected period. The performance index is calculated from the usage and the congestion on a circuit. A usage and congestion index of zero indicates a “healthy” circuit.



- **Context:** This view requires a selected reporting group, device, server, router, or switch to be displayed.
- **Data:** The metric used to render this view is frcircuit, which corresponds to the Frame Relay Circuit Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Util Index: Average usage weighted against the baseline and threshold values
 - Discards Index: Average discard rate weighted against the baseline and threshold values
 - Errors Index: Average error rate weighted against the baseline and threshold values
- **Styles:** This view can be displayed as a bar chart, stacked bar chart, or table.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- **Standard NetQoS Performance Center reports:** This view is included in the Router Interfaces report and the Switch Interfaces report.

Performance Index Trend

Displays the performance index for an interface during the selected period. The performance index is calculated from the usage, errors, and discards on an interface.



- Context: This view requires a selected interface to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization Index: Average usage weighted against the baseline and threshold values
 - Discards Index: Average discard rate weighted against the baseline and threshold values
 - Errors Index: Average error rate weighted against the baseline and threshold values
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Changes - Interface Utilization

Displays average inbound and outbound usage for those interfaces in a reporting group that have the highest change in usage over the past month. The view also shows the current month and previous month's 95th percentile usage. The amount of change in usage is calculated from the change in the 95th percentile of data.

Note: The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.

Top Changes - Interface Utilization 6 Oct 2009 - 4 Nov 2009 EST

Name	Metric	Current Month Average	Current Month 95th %	Previous Month 95th %	% Change of 95th %
nclab3sw1 - FastEthernet0/22	Input Interface Utilization	0.30%	1.36%	2.30%	-68.6
NCCM70P.netqos.local - eth0	Output Interface Utilization	0.01%	0.31%	0.11%	65.7
nclab3sw1 - FastEthernet0/23	Input Interface Utilization	0.03%	0.40%	0.15%	62.9
nclab3sw1 - FastEthernet0/13	Input Interface Utilization	1.61%	7.68%	5.75%	25.1
nclab3sw1 - Uplink to production Dell Layer3	Output Interface Utilization	1.85%	7.88%	5.97%	24.3
nclab3sw1 - FastEthernet0/23	Output Interface Utilization	0.03%	0.26%	0.22%	15.9
nclab_rtr_01 - Serial0/0/1	Input Interface Utilization	0.34%	0.95%	1.07%	-12.5
nclab3sw1 - FastEthernet0/14	Output Interface Utilization	0.10%	1.72%	1.51%	11.9
nclab3sw1 - FastEthernet0/22	Output Interface Utilization	0.19%	0.89%	0.81%	9.3
nclab_rtr_02 - Serial0/0/1	Output Interface Utilization	0.34%	1.31%	1.38%	-5.5

Search: Show Top: 10

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Input Interface Utilization or Output Interface Utilization
 - Current Month Average: Average value for the metric over the current reporting month
 - Current Month 95th %: Average value for the metric over the current reporting month using the 95th percentile data
 - Previous Month 95th %: Average value for the metric for the month previous to the current reporting month using the 95th percentile data
 - % Change of 95th %: Percentage change between the current month's 95th percentile value and the previous month's 95th percentile value
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Monthly Changes Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Monthly Changes report.

Top Deviation From Norm - Interface Errors/Discards

Displays the percentage of errors and discards for inbound and outbound traffic on those interfaces in a reporting group that have the highest deviation from the 30-day rolling baseline value for errors or discards. This view provides insight into areas experiencing rapid change.

Top Deviation from Normal views compare actual values (values during the selected period) to a calculated “normal” value and display those values that have deviated the most from that “normal” value. The “normal” values are calculated as averages using the past 30 days of baselines (generated for expressions as configured in the NetVoyant console). When you select a different period for a report, the “normal” is calculated differently. However, all are averages based on the hourly rollup values.

Top Deviation From Norm - Interface Errors/Discards					3 Nov 2009 - 2 Dec 2009 CST	
Name	Metric	Norm (%)	Actual (%)	Deviation (%)		
Mimic2Dev67 - 2/1	Output Errors (% Packets)	4.02%	4.03%		<div></div>	0.418
Mimic2Dev155 - 0	Input Errors (% Packets)	0.10%	0.10%	-0.093	<div></div>	
Device13 - Lab Backup	Input Errors (% Packets)	0.27%	0.27%		<div></div>	0.040
Device13 - cisco ls1010	Input Errors (% Packets)	0.21%	0.21%		<div></div>	0.040
Device13 - Link to Nowhere	Input Errors (% Packets)	0.17%	0.17%		<div></div>	0.039
Device13 - Test Link	Input Errors (% Packets)	0.20%	0.20%		<div></div>	0.039
Device13 - Netqos Data Center	Input Errors (% Packets)	0.17%	0.17%		<div></div>	0.037
Device11 - Fa2/0	Input Errors (% Packets)	0.14%	0.14%		<div></div>	0.034
Device209 - Lab Backup	Input Errors (% Packets)	0.27%	0.27%		<div></div>	0.032
Device209 - Test Link	Input Errors (% Packets)	0.20%	0.20%		<div></div>	0.032

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Output Discards, Input Discards, Output Errors, or Input Errors
 - Normal: Normal value calculated from a 30-day rolling baseline
 - Actual: Average percentage for the metric during the selected period
 - Deviation (%): Value of the metric calculated as a percentage above or below the normal value
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Deviation from Normal Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Deviation from Normal report.

Top Deviation From Norm - Interface Utilization

Displays the average usage for inbound and outbound traffic on those interfaces in a reporting group that have the highest deviation from the 30-day rolling baseline value for usage. This view provides insight into areas experiencing rapid change.

Top Deviation from Normal views compare actual values (values during the selected period) to a calculated “normal” value and display those values that have deviated the most from that “normal” value. The “normal” values are calculated as averages using the past 30 days of baselines (generated for expressions as configured in the NetVoyant console). When you select a different period for a report, the “normal” is calculated differently. However, all are averages based on the hourly rollup values.

Top Deviation From Norm - Interface Utilization Thu 26 Nov 2009 - Wed 2 Dec 2009 CST

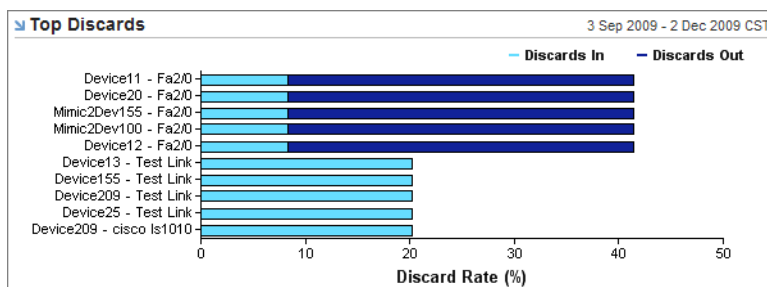
Name	Metric	Normal	Actual	Deviation (%)
QASwitch-3750 - Rack4 Subnet	Input Interface Utilization	0.02%	0.17%	934.7
QASwitch-3750 - trunk to rack 8 subnet 11	Input Interface Utilization	0.07%	0.16%	131.5
QASwitch-3750 - Rack3 Subnet	Input Interface Utilization	0.40%	0.81%	101.4
QASwitch-3750 - trunk to rack 9 subnet 13	Input Interface Utilization	1.30%	0.12%	-90.7
QASwitch-3750 - Trunk connection to QAOffices-switch in IT Closet	Output Interface Utilization	0.41%	0.11%	-73.8
QASwitch-3750 - Mimic 2 Subnet (.40.0 - .43.0)	Output Interface Utilization	0.46%	0.77%	66.4
QASwitch-3750 - trunk to rack 6	Output Interface Utilization	1.11%	0.45%	-59.8
QASwitch-3750 - Internal Point-to-Point connection to 2821 gig 1/0	Output Interface Utilization	0.27%	0.12%	-57.6
QASwitch-3750 - Trunk connection to QASwitch-3500-4 in Rack 1	Input Interface Utilization	2.84%	1.46%	-48.7
QASwitch-3750 - Mimic 1 Subnet (.8.0 - .9.0)	Output Interface Utilization	0.16%	0.22%	38.6

Show Top: 10

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Output Interface Utilization or Input Interface Utilization
 - Normal: Normal usage calculated from a 30-day rolling baseline
 - Actual: Average percentage for the metric during the selected period
 - Deviation (%): Value of the metric calculated as a percentage above or below the normal value
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the Top Deviation from Normal report.
- Standard NetQoS Performance Center reports: This view is included in the Top Deviation from Normal report.

Top Discards

Displays the discard rate for inbound and outbound traffic on the interfaces in a reporting group or managed object with the highest total discard rates during the selected period.

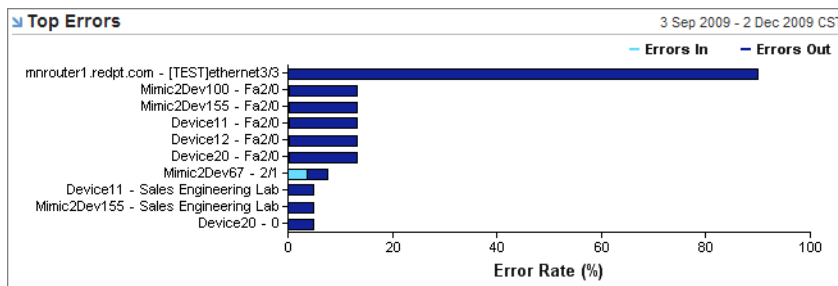


- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:

- Discards In: Percentage of discards for inbound traffic on the interface
- Discards Out: Percentage of discards for outbound traffic on the interface
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Router Summary Report](#), [Operations Summary Graphs Report](#), [Device Performance Report](#), [Server Performance Report](#), [Router Performance Report](#), and [Switch Performance Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Performance report, Router Interfaces report, Switch Performance report, Switch Interfaces report, Top Issues report, Routers/Switches Overview report, and Router Summary report.

Top Errors

Displays the error rate for inbound and outbound traffic on the interfaces in a reporting group or managed object with the highest total error rates during the selected period.



- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Errors In: Percentage of errors for inbound traffic on the interface
 - Errors Out: Percentage of errors for outbound traffic on the interface
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Router Summary Report](#), [Operations Summary Graphs Report](#), [Device Performance Report](#), [Server Performance Report](#), [Router Performance Report](#), and [Switch Performance Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Performance report, Router Interfaces report, Switch Performance report, Switch Interfaces report, Top Issues report, Routers/Switches Overview report, and Router Summary report.

Top Interface Errors/Discards

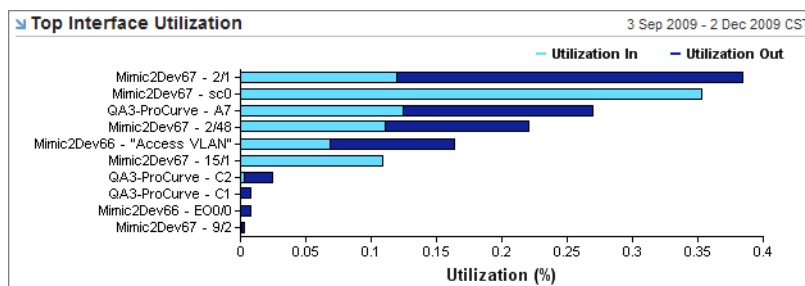
Compares discard and error rates for inbound and outbound traffic on the interfaces in a reporting group or managed object with the highest total loss rates during the selected period.

Top Interface Errors/Discards						3 Sep 2009 - 2 Dec 2009 CST
Name	Discard Rate In	Discard Rate Out	Error Rate In	Error Rate Out	Loss Indicator	
mnrouter1.redpt.com - [TEST] ethernet3/3	0.00%	0.00%	0.00%	89.97%	89.97	<div><div></div></div>
Mimic2Dev155 - Fa2/0	8.36%	33.04%	0.14%	13.22%	54.75	<div><div></div></div>
Mimic2Dev100 - Fa2/0	8.36%	33.04%	0.14%	13.22%	54.75	<div><div></div></div>
Device11 - Fa2/0	8.36%	33.04%	0.14%	13.22%	54.75	<div><div></div></div>
Device20 - Fa2/0	8.36%	33.04%	0.14%	13.22%	54.75	<div><div></div></div>
Device12 - Fa2/0	8.36%	33.04%	0.14%	13.22%	54.75	<div><div></div></div>
Device209 - cisco ls1010	20.16%	0.00%	0.40%	0.00%	20.57	<div><div></div></div>
Device155 - cisco ls1010	20.16%	0.00%	0.40%	0.00%	20.56	<div><div></div></div>
Device13 - cisco ls1010	20.16%	0.00%	0.40%	0.00%	20.56	<div><div></div></div>
Device25 - cisco ls1010	20.16%	0.00%	0.40%	0.00%	20.56	<div><div></div></div>

- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Discard Rate In: Percentage of errors for inbound traffic on the interface
 - Discard Rate Out: Percentage of errors for outbound traffic on the interface
 - Error Rate In: Percentage of errors for inbound traffic on the interface
 - Error Rate Out: Percentage of errors for outbound traffic on the interface
 - Loss Indicator: Total loss rate calculated by adding the inbound and outbound error and discard rates
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Operations Summary Report](#), [Device Capabilities Report](#), [Router Capabilities Report](#), and [Switch Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Enterprise Summary report.

Top Interface Utilization

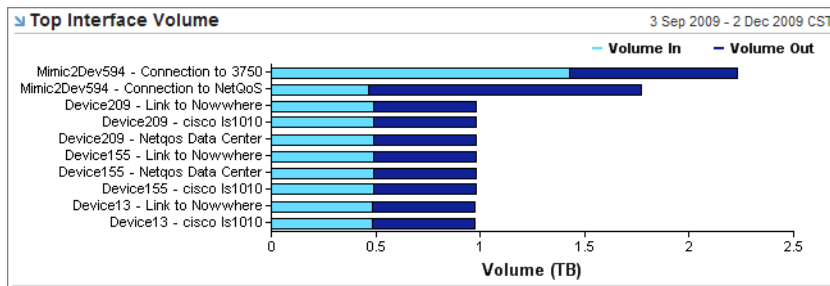
Displays the usage for inbound and outbound traffic on the interfaces in a reporting group or managed object with the highest total usage rates during the selected period.



- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization In: Usage percentage for inbound traffic on the interface
 - Utilization Out: Usage percentage for outbound traffic on the interface
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Operations Summary Graphs Report](#), [Device Performance Report](#), [Router Performance Report](#), and [Switch Performance Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Routers/Switches Overview report.

Top Interface Volume

Displays the volume of inbound and outbound traffic on the interfaces in a reporting group or managed object with the highest total usage rates during the selected period.



- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Volume In: Volume of inbound traffic on the interface
 - Volume Out: Volume of outbound traffic on the interface
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Operations Summary Graphs Report](#), [Device Performance Report](#), [Router Performance Report](#), and [Switch Performance Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Routers/Switches Overview report, the Router Interfaces report, and the Switch Interfaces report.

Top Interfaces

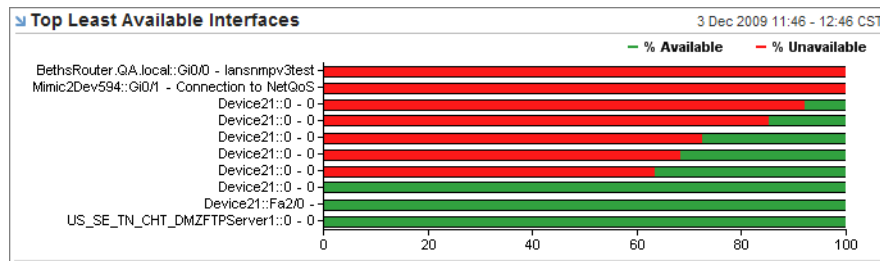
Displays the inbound and outbound usage, interface speed, and inbound and outbound observed rates on the interfaces in a reporting group or managed object with the highest inbound usage during the selected period.

Top Interfaces						3 Dec 2009 11:38 - 12:38 CST	
Name	Util In	Util Out	Speed	Rate In	Rate Out		
Device155::ATM 1/1: Backup from Dallas - Link to Nowhere	9.78%	9.78%	8.19 Mbps	801.58 Kbps	801.42 Kbps		
Device155::ATM 0/1 Link to Dallas Data Center - cisco ls1010	9.78%	9.79%	8.19 Mbps	801.51 Kbps	801.64 Kbps		
Device155::ATM2/0.0-atm subif - Netqos Data Center	9.78%	9.78%	8.19 Mbps	801.21 Kbps	801.29 Kbps		
QASwitch-3750::FastEthernet1/0/1 - Rack1 Subnet	4.84%	0.02%	100.00 Mbps	4.84 Mbps	17.36 Kbps		
QASwitch-3750::FastEthernet1/0/9 - Mimic 2 Subnet (.40.0 - .43.0)	1.70%	0.67%	100.00 Mbps	1.70 Mbps	670.88 Kbps		
Device155::ATM 1:1 - Test Link	0.98%	0.98%	8.19 Mbps	80.13 Kbps	80.14 Kbps		
Device155::ATM 1/0 - Lab Backup	0.98%	0.98%	8.19 Mbps	80.12 Kbps	80.11 Kbps		
Device155::ATM: @#\$%^& - cisco ls1010	0.98%	0.98%	8.19 Mbps	80.11 Kbps	80.13 Kbps		
QASwitch-3750::FastEthernet1/0/16 - Trunk connection to QASwitch-3500-4 in Rack 1	0.94%	0.74%	100.00 Mbps	935.71 Kbps	740.44 Kbps		
Mimic2Dev156::FastEthernet1/15 - 0	0.72%	0.18%	100.00 Mbps	716.75 Kbps	183.03 Kbps		

- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Util In: Usage percentage for inbound traffic on the interface
 - Util Out: Usage percentage for outbound traffic on the interface
 - Speed: Speed for traffic on the interface
 - Rate In: Inbound rate (bps) for the interface
 - Rate Out: Outbound rate (bps) for the interface
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Operations Summary Report](#), [Operations Summary Graphs Report](#), [Device Capabilities Report](#), [Server Capabilities Report](#), [Router Capabilities Report](#), and [Switch Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the [Enterprise Summary report](#), [Router Interfaces report](#), and [Switch Interfaces report](#).

Top Least Available Interfaces

Displays the availability statistics for the interfaces in a reporting group or managed object with the highest unavailability percentages during the selected period.



- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - % Available: Percentage of time that the interface is up and running
 - % Unavailable: Percentage calculated by subtracting % Available from 100
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Top Issues report, Router Interfaces report, and Switch Interfaces report.

Top Least Available Interfaces (with Utilization)

Displays the availability, inbound usage, and outbound usage for the interfaces in a reporting group or managed object with the lowest availability percentages during the selected period.











Top Least Available Interfaces				3 Nov 2009 - 2 Dec 2009 CST	
Name	Availability ▲	In Utilization	Out Utilization		
BethsRouter.QA.local:Gi0/0 - lansnmpv3test	0.000%	0.00%	0.00%		
Mimic2Dev594:Gi0/1 - Connection to NetQoS	0.062%	0.00%	0.00%		
Device21::0 - 0	2.988%	0.00%	0.00%		
Device21::0 - 0	2.988%	0.00%	0.00%		
Device21::0 - 0	2.988%	0.00%	0.00%		
Device21::0 - 0	2.988%	0.00%	0.00%		
Device21::0 - 0	2.988%	0.00%	0.00%		
Device21::Fa2/0 -	97.009%	0.00%	0.00%		
Mimic2Dev594:Se0/0/0 -	99.938%	0.03%	0.03%		
Mimic2Dev594:Gi1/0 - Connection to 3750	99.938%	0.00%	0.00%		

- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:

- Available: Percentage of time that the interface is up and running
- In Utilization: Usage percentage for inbound traffic on the interface
- Out Utilization: Usage percentage for outbound traffic on the interface
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Enterprise Dashboard report.

Top Projections - Interface Utilization

Displays 30, 60, and 90-day projections for inbound or outbound usage for those interfaces in a reporting group with the highest usage growth rates.

Top Projections - Interface Utilization				5 Aug 2009 - 4 Nov 2009 CST		
Name	Metric	Last 90 Days ▾	30 Days	60 Days	90 Days	
QASwitch-3750 - SPAN DESTINATION	Output Interface Utilization	15.90% 	33.44%	40.47%	47.51%	
Device25 - Link to Nowwhere	Input Interface Utilization	9.81% 	9.81%	9.81%	9.82%	
Device25 - Link to Nowwhere	Output Interface Utilization	9.81% 	9.81%	9.81%	9.81%	
Device25 - cisco ls1010	Input Interface Utilization	9.81% 	9.81%	9.81%	9.82%	
Device25 - cisco ls1010	Output Interface Utilization	9.81% 	9.81%	9.81%	9.81%	
Device13 - Netqos Data Center	Output Interface Utilization	9.81% 	9.81%	9.81%	9.81%	
Device13 - Netqos Data Center	Input Interface Utilization	9.81% 	9.81%	9.81%	9.81%	
Device25 - Netqos Data Center	Input Interface Utilization	9.81% 	9.81%	9.81%	9.81%	
Device25 - Netqos Data Center	Output Interface Utilization	9.81% 	9.81%	9.81%	9.81%	
Device13 - Link to Nowwhere	Input Interface Utilization	9.81% 	9.81%	9.81%	9.81%	

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Input Interface Utilization or Output Interface Utilization
 - Last 90 Days: The usage growth rate calculated over the preceding 90 days
 - 30 Days: The projected usage increase 30 days from now
 - 60 Days: The projected usage increase 60 days from now
 - 90 Days: The projected usage increase 90 days from now
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the Top Projections report.
- Standard NetQoS Performance Center reports: This view is included in the Top Projections report.

Top Threshold Violations - Interfaces

Displays the maximum inbound and outbound usage, error rate, and discard rate for those interfaces in a reporting group with the highest duration values for threshold events during the selected period. Values that exceeded the threshold display in red.

The view also displays the number of unique threshold crossing events (Number of Unique Violations) observed during the selected period.

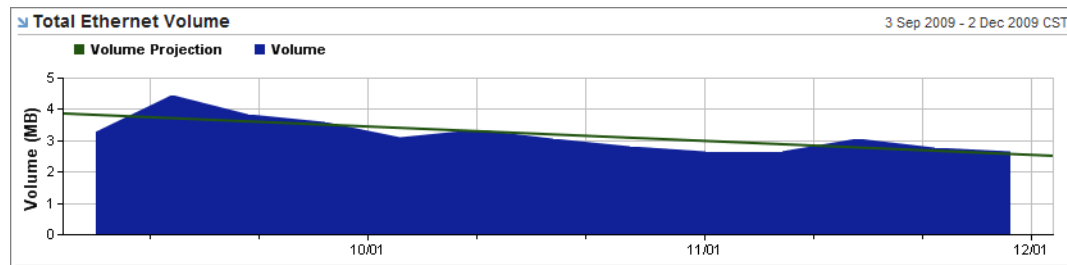
Note: Place the cursor over the usage value to display the threshold for the expression.

Top Threshold Violations - Interfaces								3 Sep 2009 - 2 Dec 2009 CST
Name	Util In (%)	Util Out (%)	Errors In	Errors Out	Discards In	Discards Out	Violation Duration (%) ▼	Number of Unique Violations
BethsRouter.QA.local::Gi0/0 - lannmpv3test	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	98.49%	18.25 K
Device21::0 - 0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	96.37%	17.72 K
Device21::0 - 0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	96.37%	17.72 K
Device21::0 - 0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	96.37%	17.72 K
Device21::Fa2/0 -	0.00%	0.00%	0.15%	13.30%	8.40%	33.23%	96.37%	11.94 K
Device21::Et1/0 - Sales Engineering Lab	0.00%	0.00%	0.12%	4.95%	0.02%	4.95%	96.37%	11.94 K
Device21::0 - 0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	96.36%	17.72 K
Device21::0 - 0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	96.36%	17.72 K
Device21::0 - 0	0.85%	0.22%	0.12%	4.95%	0.02%	4.95%	96.36%	11.94 K
Mimic2Dev594::Gr0 -	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	87.74%	4.54 K

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Util In: Maximum observed inbound usage
 - Util Out: Maximum observed outbound usage
 - Errors In: Maximum observed inbound error rate
 - Errors Out: Maximum observed outbound error rate
 - Discards In: Maximum observed inbound discard rate
 - Discards Out: Maximum observed outbound discard rate
 - Violation Duration (%): Total threshold event duration for the reporting period, as a percentage
 - Number of Unique Violation: Number of unique threshold events
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Threshold Violations Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Threshold Violations report and the Alerts and Violations report.

Total Ethernet Volume

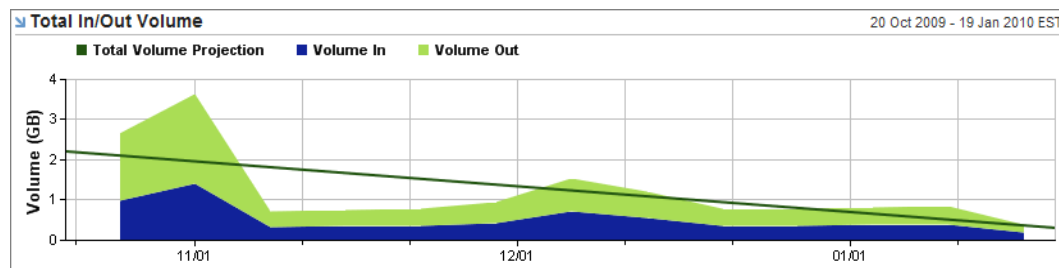
Displays the total volume for Ethernet interfaces in a reporting group during the selected period. This view also displays a total volume projection for periods of one week or more.



- Context: This view requires a selected reporting group to be displayed.
- Data:
 - The metric used to render this view is etherstats, which corresponds to the Ethernet ROM Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the volume projection is not displayed.
- Standard NetVoyant reports: This view is included in the [LAN Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the LAN Summary report.

Total In/Out Volume

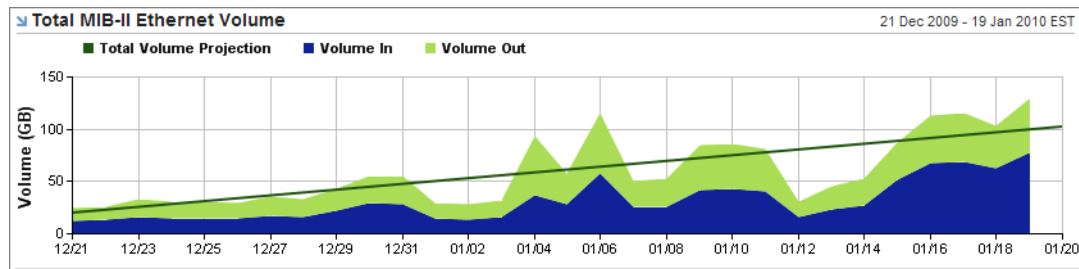
Displays the total volume of inbound and outbound traffic for interfaces in a reporting group during the selected period. This view also displays a total volume projection for periods of one week or more.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Volume In: Total volume of inbound traffic on the interfaces
 - Volume Out: Total volume of outbound traffic on the interfaces
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the volume projection is not displayed.
- Standard NetVoyant reports: This view is included in the [Management Summary Report](#), [Router Summary Report](#), and [Server Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Management Summary report, the Router Summary report, and the Server Summary report.

Total MIB-II Ethernet Volume

Displays the total inbound and outbound volumes on Ethernet interfaces in a reporting group over a selected period. This view also displays a total volume projection for periods of one week or more.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Volume In: Total volume of inbound traffic on the ethernet interfaces
 - Volume Out: Total volume of outbound traffic on the ethernet interfaces
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the volume projection is not displayed.
- Standard NetVoyant reports: This view is included in the [LAN Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the LAN Summary report.

Total Volume

Displays the total inbound and outbound volumes for the interfaces in a reporting group during a selected period.

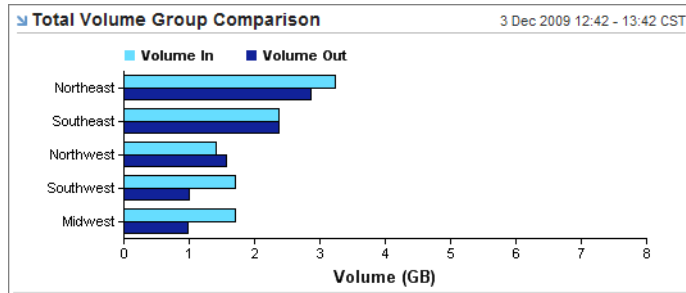
Total Volume		
3 Sep 2009 - 2 Dec 2009 CST		
Date/Time	Total Volume In	Total Volume Out
Sun 18 October	1.40 TB	164.27 GB
Sun 25 October	2.92 TB	288.61 GB
Sun 01 November	2.69 TB	87.06 GB
Sun 08 November	3.21 TB	75.42 GB
Sun 15 November	2.45 TB	86.47 GB
Sun 22 November	1.63 TB	85.64 GB
Sun 29 November	923.58 GB	48.75 GB

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Total Volume In: Total volume of inbound traffic on the interfaces
 - Total Volume Out: Total volume of outbound traffic on the interfaces
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the volume projection is not displayed.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Total Volume Group Comparison

Displays the total inbound and outbound volumes, by sub-group, for all interfaces in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Total Volume In: Total volume of inbound traffic on the interfaces
 - Total Volume Out: Total volume of outbound traffic on the interfaces
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Management Group Comparison Report](#), [Router Group Comparison Report](#), and [Server Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Management Group Comparison report, the Router Group Comparison report, and the Server Group Comparison report.

Total Volume Group Comparison (In, Out, and Total)

Displays the inbound, outbound, and total volumes, by sub-group, for all interfaces in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

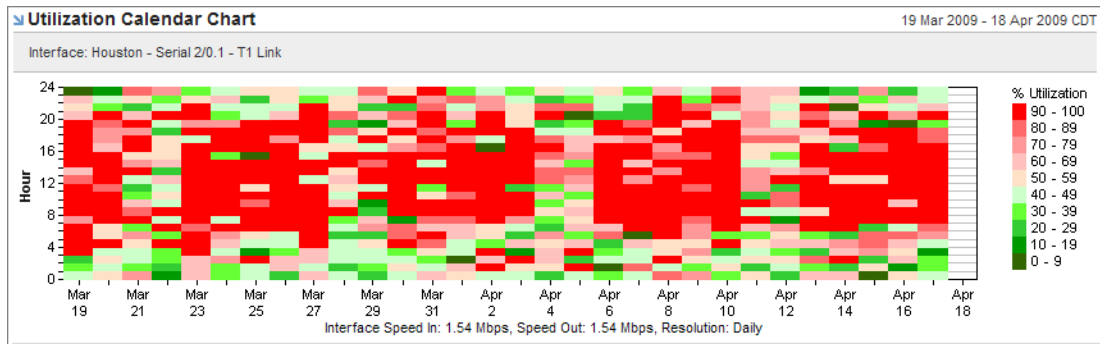
Total Volume Group Comparison			
3 Dec 2009 12:42 - 13:42 CST			
Group	Volume In	Volume Out	Total Volume
Northeast	3.23 GB	2.87 GB	6.10 GB
Southeast	2.38 GB	2.38 GB	4.75 GB
Northwest	1.42 GB	1.58 GB	3.00 GB
Southwest	1.71 GB	992.67 MB	2.71 GB
Midwest	1.70 GB	979.76 MB	2.68 GB

- Context: This view requires a selected reporting group to be displayed.

- **Data:** The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
- **Total Volume In:** Total volume of inbound traffic on the interfaces
- **Total Volume Out:** Total volume of outbound traffic on the interfaces
- **Styles:** This view can be displayed as a bar chart, stacked bar chart, or table.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Utilization Calendar Chart

Displays the combined (inbound and outbound) PVC usage on an interface for each day and hour during a selected period.

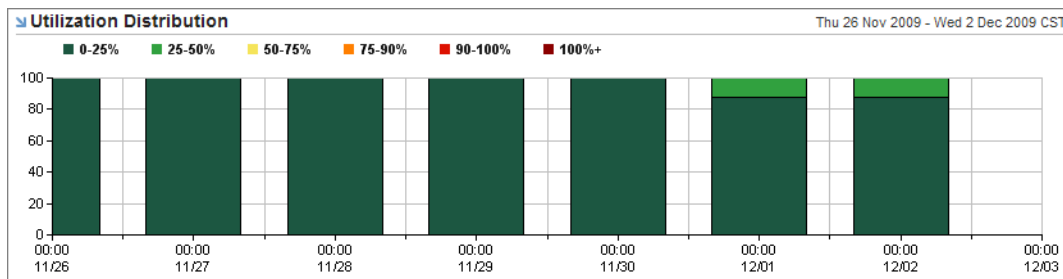


- **Context:** This view requires a selected interface to be displayed.
- **Data:** The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant.
- **Styles:** This view can be displayed as calendar chart only. This view cannot be edited in the Custom View Wizard.
- **Standard NetVoyant reports:** This view is included in the [Interface Utilization Report](#).

Utilization Distribution

Displays the overall usage for interfaces in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-25%: Percentage of interfaces with a usage value of 25% or below.
 - 25-50%: Percentage of interfaces with a usage value between 25% and 50%.
 - 50-75%: Percentage of interfaces with a usage value between 50% and 75%.
 - 75-90%: Percentage of interfaces with a usage value between 75% and 90%.
 - 90-100%: Percentage of interfaces with a usage value between 90% and 100%.
 - 100%+: Percentage of interfaces with a usage value of 100% or more.
- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is included in the [Management Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Management Summary report.

Utilization Distribution (with Count)

Displays the overall usage for interfaces in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

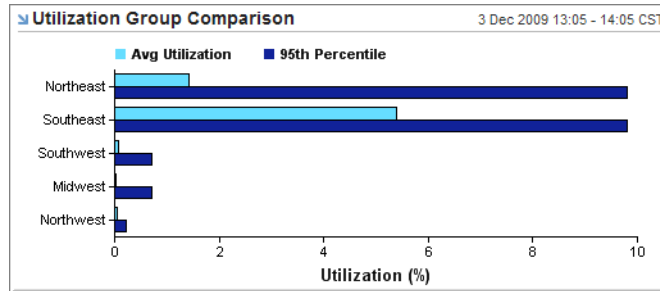
Date/Time ▲	0-25%	25-50%	50-75%	75-90%	90-100%	100%+
Thu 26 November	8 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
Fri 27 November	8 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
Sat 28 November	8 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
Sun 29 November	8 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
Mon 30 November	8 / 100.00%	0 / 0%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
Tue 01 December	7 / 87.50%	1 / 12.50%	0 / 0%	0 / 0%	0 / 0%	0 / 0%
Wed 02 December	7 / 87.50%	1 / 12.50%	0 / 0%	0 / 0%	0 / 0%	0 / 0%

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-25%: Number and percentage of interfaces with usage of 25% or less.
 - 25-50%: Number and percentage of interfaces with usage between 25% and 50%.
 - 50-75%: Number and percentage of interfaces with usage between 50% and 75%.
 - 75-90%: Number and percentage of interfaces with usage between 75% and 90%.
 - 90-100%: Number and percentage of interfaces with usage between 90% and 100%.
 - 100%+: Number and percentage of interfaces with usage of 100% or more.
- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Utilization Group Comparison

Displays the average and 95th percentile usage, by sub-group, for all interfaces in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

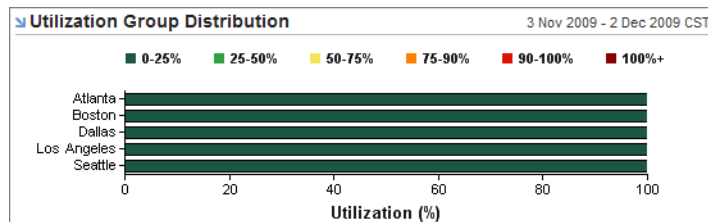


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avg Utilization: Average usage percentage
 - 95th Percentile: Average usage omitting the data outside of the 95th percentile. The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Management Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Management Group Comparison report.

Utilization Group Distribution

Displays average usage, by sub-group, for interfaces within a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.



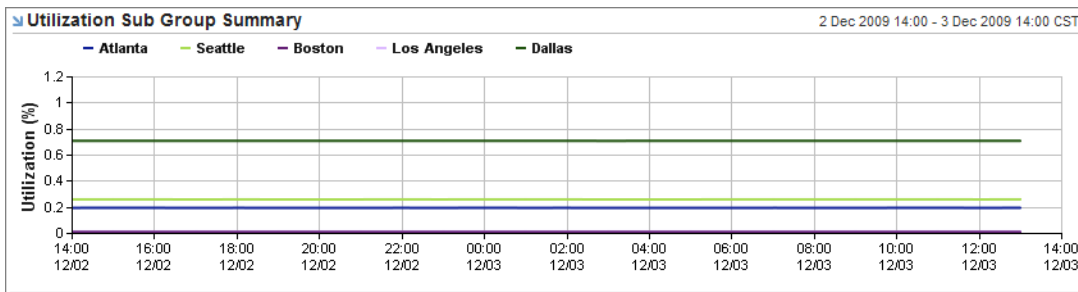
- Context: This view requires a selected reporting group to be displayed.

- **Data:** The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - 0-25%: Number and percentage of availability values of 25% or less.
 - 25-50%: Number and percentage of availability values between 25 and 50%.
 - 50-75%: Number and percentage of availability values between 50 and 75%.
 - 75-90%: Number and percentage of availability values between 75 and 90%.
 - 90-100%: Number and percentage of availability values between 90 and 100%.
 - 100%+: Number and percentage of availability values of 100% or more.
- **Styles:** This view can be displayed as a stacked bar chart or table.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Utilization Sub Group Summary

Displays the average usage, by sub-group, for all interfaces in a reporting group during the selected period.

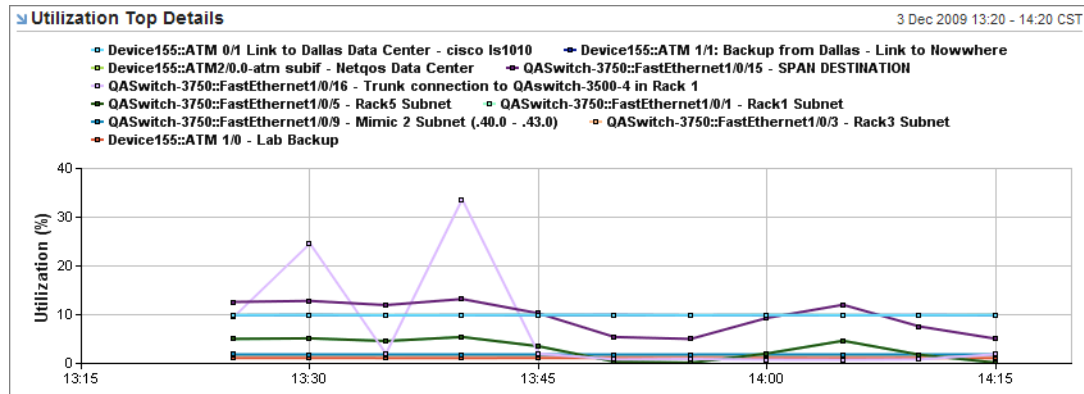
Group Summary views provide an aggregate view for the selected group broken down by sub-group to display meaningful comparisons of performance. Because reporting groups and sub-groups are typically organized to match your network organization, these views can also provide insights into how specific parts of your network compare to others.



- **Context:** This view requires a selected reporting group to be displayed.
- **Data:** The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant.
- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Utilization Top Details

Displays the usage for the interfaces in a reporting group or managed object with the highest usage over the selected period.

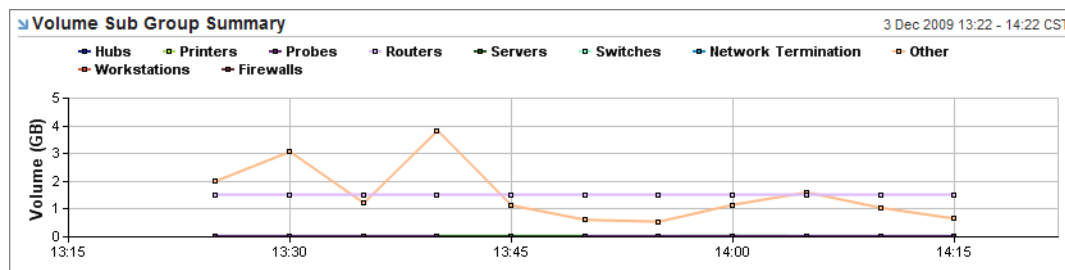


- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Volume Sub Group Summary

Displays the total volume for each sub-group for all interfaces in a reporting group during the selected period.

Group Summary views provide an aggregate view for the selected group broken down by sub-group to display meaningful comparisons of performance. Because reporting groups and sub-groups are typically organized to match your network organization, these views can also provide insights into how specific parts of your network compare to others.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.

- Standard NetVoyant reports: This view is included in the [Router Group Comparison Report](#) and Router Group Comparison report.
- Standard NetQoS Performance Center reports: This view is included in the Router Group Comparison report and the Server Group Comparison report.

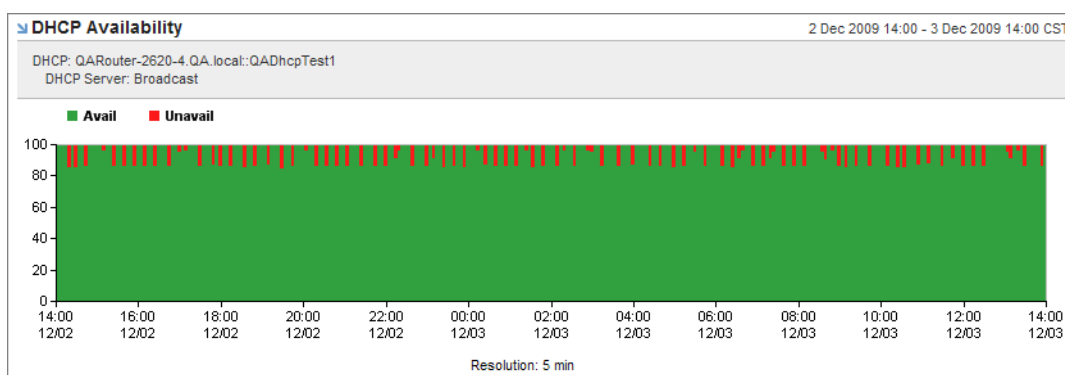
IP SLA VIEWS

The following topics describe the views related to IP SLA operations that you can add to your report pages. This information includes the view styles available for each view, the metric used to render the view, and the standard report pages that include the view.

IP SLA views are designed to provide status and performance information about individual IP SLA tests and IP SLA aggregations within reporting groups.

DHCP Availability

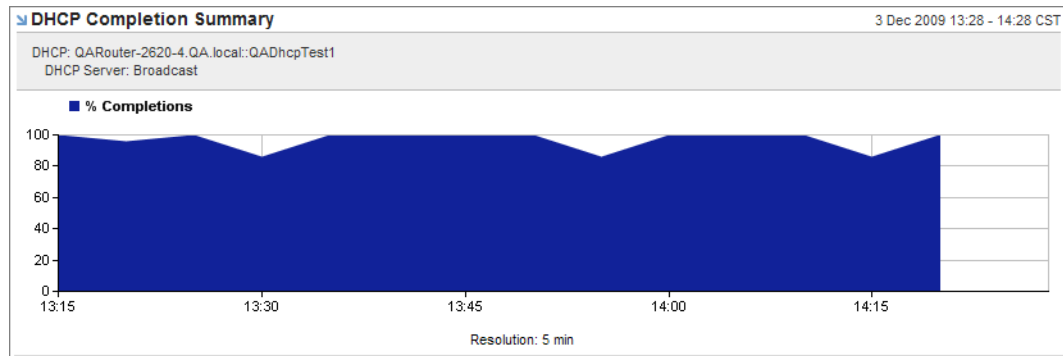
Displays the availability and unavailability percentages for a DHCP operation over the selected period.



- Context: This view requires a selected IP SLA DHCP test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IP SLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avail: Availability as a percentage (`comp_rate`).
 - Unavailability: Unavailability as a percentage (`err_rate`).
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

DHCP Completion Summary

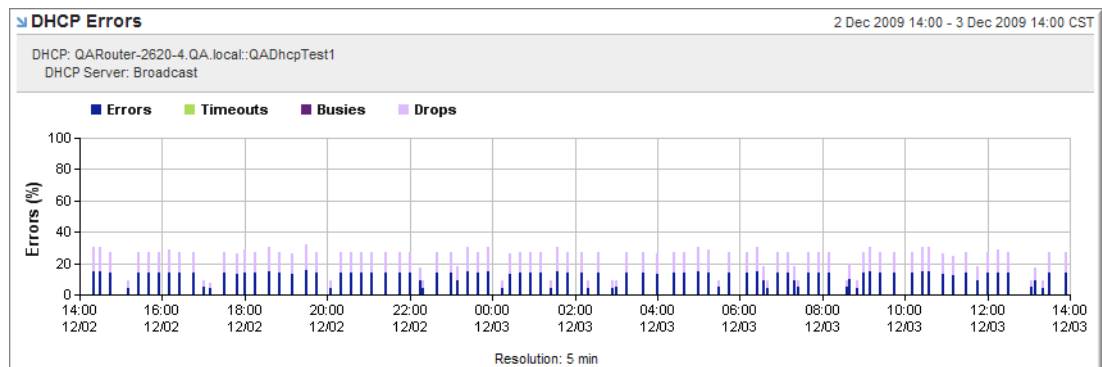
Displays the completion rate (percentage) for a DHCP operation over the selected period.



- Context: This view requires a selected IP SLA DHCP test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IPSLA Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

DHCP Errors

Displays the error statistics (errors, timeouts, busies, and drops) for a DHCP operation over the selected period.



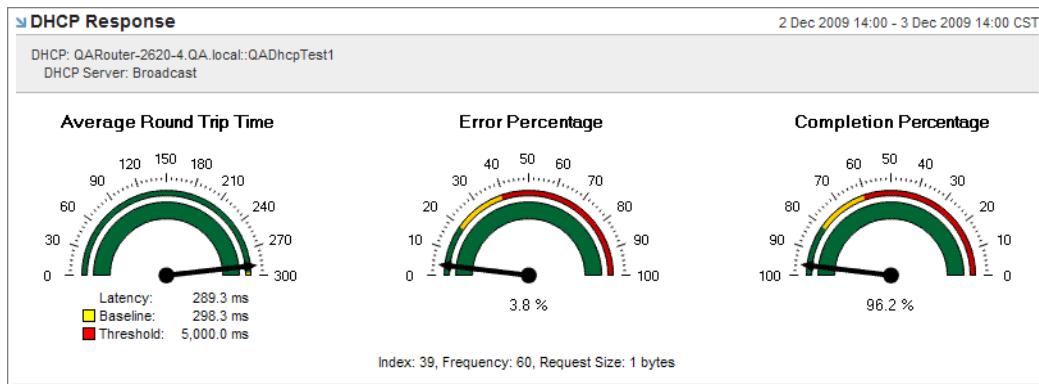
- Context: This view requires a selected IP SLA DHCP test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Errors: The basic error rate (sequence errors, verify errors, and disconnects) as a percentage
 - Timeouts: The rate of timeouts as a percentage
 - Busies: The rate of busies as a percentage
 - Drops: The rate of drops as a percentage
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.

- Standard NetVoyant reports: This view is included in the [DHCP Response Report](#).

DHCP Response

Displays the average round-trip time, error percentage, and completion percentage for a DHCP operation.

Gauge views provide a high-level indication of desirable and undesirable numbers according to baselines and thresholds.

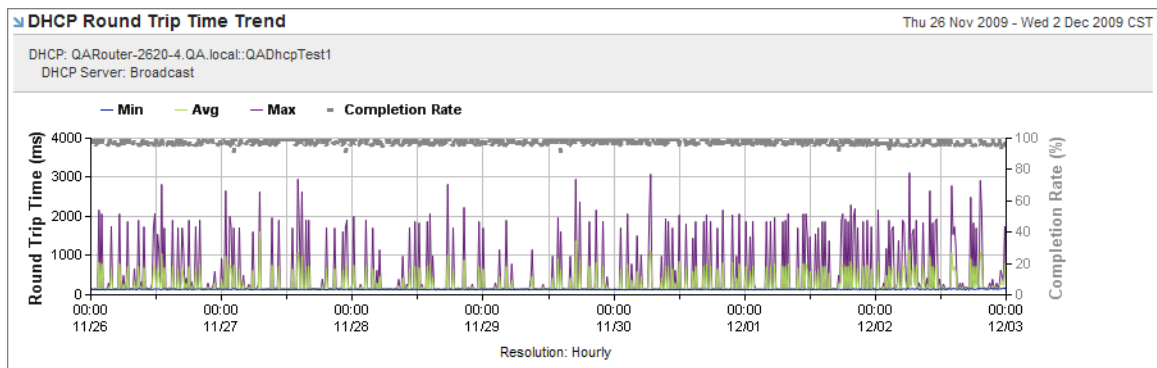


Note: This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.

- Context: This view requires a selected IP SLA DHCP test to be displayed.
- Styles: This view can be displayed as gauge chart only.
- Standard NetVoyant reports: This view is included in the [DHCP Response Report](#).

DHCP Round Trip Time Trend

Displays the minimum, maximum, and average round trip times with the completion percentage for a DHCP operation over the selected period.

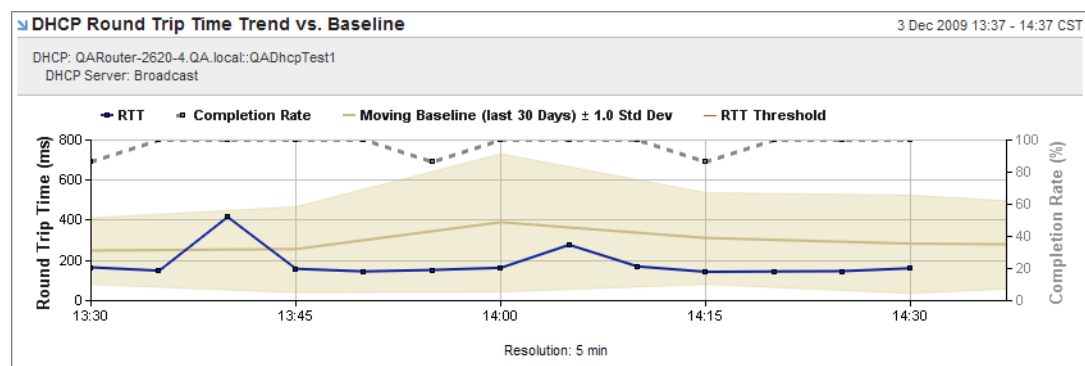


- Context: This view requires a selected IP SLA DHCP test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IP SLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Min: The minimum observed round trip time for the operation. This expression is displayed only when the view resolution is greater than the poll rate.

- Avg: The average round trip time for the operation
- Max: The maximum observed round trip time for the operation. This expression is displayed only when the view resolution is greater than the poll rate.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

DHCP Round Trip Time Trend vs. Baseline

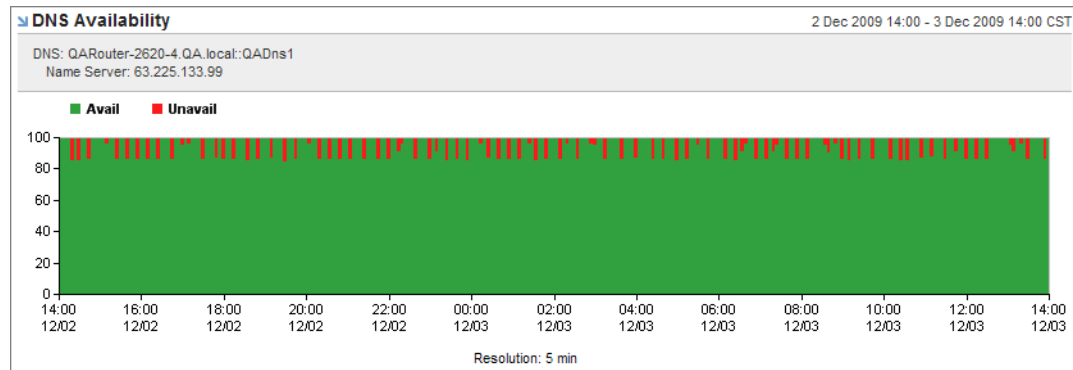
Displays the round trip time (RTT) vs. baseline (normal) with the completion percentage for a DHCP operation over the selected period. This view also displays the RTT baseline for hourly/daily periods and an RTT projection for periods of one week or more.



- Context: This view requires a selected IP SLA DHCP test to be displayed.
- Data: The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - RTT: The observed round trip time for the operation
 - Completion Rate: The completion rate as a percentage
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [DHCP Response Report](#).

DNS Availability

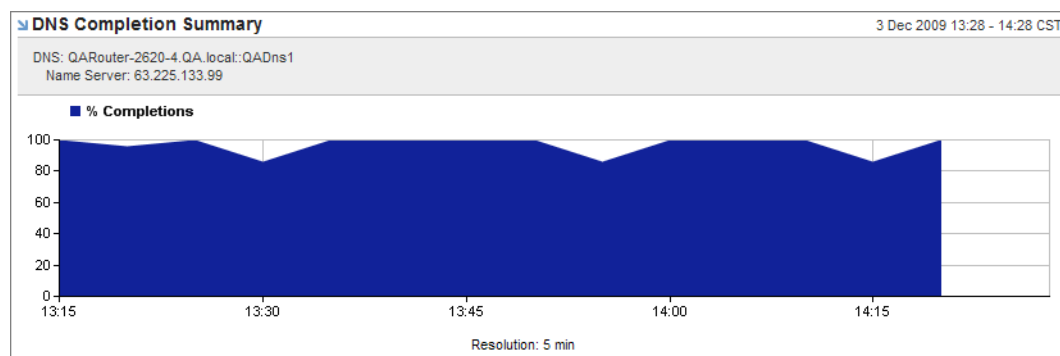
Displays the availability/unavailability percentages for a DNS operation over the selected period.



- Context: This view requires a selected IP SLA DNS test to be displayed.
- Data: The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avail: Availability as a percentage (comp_rate).
 - Unavail: Unavailability as a percentage (err_rate).
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

DNS Completion Summary

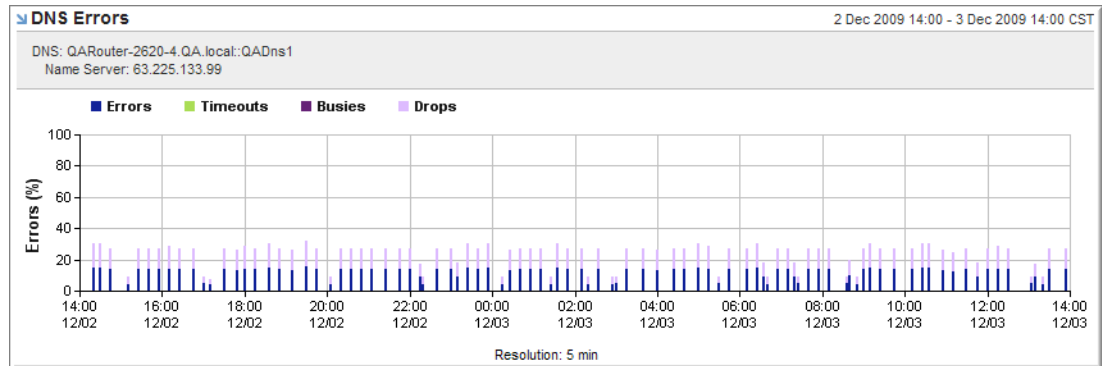
Displays the completion rate (percentage) for a DNS operation over the selected period.



- Context: This view requires a selected IP SLA DNS test to be displayed.
- Data: The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

DNS Errors

Displays the error statistics by type (errors, timeouts, busies, and drops) for a DNS operation over the selected period.

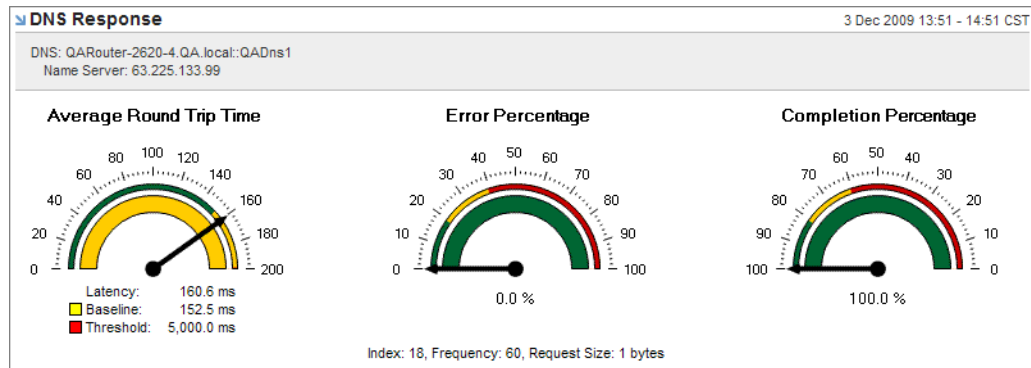


- Context: This view requires a selected IP SLA DNS test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Errors: The basic error rate (sequence errors, verify errors, disconnects, and no-connects) as a percentage
 - Timeouts: The rate of timeouts as a percentage
 - Busies: The rate of busies as a percentage
 - Drops: The rate of drops as a percentage
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [DNS Echo Response Report](#).

DNS Response

Displays the average round-trip time, error percentage, and completion percentage for a DNS operation.

Gauge views provide a high-level indication of desirable and undesirable numbers according to baselines and thresholds.

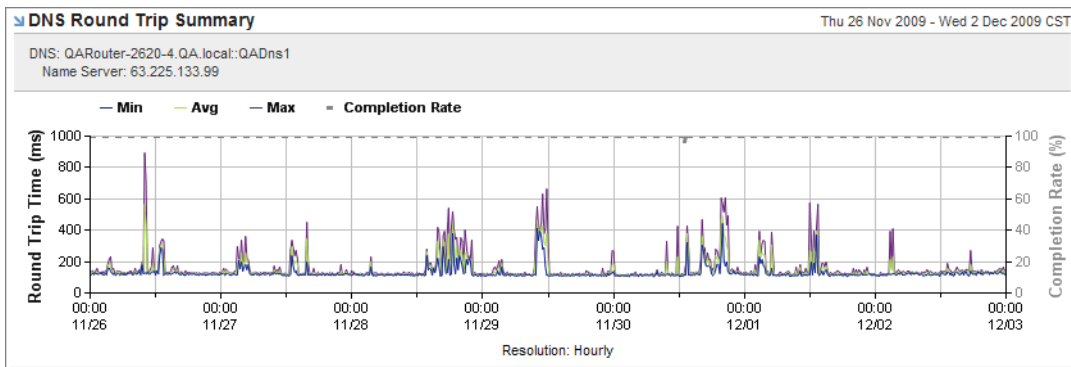


Note: This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.

- Context: This view requires a selected IP SLA DNS test to be displayed.
- Styles: This view can be displayed as gauge chart only.
- Standard NetVoyant reports: This view is included in the [DNS Echo Response Report](#).

DNS Round Trip Summary

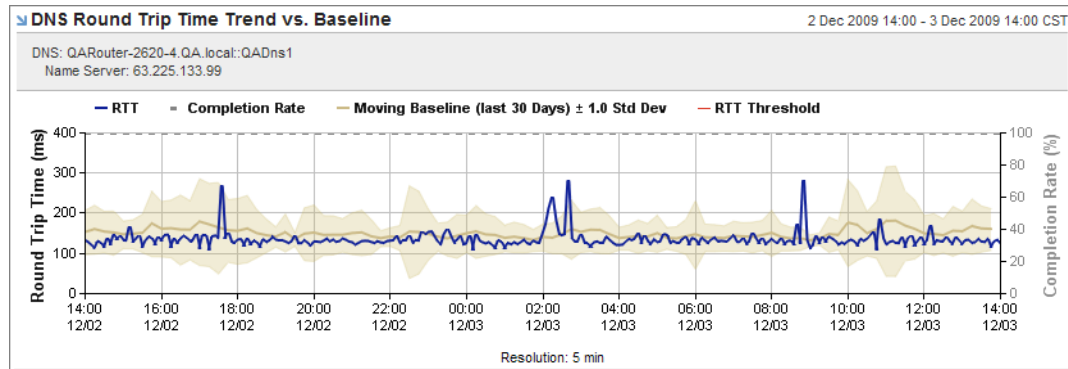
Displays the minimum, maximum, and average round trip times with the completion percentage for a DNS operation over the selected period.



- Context: This view requires a selected IP SLA DNS test to be displayed.
- Data: The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Min: The minimum observed round trip time for the operation. This expression is displayed only when the view resolution is greater than the poll rate.
 - Avg: The average round trip time for the operation
 - Max: The maximum observed round trip time for the operation. This expression is displayed only when the view resolution is greater than the poll rate.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

DNS Round Trip Time Trend vs. Baseline

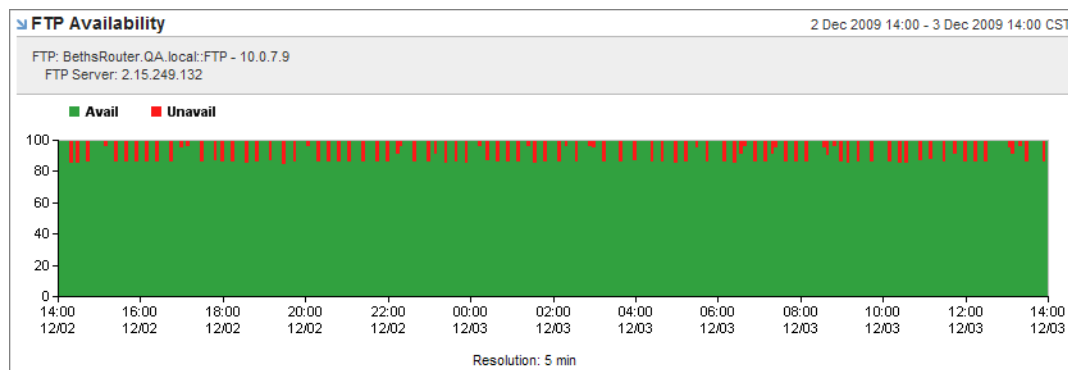
Displays the round trip time (RTT) vs. baseline (normal) with the completion percentage for a DNS operation over the selected period. This view also displays the RTT baseline for hourly and daily periods and an RTT projection for periods of one week or more.



- Context: This view requires a selected IP SLA DNS test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Round Trip Time: The observed round trip time for the operation
 - Completion Rate: The completion rate as a percentage
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [DNS Echo Response Report](#).

FTP Availability

Displays the availability and unavailability percentages for an FTP operation over the selected period.

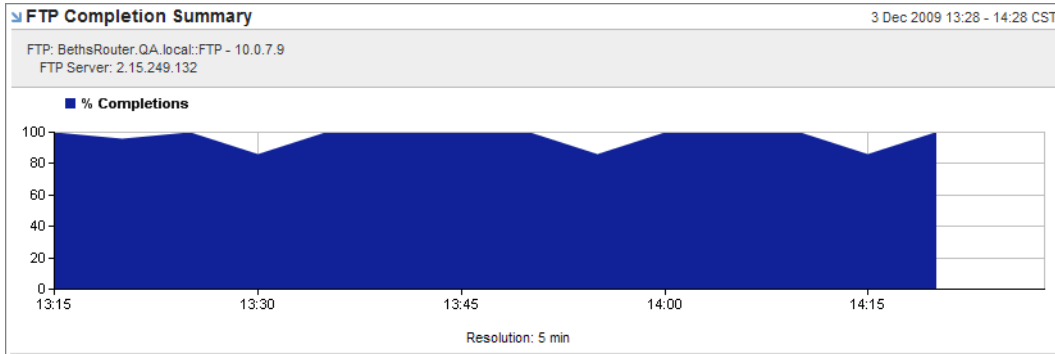


- Context: This view requires a selected IP SLA FTP test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avail: Availability as a percentage (`comp_rate`).
 - Unavail: Unavailability as a percentage (`err_rate`).
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.

- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

FTP Completion Summary

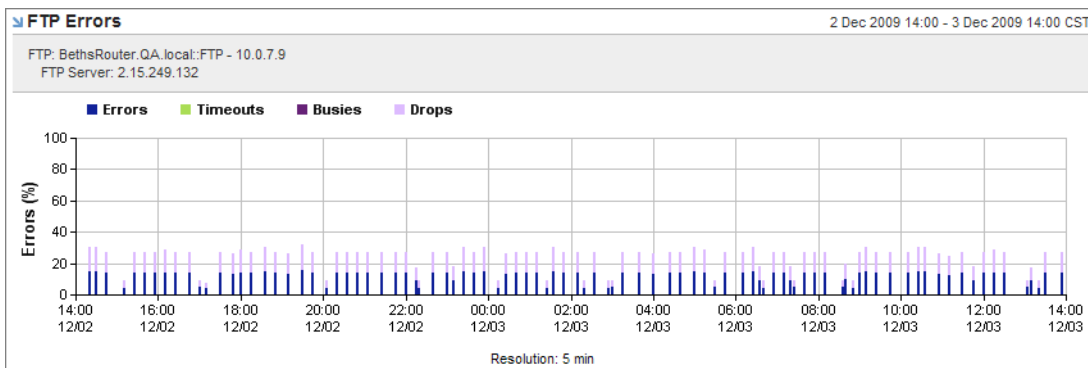
Displays the completion rate (percentage) for an FTP operation over the selected period.



- Context: This view requires a selected IP SLA FTP test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expression:
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

FTP Errors

Displays the error statistics (percentage of errors, timeouts, busies, and drops) for an FTP operation over the selected period.



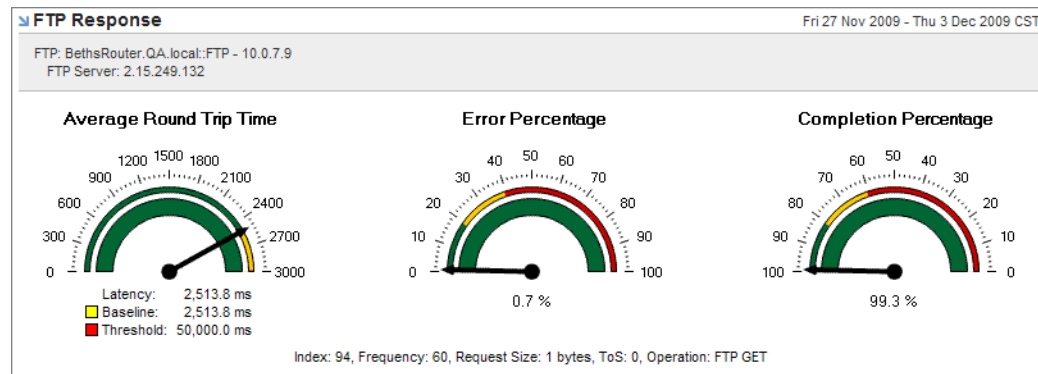
- Context: This view requires a selected IP SLA FTP test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Errors: The basic error rate (sequence errors, verify errors, disconnects, and no-connects) as a percentage
 - Timeouts: The rate of timeouts as a percentage
 - Busies: The rate of busies as a percentage

- Drops: The rate of drops as a percentage
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [FTP Response Report](#).

FTP Response

Displays the average round-trip time, error percentage, and completion percentage for an FTP operation.

Gauge views are designed to provide a high-level indication of desirable and undesirable numbers according to baselines and thresholds.

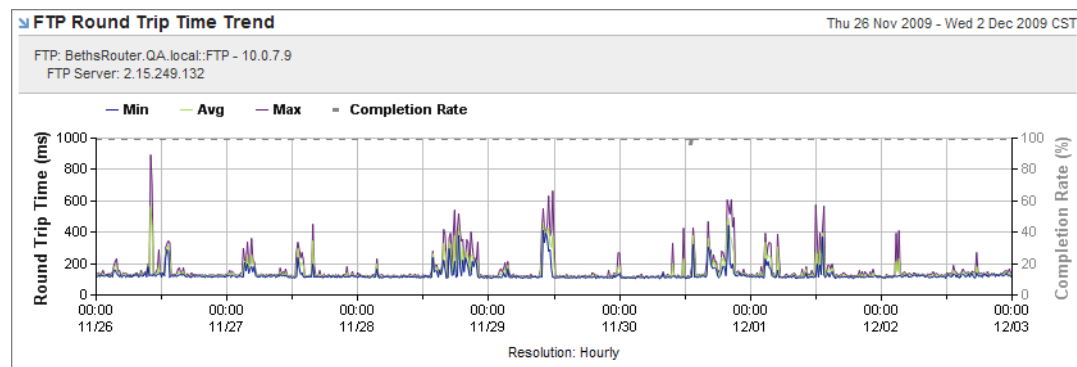


Note: This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.

- Context: This view requires a selected IP SLA FTP test to be displayed.
- Styles: This view can be displayed as gauge chart only.
- Standard NetVoyant reports: This view is included in the [FTP Response Report](#).

FTP Round Trip Time Trend

Displays the minimum, maximum, and average round trip times with the completion percentage for an FTP operation over the selected period.

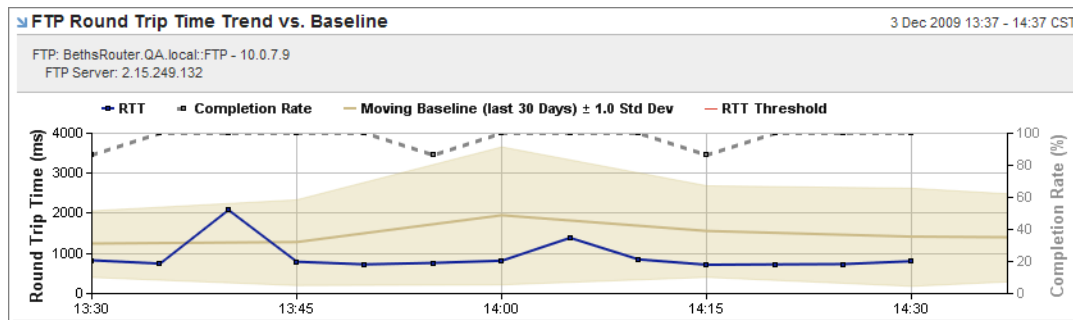


- Context: This view requires a selected IP SLA FTP test to be displayed.

- Data: The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Min: The minimum observed round trip time for the operation. This expression is displayed only when the view resolution is greater than the poll rate.
 - Avg: The average round trip time for the operation
 - Max: The maximum observed round trip time for the operation. This expression is displayed only when the view resolution is greater than the poll rate.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

FTP Round Trip Time Trend vs. Baseline

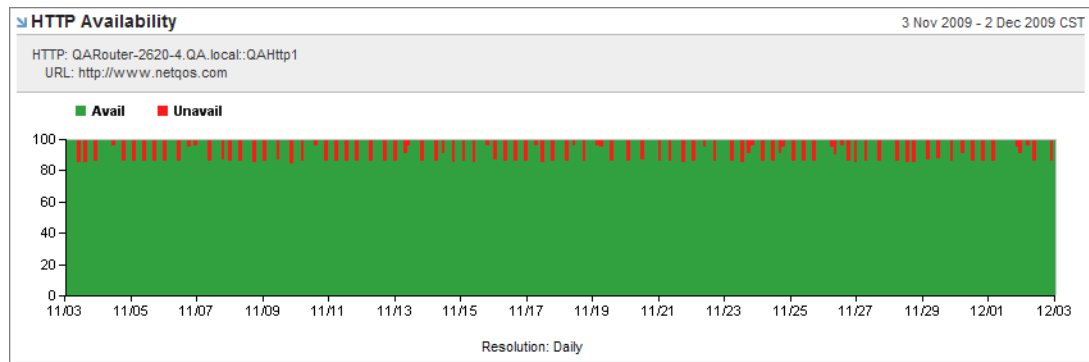
Displays the round trip time (RTT) vs. baseline (normal) with the completion percentage for an FTP operation over the selected period. This view also displays the RTT 30-day rolling baseline for hourly/daily periods and an RTT projection for periods of one week or more.



- Context: This view requires a selected IP SLA FTP test to be displayed.
- Data: The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Round Trip Time: The observed round trip time for the operation
 - Completion Rate: The completion rate as a percentage
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [FTP Response Report](#).

HTTP Availability

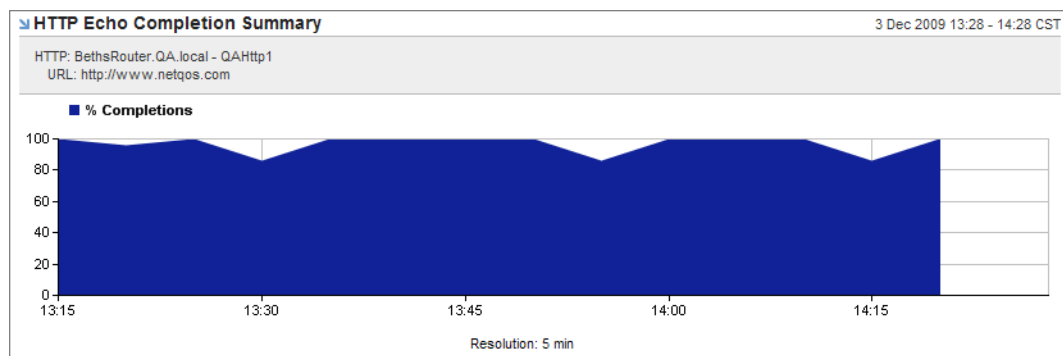
Displays the availability/unavailability percentages for an HTTP Echo operation over the selected period.



- Context: This view requires a selected IP SLA HTTP Echo test to be displayed.
- Data: The metric used to render this view is `rtthttp`, which corresponds to the IPSLA HTTP Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avail: Availability (completions/initiations) as a percentage.
 - Unavail: Value calculated by subtracting the availability percentage from 100.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

HTTP Echo Completion Summary

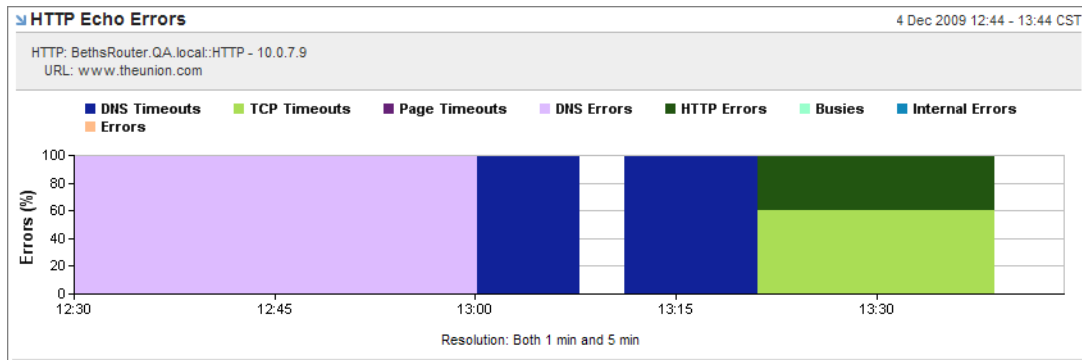
Displays the completion rate (percentage) for an HTTP Echo operation over the selected period.



- Context: This view requires a selected IP SLA HTTP Echo test to be displayed.
- Data: The metric used to render this view is `rtthttp`, which corresponds to the IPSLA HTTP Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

HTTP Echo Errors

Displays the timeout and error percentages for an HTTP Echo operation over the selected period.

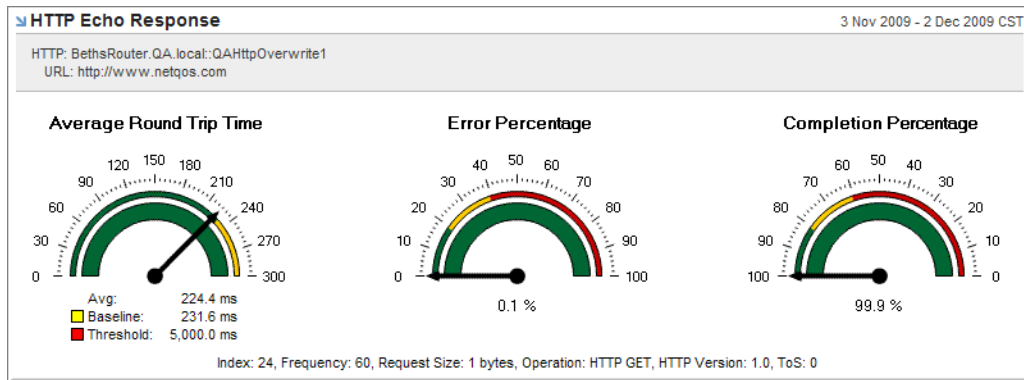


- Context: This view requires a selected IP SLA HTTP Echo test to be displayed.
- Data: The metric used to render this view is `rtthttp`, which corresponds to the IPSLA HTTP Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - DNS Timeouts: The percentage of requests that could not connect to the DNS Server
 - TCP Timeouts: The percentage of requests that could not connect to the HTTP Server
 - Page Timeouts: The percentage of requests that timed out during HTTP transaction
 - DNS Errors: The percentage of requests that had DNS Query errors
 - HTTP Errors: The percentage of requests that had HTTP errors while downloading the base page
 - Buses: The percentage of occasions when an HTTP operation could not be initiated because a previous HTTP operation had not been completed
 - Internal Errors: The percentage of occasions when an HTTP operation could not be initiated because of an internal error
 - Errors: The total percentage of errored requests
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [HTTP Echo Response Report](#).

HTTP Echo Response

Displays the average round-trip time, error percentage, and completion percentage for an HTTP operation.

Gauge views are designed to provide a high-level indication of desirable and undesirable numbers according to baselines and thresholds.

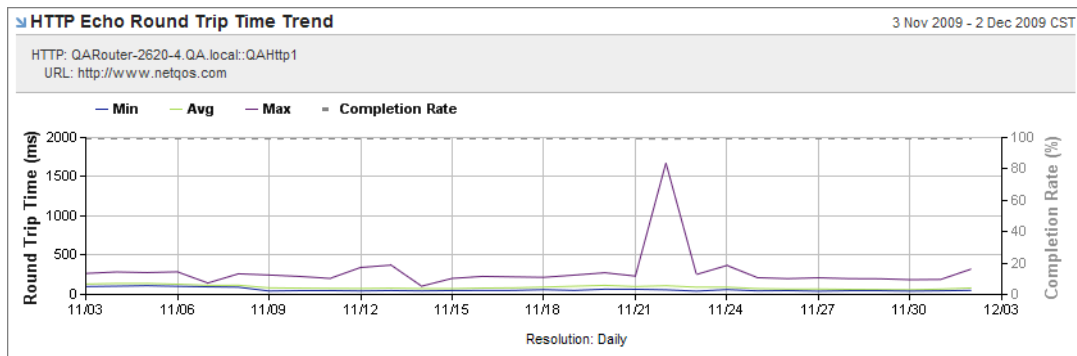


Note: This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.

- Context: This view requires a selected IP SLA HTTP test to be displayed.
- Styles: This view can be displayed as gauge chart only.
- Standard NetVoyant reports: This view is included in the [HTTP Echo Response Report](#).

HTTP Echo Round Trip Time Trend

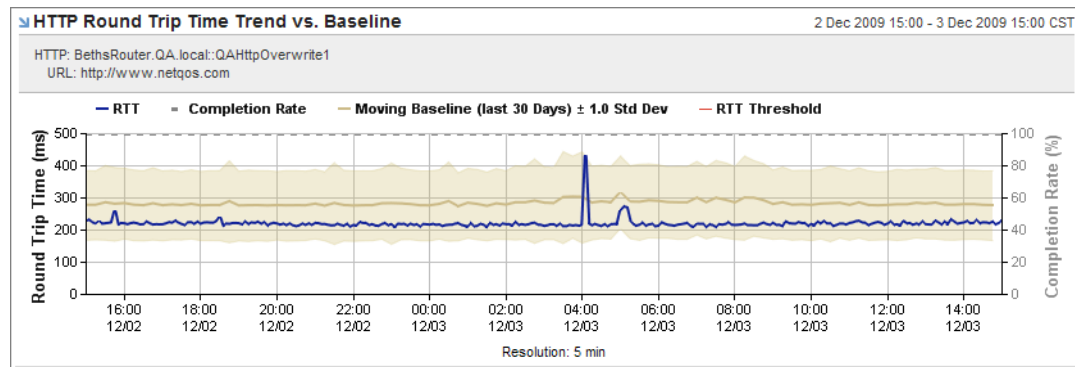
Displays the minimum, maximum, and average round trip times with the completion percentage for an HTTP Echo operation over the selected period.



- Context: This view requires a selected IP SLA HTTP Echo test to be displayed.
- Data: The metric used to render this view is `rtthttp`, which corresponds to the IPSLA HTTP Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Min: The minimum observed round trip time for the operation
 - This expression is displayed only when the view resolution is greater than the poll rate.
 - Avg: The average round trip time for the operation
 - Max: The maximum observed round trip time for the operation
 - This expression is displayed only when the view resolution is greater than the poll rate.
 - Completion Rate: Percentage of completions to initiations
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

HTTP Echo Round Trip Time Trend vs. Baseline

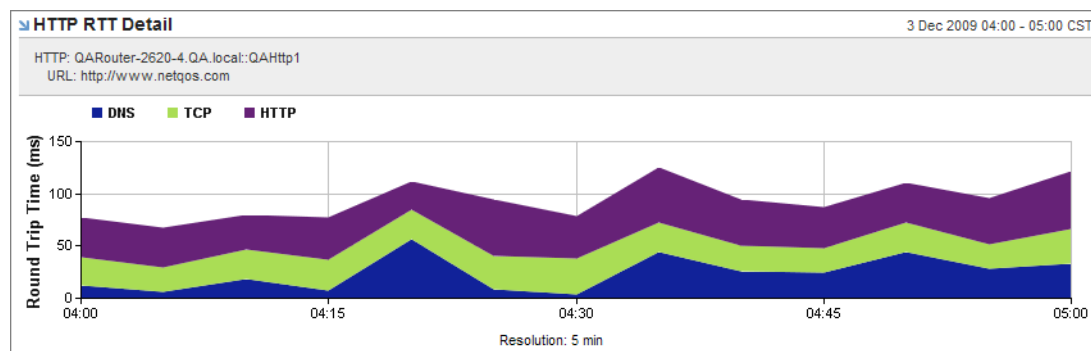
Displays the round trip time (RTT) vs. baseline (normal) with the completion percentage for an HTTP Echo operation over the selected period. This view also displays the RTT 30-day rolling baseline for hourly and daily periods and an RTT projection for periods of one week or more.



- Context: This view requires a selected IP SLA HTTP Echo test to be displayed.
- Data: The metric used to render this view is `rtthttp`, which corresponds to the IPSLA HTTP Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - RTT: The observed round trip time for the operation
 - Completion Rate: The completion rate as a percentage
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [HTTP Echo Response Report](#).

HTTP RTT Detail

Displays the round trip time components (DNS, TCP, and HTTP) for an HTTP Echo operation over the selected period.

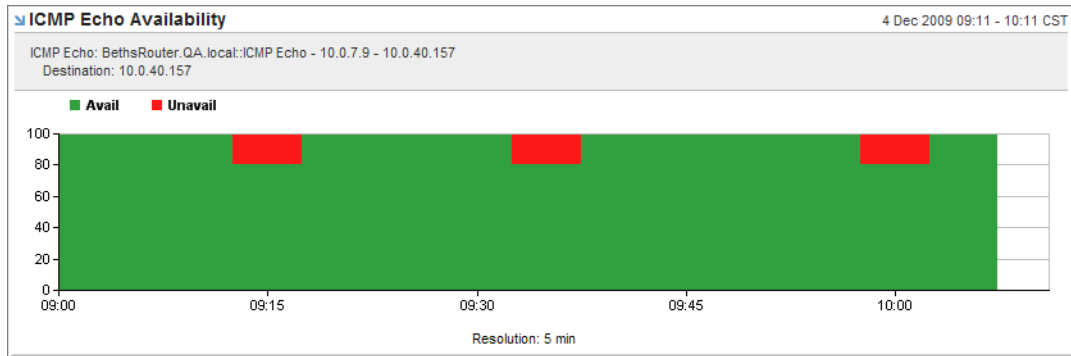


- Context: This view requires a selected IP SLA HTTP Echo test to be displayed.
- Data: The metric used to render this view is `rtthttp`, which corresponds to the IPSLA HTTP Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - DNS: The average DNS round trip time for the operation
 - TCP: The average TCP round trip time for the operation
 - HTTP: The average HTTP round trip time for the operation

- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [HTTP Echo Response Report](#).

ICMP Echo Availability

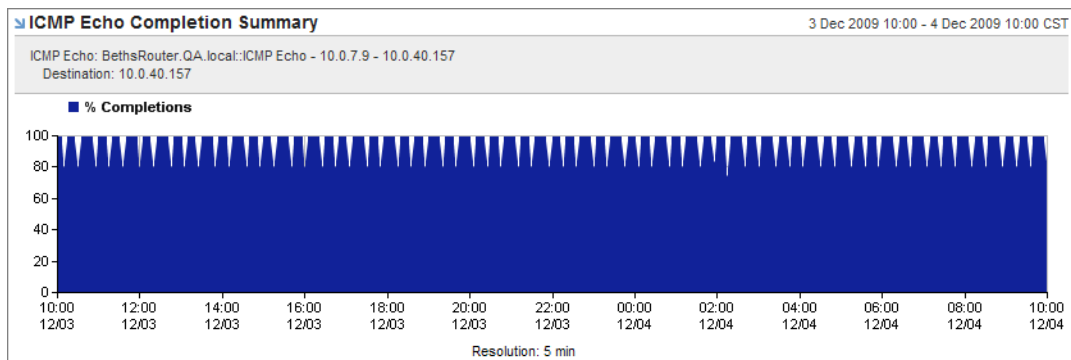
Displays the availability/unavailability percentages for an ICMP Echo operation over the selected period.



- Context: This view requires a selected IP SLA ICMP Echo test to be displayed.
- Data: The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avail: Availability (completions to initiations) as a percentage.
 - Unavail: Value calculated by subtracting the availability percentage from 100.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

ICMP Echo Completion Summary

Displays the completion rate (percentage) for an ICMP Echo operation over the selected period.

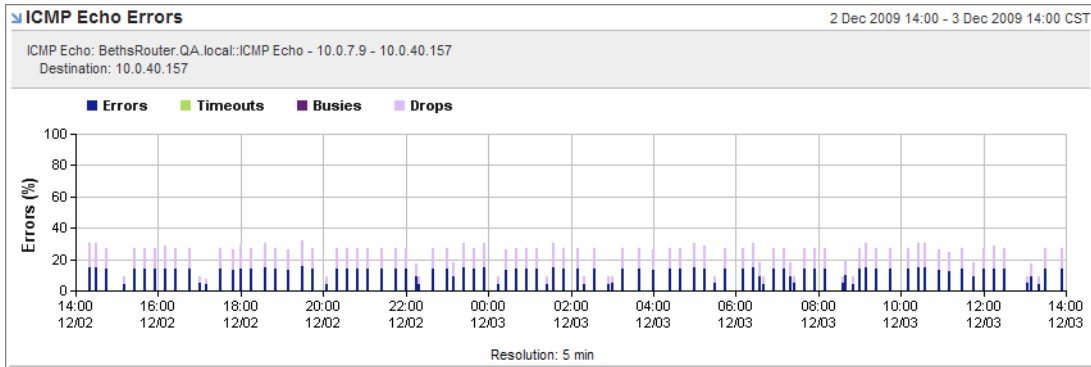


- Context: This view requires a selected IP SLA ICMP Echo test to be displayed.
- Data: The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant.

- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [ICMP Echo Response Report](#).

ICMP Echo Errors

Displays the timeout and error percentages for an ICMP Echo operation over the selected period.

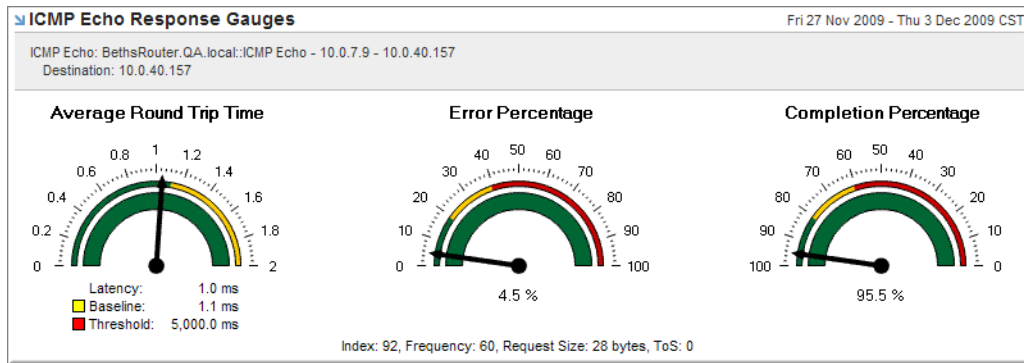


- Context: This view requires a selected IP SLA ICMP Echo test to be displayed.
- Data: The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Errors: The total percentage of errored requests
 - Timeouts: The percentage of requests that could not connect to the server
 - Busies: The percentage of occasions when an ICMP operation could not be initiated because a previous operation had not been completed
 - Drops: The percentage of occasions when an ICMP operation could not be initiated because of an internal error
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [ICMP Echo Response Report](#).

ICMP Echo Response Gauges

Displays the average round-trip time, error percentage, and completion percentage for an ICMP operation.

Gauge views are designed to provide a high-level indication of desirable and undesirable numbers according to baselines and thresholds.

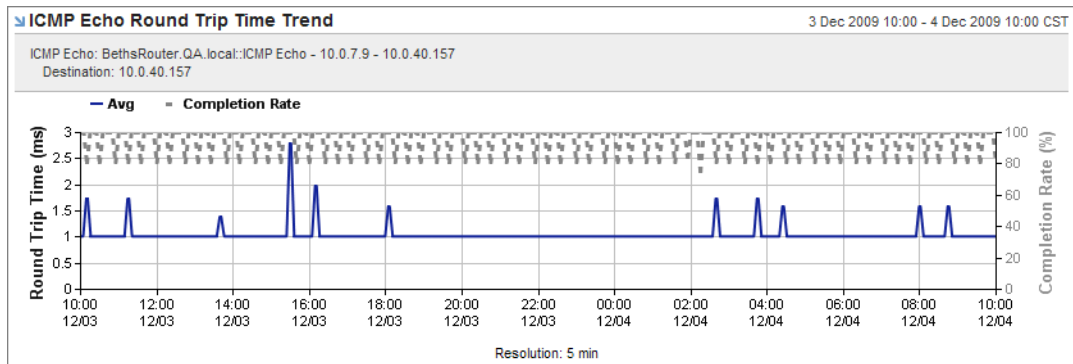


Note: This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.

- Context: This view requires a selected IP SLA ICMP Echo test to be displayed.
- Styles: This view can be displayed as gauge chart only.
- Standard NetVoyant reports: This view is included in the [ICMP Echo Response Report](#).

ICMP Echo Round Trip Time Trend

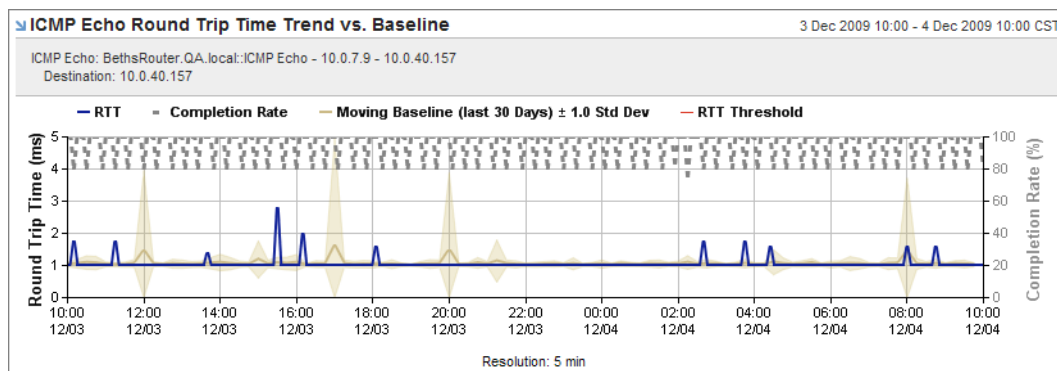
Displays the minimum, maximum, and average round trip times with the completion percentage for an ICMP Echo operation over the selected period.



- Context: This view requires a selected IP SLA ICMP Echo test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IP SLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Min: The minimum observed round trip time for the operation. This expression is displayed only when the view resolution is greater than the poll rate.
 - Avg: The average round trip time for the operation
 - Max: The maximum observed round trip time for the operation. This expression is displayed only when the view resolution is greater than the poll rate.
 - Completion Rate: Percentage of completions to initiations
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

ICMP Echo Round Trip Time Trend vs. Baseline

Displays the round trip time (RTT) vs. baseline (normal) with the completion percentage for an ICMP Echo operation over the selected period. This view also displays the RTT 30-day rolling baseline for hourly/daily periods and an RTT projection for periods of one week or more.



- Context: This view requires a selected IP SLA ICMP Echo test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - RTT: The observed round trip time for the operation
 - Completion Rate: Percentage of completions to initiations
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [ICMP Echo Response Report](#).

IP SLA Availability Scorecard

Displays an overview scorecard for the average availability of IP SLA operations across multiple groups or subgroups. You can select a goal range for the values to determine how the values in the scorecard display.

Scorecard views display monthly performance data for the previous six month or seven week period by sub-group, for the selected group. Scorecards are high-level indicators of whether or not measured resources are meeting service-level goals. These views incorporate check marks and exclamation points as visual indicators to enhance quick understanding.

IP SLA Availability Scorecard									
Thu 24 Sep 2009 - Wed 30 Sep 2009 CDT									
Group ▲	Target	Aug 16	Aug 23	Aug 30	Sep 6	Sep 13	Sep 20	Sep 27	Average
- Devices	>= 98.00	❗ 61.526	❗ 63.037	❗ 60.294	❗ 60.734	❗ 71.782	❗ 68.176	❗ 68.171	❗ 64.494
Firewalls	>= 98.00	--	--	--	--	--	--	--	--
Hubs	>= 98.00	--	--	--	--	--	--	--	--
Network Termination	>= 98.00	--	--	--	--	--	--	--	--
New Group1	>= 98.00	--	--	--	--	--	--	--	--
New Group2	>= 98.00	❗ 74.594	❗ 74.156	❗ 66.321	❗ 68.469	❗ 67.072	❗ 65.139	❗ 63.009	❗ 68.394
Other	>= 98.00	--	--	--	--	--	--	--	--
Printers	>= 98.00	--	--	--	--	--	--	--	--
Probes	>= 98.00	--	--	--	--	--	--	--	--
Routers	>= 98.00	❗ 64.807	❗ 66.075	❗ 63.426	❗ 63.931	❗ 76.413	❗ 72.246	❗ 72.432	❗ 68.086
1 2									
Max Per Page: 10									

- Context: This view requires a selected reporting group to be displayed.

- **Data:** The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expression:
Note: This scorecard view uses a default target percentage of 98.0, so that sub-groups with an average availability below that target are displayed with a red exclamation point to indicate that the item falls below the target. You can modify this target value in the Custom View Wizard to meet your organization's service level goals.
- **Styles:** This view can be displayed as table only.
- **Standard NetVoyant reports:** This view is included in the [Scorecards Report](#).
- **Standard NetQoS Performance Center reports:** This view is included in the Scorecards report and IP SLA Dashboard report.

IP SLA Operations by Router

Displays the average round-trip time (RTT), error rate (%), completion rate (%), and quantity of IP SLA operations on the routers in a reporting group during the selected period.

Name	Avg RTT (ms) ▾	Error Rate (%)	Comp Rate (%)	Count
QARouter-2620-4.QA.local	86.0 ms	24.138%	75.862%	29
BethsRouter.QA.local	26.4 ms	41.961%	58.039%	17
Mimic2Dev66	0.0 ms	0.000%	0.000%	4
Mimic2Dev594	0.0 ms	0.000%	0.000%	1

1 of 1 Max Per Page: 10 ▾

- **Context:** This view requires a selected reporting group to be displayed.
- **Data:** This view uses a combination of metrics to render the data. To filter the data to display only those operations of a specific type, click the blue arrow at the upper-left corner of the view to access the view menu and select Edit. In the Select Operation Filter dialog, choose an IP SLA operation type from the Select Operation Filter list and click OK.
- **Styles:** This view can be displayed as table only.
- **Standard NetVoyant reports:** This view is included in the [IP SLA Report](#).
- **Standard NetQoS Performance Center reports:** This view is included in the IP SLA report and IP SLA Dashboard report.

IP SLA Operations by Rtt Type

Displays the average round-trip time (RTT), error rate (%), completion rate (%), and quantity of IP SLA operations occurring in a reporting group or managed object during the selected period.

IP SLA Operations by Rtt Type					1 Oct 2009 09:25 - 10:25 CDT
Name	Avg RTT (ms)	Error Rate (%)	Comp Rate (%)	Count	
HTTP	143.4 ms	0.000%	100.000%	9	
TCP Connect	135.4 ms	12.500%	75.000%	8	
UDP Echo	83.1 ms	12.500%	75.000%	8	
DNS	81.4 ms	37.500%	50.000%	8	
Path Echo	38.8 ms	0.000%	77.778%	9	
ICMP Echo	22.3 ms	40.444%	59.556%	15	
VoIP Jitter	2.1 ms	20.000%	80.000%	5	
DHCP	0.0 ms	100.000%	0.000%	1	
FTP	0.0 ms	100.000%	0.000%	2	
1 of 1					Max Per Page: 10

- Context: This view requires a selected reporting group, router, or switch to be displayed.
- Data: This view uses a combination of metrics to render the data. To filter the data to display only those operations of a specific type, click the blue arrow at the upper-left corner of the view to access the view menu and select Edit. In the Select Operation Filter dialog, choose an IP SLA operation type from the Select Operation Filter list and click OK.
- Styles: This view can be displayed as table only.
- Standard NetVoyant reports: This view is included in the [IP SLA Report](#).
- Standard NetQoS Performance Center reports: This view is included in the IP SLA report and IP SLA Dashboard report.

IP SLA Operations List

Displays operation type, source and destination addresses, average round-trip time (RTT), error rate (%), and completion rate (%) for each IP SLA operation occurring in a reporting group or managed object during the selected period.

IP SLA Operations List							1 Oct 2009 09:15 - 10:15 CDT
Name	Type	Src	Dst	Avg RTT (ms)	Error Rate (%)	Comp Rate (%)	
BethsRouter.QA.local - QAHttp1	HTTP	BethsRouter.QA.local	netqos.com	222.7 ms	0.000%	100.000%	
BethsRouter.QA.local - QAHttpOverwrite1	HTTP	BethsRouter.QA.local	netqos.com	220.6 ms	0.000%	100.000%	
QARouter-2620-4.QA.local - QATCPConn1	TCP Connect	QARouter-2620-4.QA.local	192.168.123.2	178.6 ms	0.000%	100.000%	
QARouter-2620-4.QA.local - QADns1	DNS	QARouter-2620-4.QA.local	63.225.133.99	174.9 ms	0.000%	100.000%	
QARouter-2620-4.QA.local - QATCPConn1	TCP Connect	QARouter-2620-4.QA.local	192.168.123.2	174.3 ms	0.000%	100.000%	
QARouter-2620-4.QA.local - QATCPConn1	TCP Connect	QARouter-2620-4.QA.local	192.168.123.2	170.9 ms	0.000%	100.000%	
QARouter-2620-4.QA.local - QATCPConn1	TCP Connect	QARouter-2620-4.QA.local	192.168.123.2	170.4 ms	0.000%	100.000%	
QARouter-2620-4.QA.local - QADns1	DNS	QARouter-2620-4.QA.local	63.225.133.99	169.3 ms	0.000%	100.000%	
QARouter-2620-4.QA.local - QADns1	DNS	QARouter-2620-4.QA.local	63.225.133.99	166.4 ms	0.000%	100.000%	
QARouter-2620-4.QA.local - QADns1	DNS	QARouter-2620-4.QA.local	63.225.133.99	161.1 ms	0.000%	100.000%	
1 2 3 4 5 ► 9							Max Per Page: 10

- Context: This view requires a selected reporting group, device, router, or switch to be displayed.

- **Data:** This view uses a combination of metrics to render the data. To filter the data to display only those operations of a specific type, click the blue arrow at the upper-left corner of the view to access the view menu and select Edit. In the Select Operation Filter dialog, choose an IP SLA operation type from the Select Operation Filter list and click OK.
- **Styles:** This view can be displayed as table only.
- **Standard NetVoyant reports:** This view is included in the [IP SLA Report](#), [Device Capabilities Report](#), and [Router Capabilities Report](#).
- **Standard NetQoS Performance Center reports:** This view is included in the IP SLA report and IP SLA Dashboard report.

IP SLA Over-Threshold Scorecard

Displays an overview scorecard for the over-thresholds using baseline for IP SLA operations across multiple groups or subgroups. You can select a goal range for the values to determine how the values in the scorecard display.

Scorecard views display monthly performance data for the previous six month or seven week period by sub-group, for the selected group. Scorecards are high-level indicators of whether or not measured resources are meeting service-level goals. These views incorporate check marks and exclamation points as visual indicators to enhance quick understanding.

IP SLA Over-Threshold Scorecard									
Thu 24 Sep 2009 - Wed 30 Sep 2009 CDT									
Group ▲	Target	Aug 16	Aug 23	Aug 30	Sep 6	Sep 13	Sep 20	Sep 27	Average
- Devices	>= 10.00	! 0.291	! 0.264	! 0.272	! 0.125	! 0.197	! 0.225	! 0.441	! 0.257
Firewalls	>= 10.00	--	--	--	--	--	--	--	--
Hubs	>= 10.00	--	--	--	--	--	--	--	--
Network Termination	>= 10.00	--	--	--	--	--	--	--	--
New Group1	>= 10.00	--	--	--	--	--	--	--	--
New Group2	>= 10.00	! 0.667	! 0.045	! 0.167	! 0.000	! 0.182	! 0.000	! 0.000	! 0.152
Other	>= 10.00	--	--	--	--	--	--	--	--
Printers	>= 10.00	--	--	--	--	--	--	--	--
Probes	>= 10.00	--	--	--	--	--	--	--	--
Routers	>= 10.00	! 0.307	! 0.277	! 0.286	! 0.132	! 0.210	! 0.239	! 0.469	! 0.272

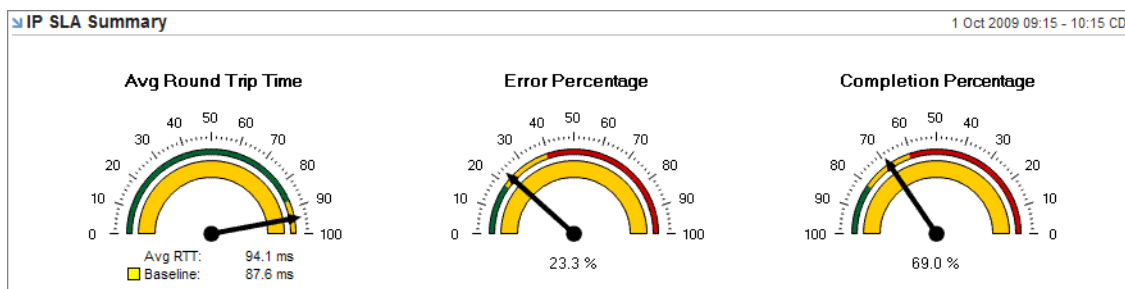
Note: This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.

- **Context:** This view requires a selected reporting group to be displayed.
- **Styles:** This view can be displayed as table only.
- **Standard NetVoyant reports:** This view is included in the [Scorecards Report](#).

IP SLA Summary

Displays the average round-trip time, error percentage, and completion percentage for IP SLA operations for a reporting group or managed object during the selected period.

Gauge views are designed to provide a high-level indication of desirable and undesirable numbers according to baselines and thresholds.

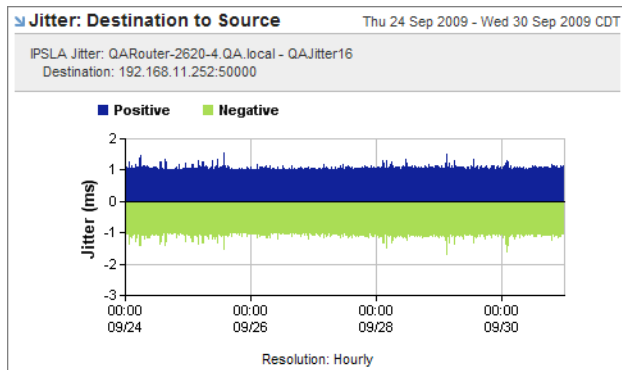


Note: This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.

- Context: This view requires a selected reporting group, router, switch or IP SLA operation type to be displayed.
- Styles: This view can be displayed as gauge chart only.
- Standard NetVoyant reports: This view is included in the [IP SLA Report](#) and [IP SLA Operations Report](#).
- Standard NetQoS Performance Center reports: This view is included in the IP SLA report and IP SLA Dashboard report.

Jitter: Destination to Source

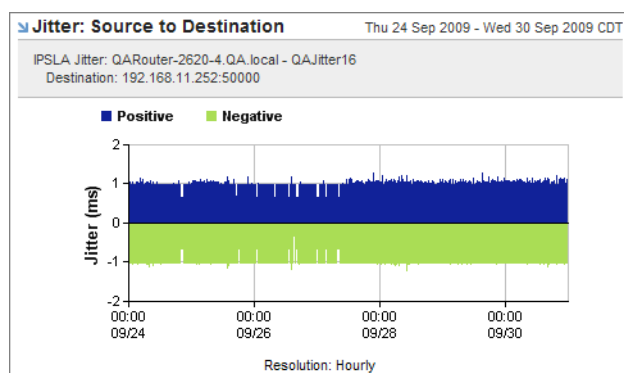
Displays the inter-packet delay in variation from the average jitter measure from the destination to the source for an IPSLA Jitter operation during the selected period.



- Context: This view requires a selected IP SLA Jitter test to be displayed.
- Data: The metric used to render this view is `rttjitter`, which corresponds to the IPSLA Jitter Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Positive: The average sum of all positive jitter values from packets sent from destination to source.
 - Negative: The average sum of all negative jitter values from packets sent from destination to source.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Enhanced UDP For Voice \(VoIP\) Report](#).

Jitter: Source to Destination

Displays the inter-packet delay in variation from the average jitter measure from the source to the destination for an IPSLA Jitter operation during the selected period.

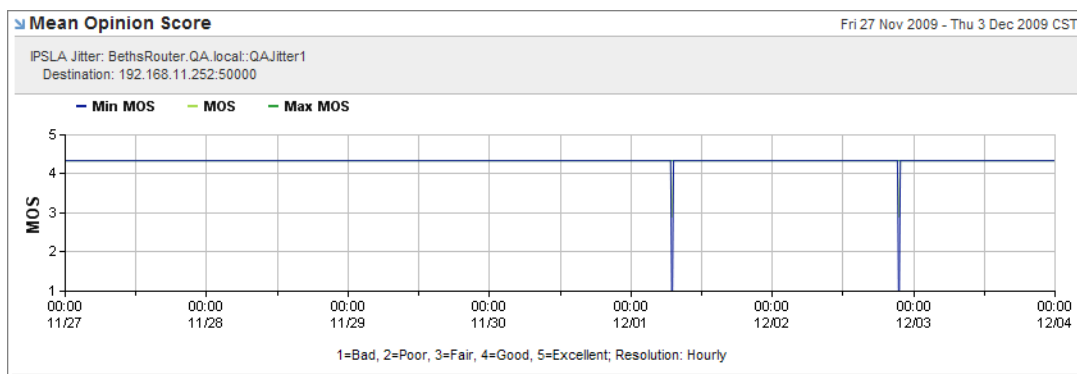


- Context: This view requires a selected IP SLA Jitter test to be displayed.
- Data: The metric used to render this view is `rttjitter`, which corresponds to the IPSLA Jitter Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Positive: The average sum of all positive jitter values from packets sent from source to destination.
 - Negative: The average sum of all negative jitter values from packets sent from source to destination.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Enhanced UDP For Voice \(VoIP\) Report](#).

Mean Opinion Score

Displays the minimum, average, and maximum Mean Opinion Score (MOS), which is a measure of user perception based on the codec for voice packet round trip, for the selected IP SLA Jitter operation during the selected period.

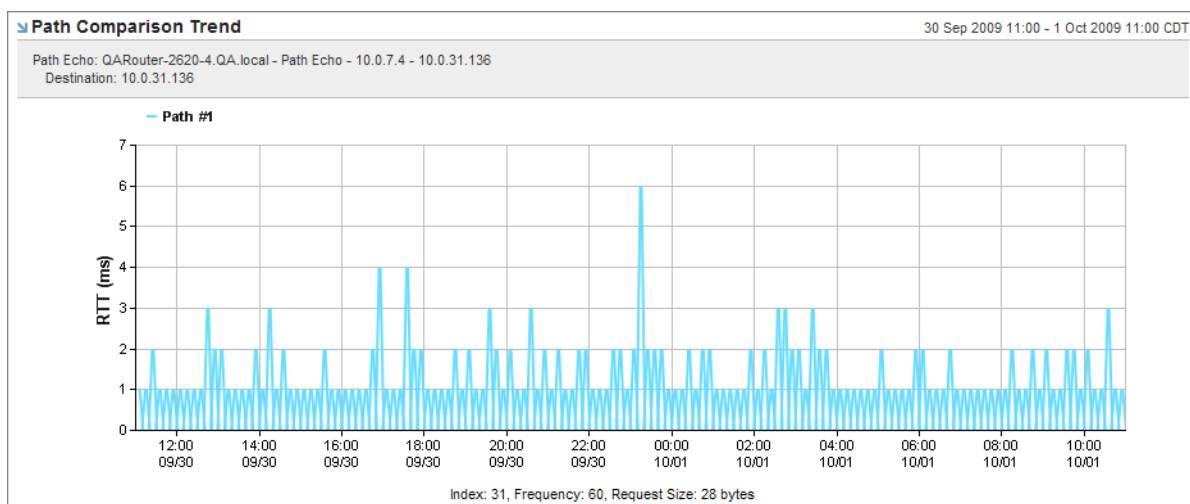
MOS is an industry standard for gauging call quality by estimating the impact of various impairments to the quality of the voice signal on the listener's likely perception of the call's quality. The MOS scale ranges from 5.00 to 1.00, with 5.00 representing the highest quality—that is, a score representing an audio signal free from impairments—and 1.00 representing the lowest quality. The average MOS value is the average MOS listening quality (LQK) score observed for the entire voice stream.



- Context: This view requires a selected IP SLA Jitter test to be displayed.
- Data: The metric used to render this view is `rttjitter`, which corresponds to the IPSLA Jitter Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Min MOS: The minimum MOS value from IP SLA Jitter test packets sent. This expression is displayed only when the view resolution is greater than the poll rate.
 - MOS: The average MOS value from IP SLA Jitter test packets sent.
 - Max MOS: The maximum MOS value from IP SLA Jitter test packets sent. This expression is displayed only when the view resolution is greater than the poll rate.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Enhanced UDP For Voice \(VoIP\) Report](#).

Path Comparison Trend

Displays the round trip times for each path for a path echo operation over the selected period.

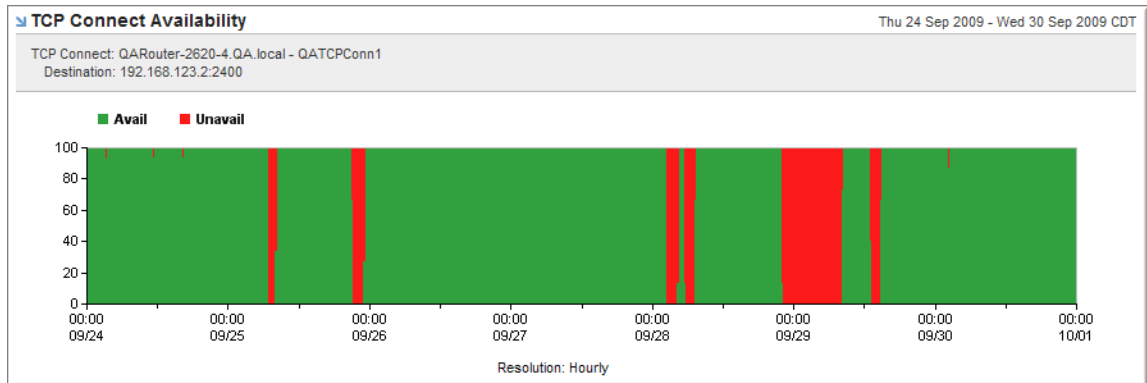


- Context: This view requires a selected IP SLA Path Echo test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IPSLA Statistics dataset in NetVoyant.

- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Path Echo Response Report](#).

TCP Connect Availability

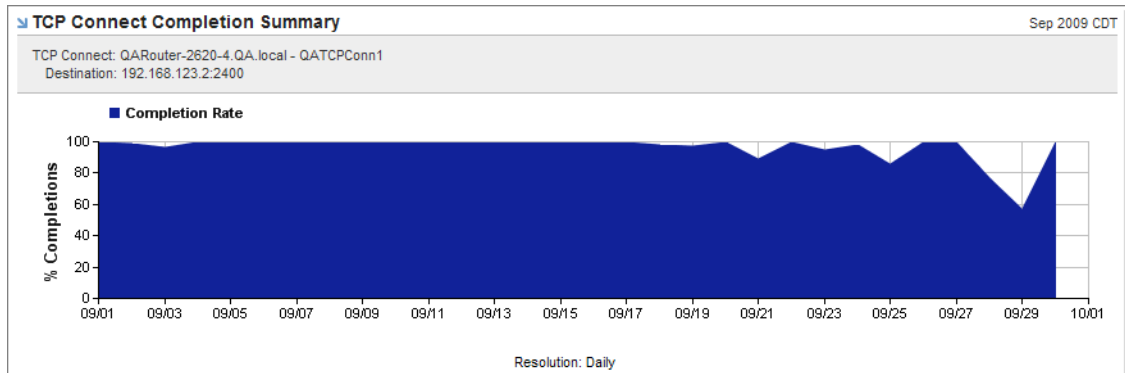
Displays the availability and unavailability percentages for an IP SLA TCP operation During the selected period.



- Context: This view requires a selected IP SLA TCP Connect test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avail: Availability (completions/initiations) as a percentage.
 - Unavail: Value calculated by subtracting the availability percentage from 100.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

TCP Connect Completion Summary

Displays the completion rate (percentage) for an IP SLA TCP Connect operation over the selected period.

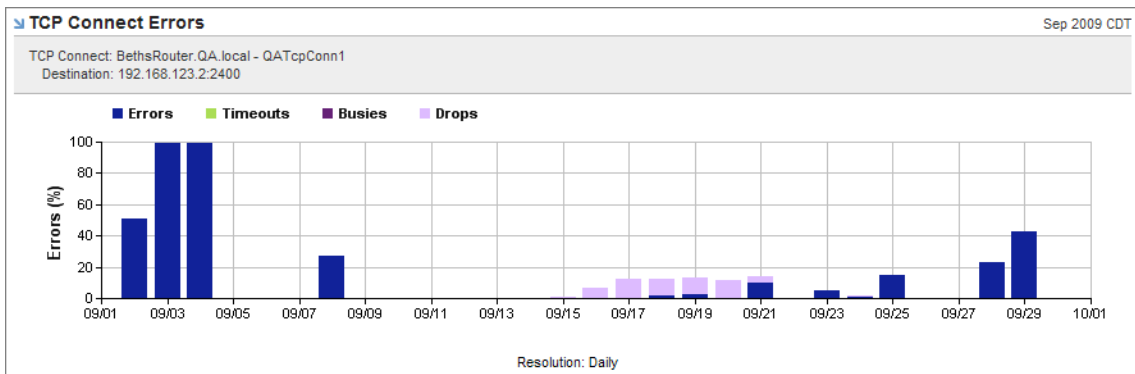


- Context: This view requires a selected IP SLA TCP Connect test to be displayed.

- Data:
- The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

TCP Connect Errors

Displays the error percentages, by type, for an IP SLA TCP Connect operation over the selected period.

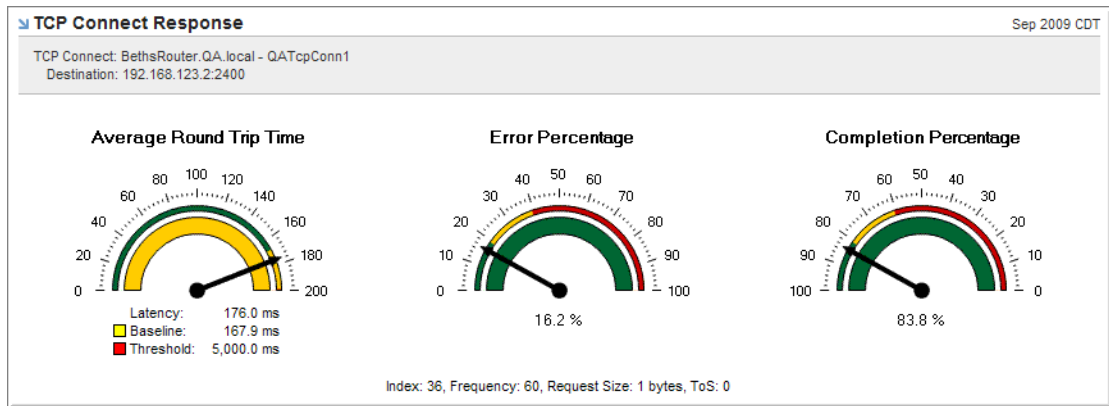


- Context: This view requires a selected IP SLA TCP Connect test to be displayed.
- Data: The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Errors: The total percentage of errored requests, excluding timeouts, busies, and drops
 - Timeouts: The percentage of requests that could not connect to the server
 - Busies: The percentage of occasions when a TCP Connect operation could not be initiated because a previous operation had not been completed
 - Drops: The percentage of occasions when a TCP Connect could not be initiated because of an internal error
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [TCP Connect Report](#).

TCP Connect Response

Displays the average round-trip time, error percentage, and completion percentage for an IP SLA TCP Connect operation during the selected period.

Gauge views are designed to provide a high-level indication of desirable and undesirable numbers according to baselines and thresholds.

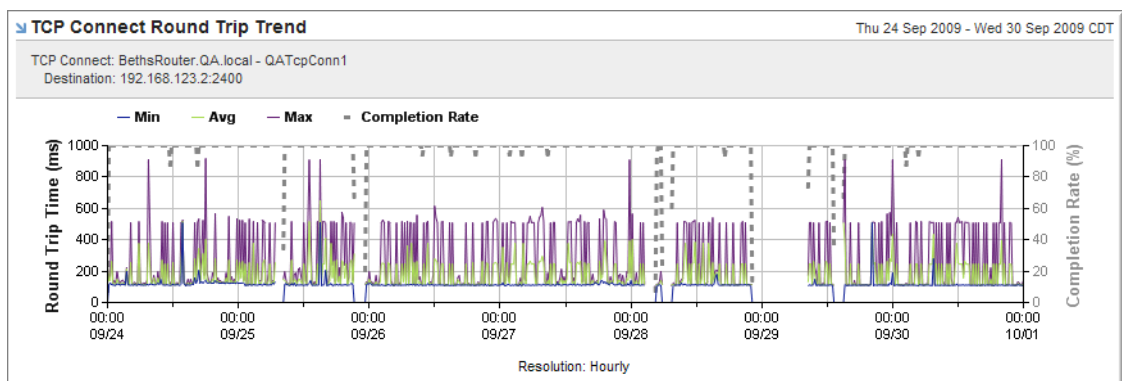


Note: This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.

- Context: This view requires a selected IP SLA TCP Connect test to be displayed.
- Styles: This view can be displayed as gauge chart only.
- Standard NetVoyant reports: This view is included in the [TCP Connect Report](#).

TCP Connect Round Trip Time Trend

Displays the minimum, maximum, and average round trip time with the completion percentage for an IP SLA TCP Connect operation over the selected period.



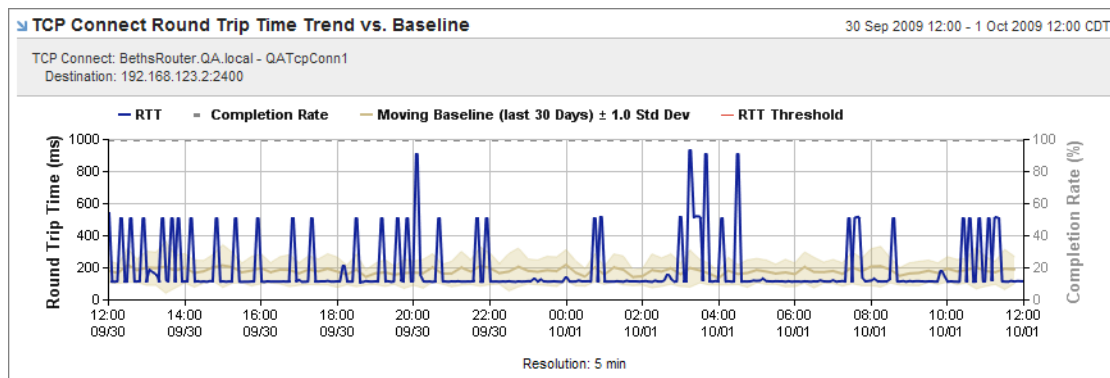
- Context: This view requires a selected IP SLA TCP Connect test to be displayed.
- Data: The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Min: The minimum observed round trip time for the operation. This expression is displayed only when the view resolution is greater than the poll rate.
 - Avg: The average round trip time for the operation
 - Max: The maximum observed round trip time for the operation. This expression is displayed only when the view resolution is greater than the poll rate.
 - Completion Rate: Percentage of completions to initiations
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.

- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

TCP Connect Round Trip Time Trend vs. Baseline

Displays the average round trip time vs. baseline (normal) for an IP SLA TCP Connect operation over the selected period.

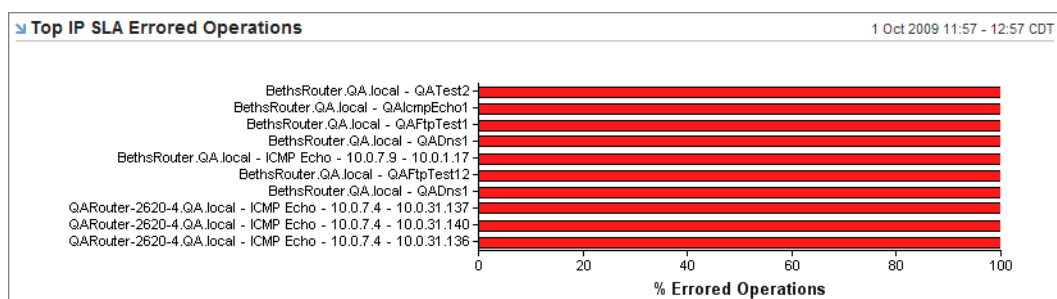
Note: The 30-day moving baseline is calculated using the value for each hour of the day and the percentage usage for each hour of the day compared to the theoretical maximum (threshold) for the operation over the selected period. The effects of a threshold change in an alarm profile assigned to the router or switch are not seen until NetVoyant recalculates the rolling baselines (midnight, by default).



- Context: This view requires a selected IP SLA TCP Connect test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - RTT: The average round trip time for the operation
 - Completion Rate: Percentage of completions to initiations
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [TCP Connect Report](#).

Top IP SLA Errored Operations

Displays the percentage of errored operations for those IP SLA operations in a reporting group that experienced the most errors during a selected period.

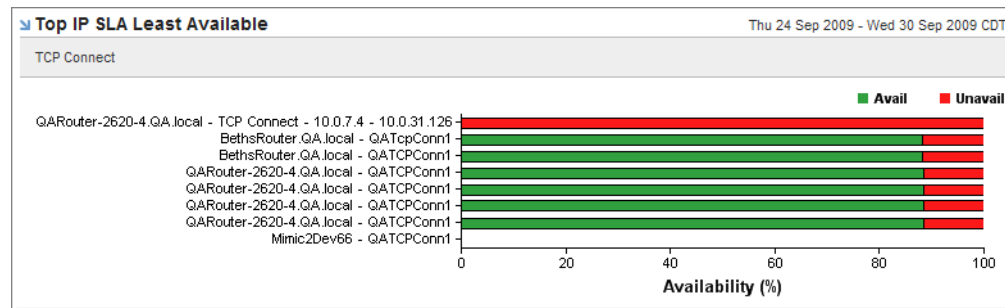


- Context: This view requires a selected reporting group, router, or switch to be displayed.

- Data: The metrics used to render this view are rttstats, rttjitter, and rtthttp which correspond to the IPSLA Statistics, IPSLA Jitter Statistics, and IPSLA HTTP Statistics datasets in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [IP SLA Report](#).
- Standard NetQoS Performance Center reports: This view is included in the IP SLA report and IP SLA Dashboard report.

Top IP SLA Least Available

Displays the availability and unavailability for the IP SLA operations in a reporting group that were least available (percentage of completions) during the selected period.



- Context: This view requires a selected reporting group, router, or switch to be displayed.
- Data: The metrics used to render this view are rttstats, rttjitter, and rtthttp which correspond to the IPSLA Statistics, IPSLA Jitter Statistics, and IPSLA HTTP Statistics datasets in NetVoyant. The view includes data for the following expressions:
 - Avail: The average completion rate for the operation
 - Unavail: Value calculated by subtracting the availability percentage from 100
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the IP SLA Dashboard report.

Top IP SLA Operations

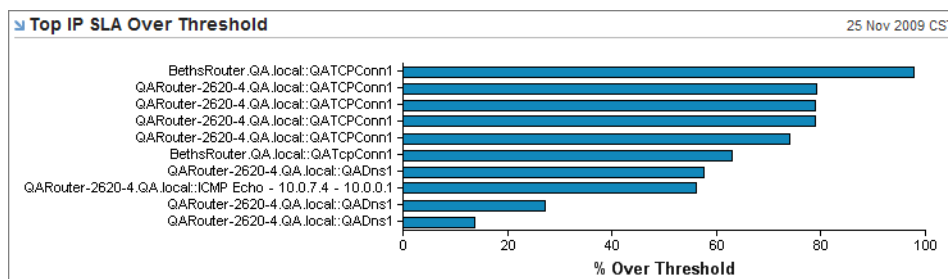
Displays type, source and destination address, average round trip time, and completion rate for those IP SLA operations in a reporting group or managed object that have the highest average round-trip time.

Top IP SLA Operations						Thu 24 Sep 2009 - Wed 30 Sep 2009 CDT	
Name	Type	Src	Dst	Avg RTT (ms)	Comp Rate (%)		
BethsRouter.QA.local - QAHttp1	HTTP	BethsRouter.QA.local	netqos.com/	256.7 ms	99.722%		
BethsRouter.QA.local - QAHttpOverwrite1	HTTP	BethsRouter.QA.local	netqos.com/	252.9 ms	99.722%		
QARouter-2620-4.QA.local - QATCPConn1	TCP Connect	QARouter-2620-4.QA.local	192.168.123.2:2400	175.1 ms	88.363%		
BethsRouter.QA.local - QATcpConn1	TCP Connect	BethsRouter.QA.local	192.168.123.2:2400	172.7 ms	88.244%		
QARouter-2620-4.QA.local - QADhcpTest1	DHCP	QARouter-2620-4.QA.local	Broadcast	166.9 ms	100.000%		
BethsRouter.QA.local - QATCPConn1	TCP Connect	BethsRouter.QA.local	192.168.123.2:2400	162.1 ms	88.274%		
QARouter-2620-4.QA.local - QATCPConn1	TCP Connect	QARouter-2620-4.QA.local	192.168.123.2:2400	159.6 ms	88.373%		
QARouter-2620-4.QA.local - QATCPConn1	TCP Connect	QARouter-2620-4.QA.local	192.168.123.2:2400	156.8 ms	88.363%		
QARouter-2620-4.QA.local - QATCPConn1	TCP Connect	QARouter-2620-4.QA.local	192.168.123.2:2400	152.5 ms	88.383%		
QARouter-2620-4.QA.local - QADns1	DNS	QARouter-2620-4.QA.local	63.225.133.99	137.1 ms	99.980%		

- Context: This view requires a selected reporting group, device, router, or switch to be displayed.
- Data: The metrics used to render this view are rttstats, rttjitter, and rtthttp which correspond to the IPSLA Statistics, IPSLA Jitter Statistics, and IPSLA HTTP Statistics datasets in NetVoyant.
To filter the data to display only those operations of a specific type, click the blue arrow at the upper-left corner of the view to access the view menu and select Edit. In the Select Operation Filter dialog, choose an IP SLA operation type from the Select Operation Filter list and click OK.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Operations Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Enterprise Summary report.

Top IP SLA Over Threshold

Displays the percent over threshold for those IP SLA operations in a reporting group or managed object that were the most over threshold during a selected period.



- Context: This view requires a selected reporting group, router, or switch to be displayed.
- Data: The metrics used to render this view are rttstats, rttjitter, and rtthttp which correspond to the IPSLA Statistics, IPSLA Jitter Statistics, and IPSLA HTTP Statistics datasets in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.

- Standard NetVoyant reports: This view is included in the [IP SLA Report](#).
- Standard NetQoS Performance Center reports: This view is included in the IP SLA report and IP SLA Dashboard report.

Top IP SLA RTT Deviation From Norm

Displays the type, source and destination address, normal (baseline) RTT value, and average RTT value for those IP SLA operations in a reporting group or managed object that have the highest deviation from the 30-day rolling baseline value for round-trip time during the selected period.

Name	Type	Src	Dst	Normal	Actual	Deviation (%)
QARouter-2620-4.QA.local - Path Echo - 10.0.7.4 - 10.0.31.136	Path Echo	QARouter-2620-4.QA.local	10.0.31.136	10.2 ms	20.6 ms	101.2
QARouter-2620-4.QA.local - ICMP Echo - 10.0.7.4 - 10.8.0.254	ICMP Echo	QARouter-2620-4.QA.local	10.8.0.254	2.4 ms	0.8 ms	-66.9
QARouter-2620-4.QA.local - QAPathEcho1	Path Echo	QARouter-2620-4.QA.local	192.168.123.2	44.4 ms	71.8 ms	61.6
QARouter-2620-4.QA.local - QAPathEcho1	Path Echo	QARouter-2620-4.QA.local	192.168.123.2	44.6 ms	70.8 ms	58.9
QARouter-2620-4.QA.local - QAPathEcho1	Path Echo	QARouter-2620-4.QA.local	192.168.123.2	46.0 ms	72.8 ms	58.4
QARouter-2620-4.QA.local - ICMP Echo - 10.0.7.4 - 10.8.0.254	ICMP Echo	QARouter-2620-4.QA.local	10.8.0.254	2.1 ms	1.4 ms	-33.6
BethsRouter.QA.local - QAPathEcho1	Path Echo	BethsRouter.QA.local	192.168.123.2	1.8 ms	2.2 ms	24.4
QARouter-2620-4.QA.local - QATCPConn1	TCP Connect	QARouter-2620-4.QA.local	192.168.123.2:2400	144.1 ms	175.1 ms	21.5
QARouter-2620-4.QA.local - QAHttp1	HTTP	QARouter-2620-4.QA.local	netqos.com/	91.3 ms	83.2 ms	-8.8
QARouter-2620-4.QA.local - QADns1	DNS	QARouter-2620-4.QA.local	63.225.133.99	148.2 ms	136.7 ms	-7.7

Search: Show Top: 10

- Context: This view requires a selected reporting group, router, or switch to be displayed.
- Data: The metrics used to render this view are rttstats, rttjitter, and rtthttp which correspond to the IPSLA Statistics, IPSLA Jitter Statistics, and IPSLA HTTP Statistics datasets in NetVoyant. To filter the data to display only those operations of a specific type, click the blue arrow at the upper-left corner of the view to access the view menu and select Edit. In the Select Operation Filter dialog, choose an IP SLA operation type from the Select Operation Filter list and click OK.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Deviation from Normal Report](#) and [IP SLA Report](#).
- Standard NetQoS Performance Center reports: This view is included in the IP SLA report, IP SLA Dashboard report, and Top Deviation from Normal report.

Top Paths

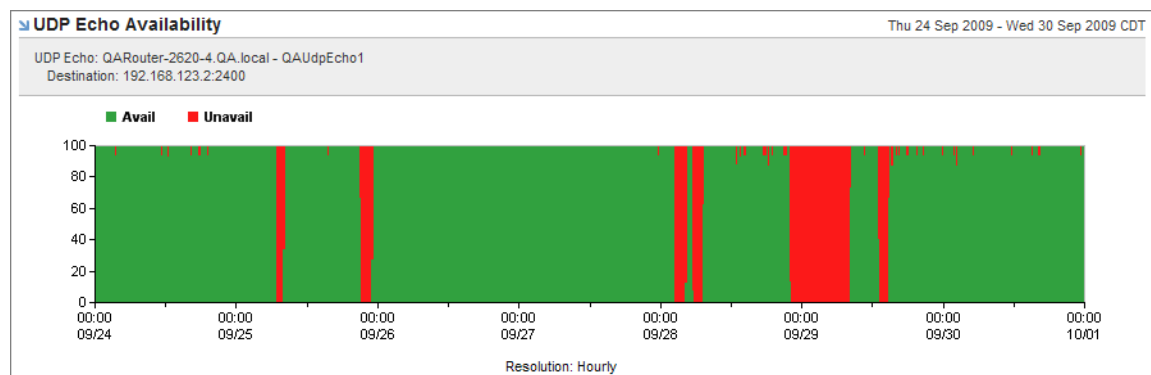
Displays the completion rate, number of hops, and the minimum, average, and maximum round trip times for paths in an IP SLA Path Echo operation during the selected period.

Top Paths					
Sep 2009 CDT					
Path Echo: BethsRouter.QA.local - QAPathEcho1					
Destination: 192.168.123.2					
Name	CompRate	# Hops	Min RTT	RTT	Max RTT
Path #1	99.35%	3	0.0 ms	2.2 ms	26.2 ms
Path #2	100.00%	5	1.7 ms	2.2 ms	8.2 ms
1 of 1					
Max Per Page: 10					

- Context: This view requires a selected IP SLA Path Echo test to be displayed.
- Data: The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expression:
 - CompRate: The round trip completion rate for the path by number.
 - # Hops: The number of hops on the path
 - Min RTT: The minimum RTT value observed for the path
 - RTT: The average RTT value for the path
 - Maximum RTT: The maximum RTT value observed for the path
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Path Echo Response Report](#).

UDP Echo Availability

Displays the availability and unavailability percentages for an IP SLA UDP Echo operation over the selected period.

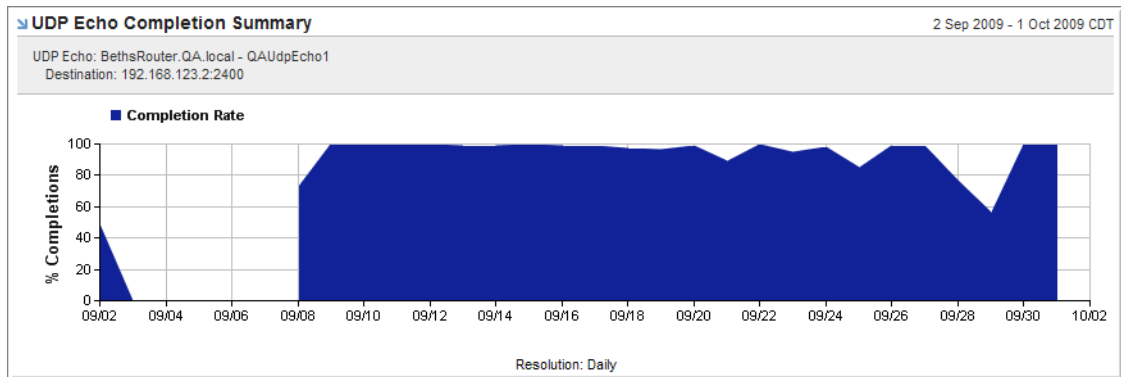


- Context: This view requires a selected IP SLA UDP Echo test to be displayed.
- Data: The metric used to render this view is rttstats, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avail: The average completion rate for the operation
 - Unavail: Value calculated by subtracting the availability percentage from 100
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.

- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

UDP Echo Completion Summary

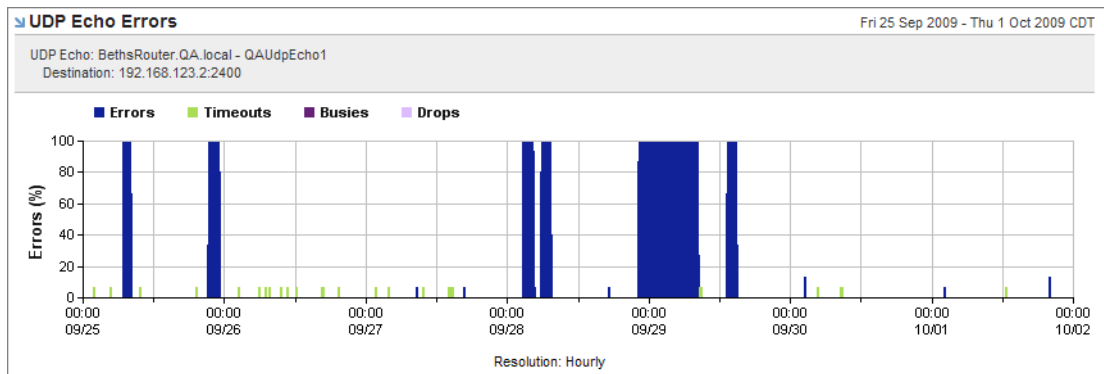
Displays the completion rate (percentage) for an IP SLA UDP Echo operation over the selected period.



- Context: This view requires a selected IP SLA UDP Echo test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IPSLA Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

UDP Echo Errors

Displays the error percentages for an IP SLA UDP Echo operation over the selected period.



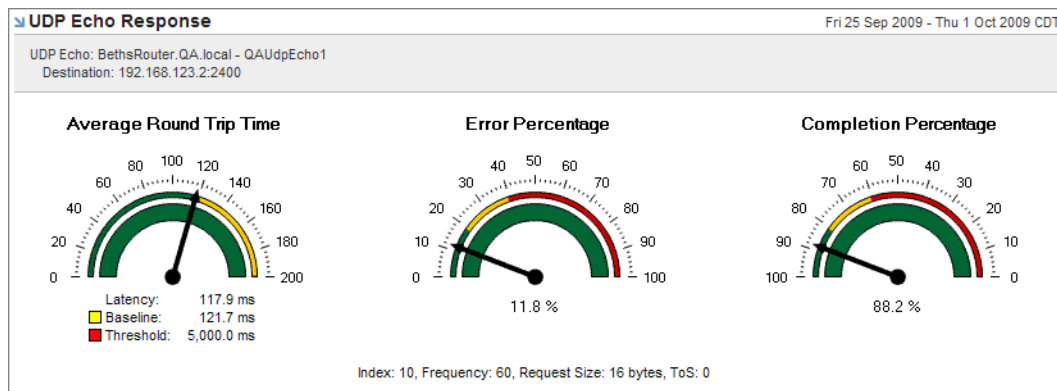
- Context: This view requires a selected IP SLA UDP Echo test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IPSLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Errors: The total percentage of errored requests, excluding timeouts, busies, and drops
 - Timeouts: The percentage of requests that could not connect to the server

- **Busies:** The percentage of occasions when a UDP Echo operation could not be initiated because a previous operation had not been completed
- **Drops:** The percentage of occasions when a UDP Echo could not be initiated because of an internal error
- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is included in the [UDP Echo Response Report](#).

UDP Echo Response

Displays the average round-trip time, error percentage, and completion percentage for an IP SLA UDP Echo operation during the selected period.

Gauge views are designed to provide a high-level indication of desirable and undesirable numbers according to baselines and thresholds.



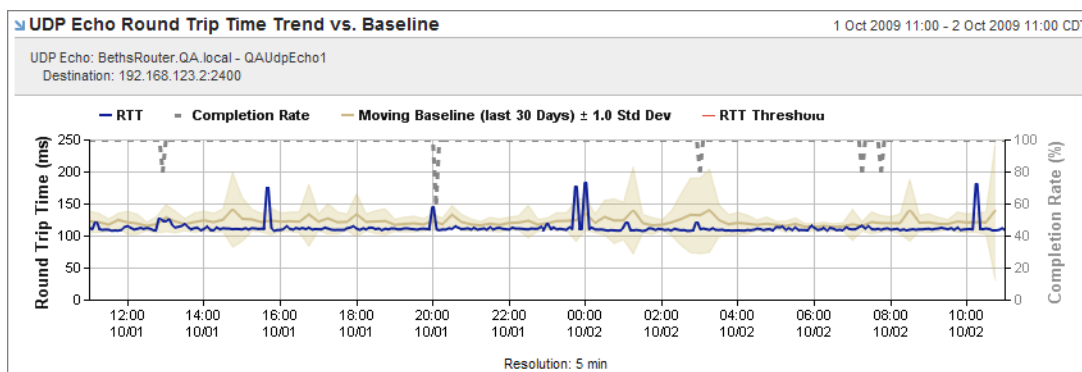
Note: This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.

- **Context:** This view requires a selected IP SLA UDP Echo test to be displayed.
- **Styles:** This view can be displayed as gauge chart only.
- **Standard NetVoyant reports:** This view is included in the [UDP Echo Response Report](#).

UDP Echo Round Trip Time Trend vs. Baseline

Displays the average round trip time vs. baseline (normal) for an IP SLA UDP Echo operation over the selected period.

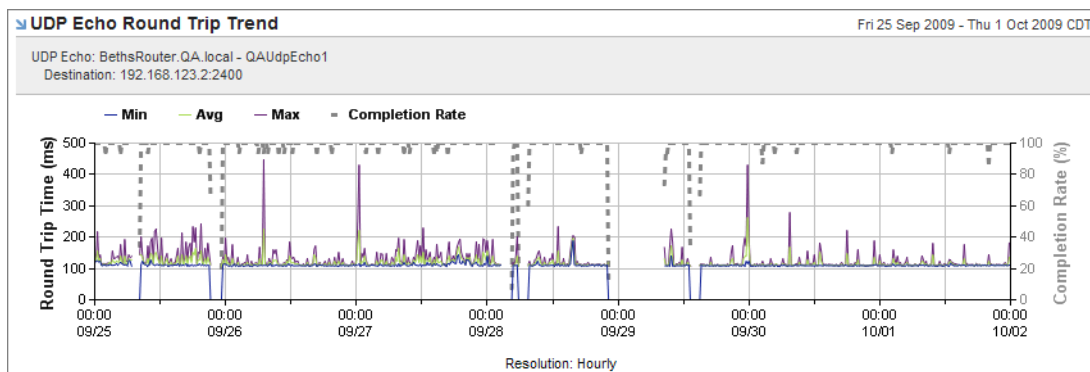
Note: The 30-day moving baseline is calculated using the value for each hour of the day and the percentage usage for each hour of the day compared to the theoretical maximum (threshold) for the operation over the selected period. The effects of a threshold change in an alarm profile assigned to the router or switch are not seen until NetVoyant recalculates the rolling baselines (midnight, by default).



- Context: This view requires a selected IP SLA UDP Echo test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IP SLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - RTT: The average round trip time for the operation
 - Completion Rate: Percentage of completions to initiations
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [UDP Echo Response Report](#).

UDP Echo Round Trip Trend

Displays the minimum, maximum, and average round trip time with the completion percentage for an IP SLA UDP Echo operation over the selected period.

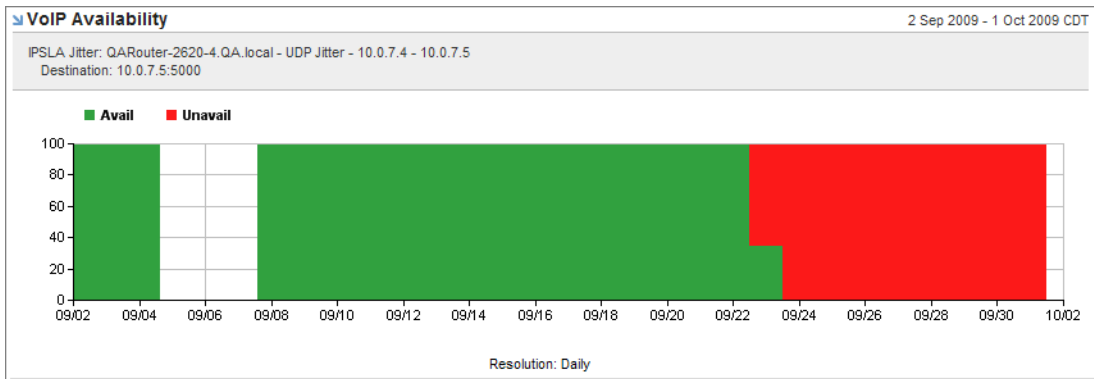


- Context: This view requires a selected IP SLA UDP Echo test to be displayed.
- Data: The metric used to render this view is `rttstats`, which corresponds to the IP SLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Min: The minimum observed round trip time for the operation. This expression is displayed only when the view resolution is greater than the poll rate.
 - Avg: The average round trip time for the operation
 - Max: The maximum observed round trip time for the operation. This expression is displayed only when the view resolution is greater than the poll rate.
 - Completion Rate: Percentage of completions to initiations
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.

- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

VoIP Availability

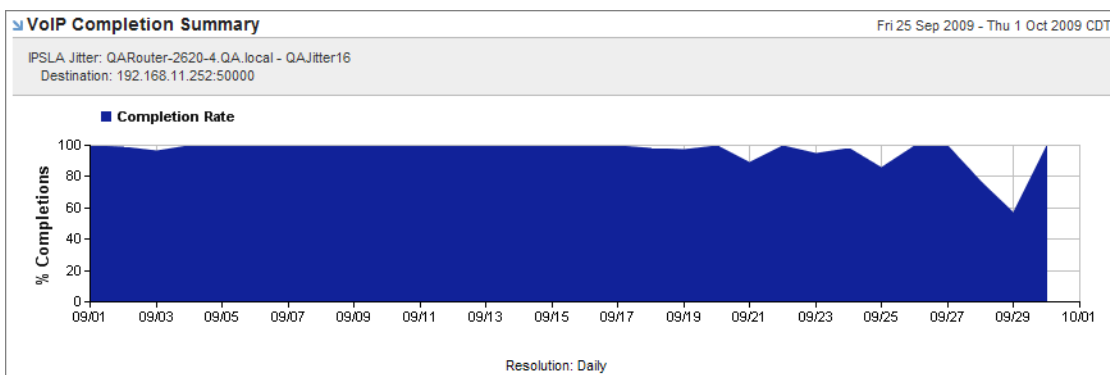
Displays the availability and unavailability percentages for an IP SLA VoIP Jitter operation over the selected period.



- Context: This view requires a selected IP SLA Jitter test to be displayed.
- Data: The metric used to render this view is `rttjitter`, which corresponds to the IPSLA Jitter Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avail: The average completion rate for the operation
 - Unavail: Value calculated by subtracting the availability percentage from 100
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

VoIP Completion Summary

Displays the completion rate (percentage) for an IP SLA VoIP Jitter operation over the selected period.

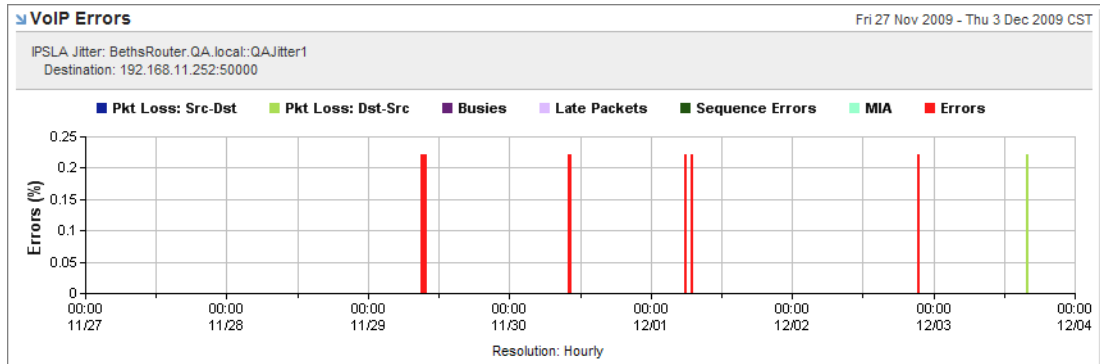


- Context: This view requires a selected IP SLA Jitter test to be displayed.
- Data: The metric used to render this view is `rttjitter`, which corresponds to the IPSLA Jitter Statistics dataset in NetVoyant.

- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

VoIP Errors

Displays the error percentages for an IP SLA VoIP Jitter operation over the selected period.

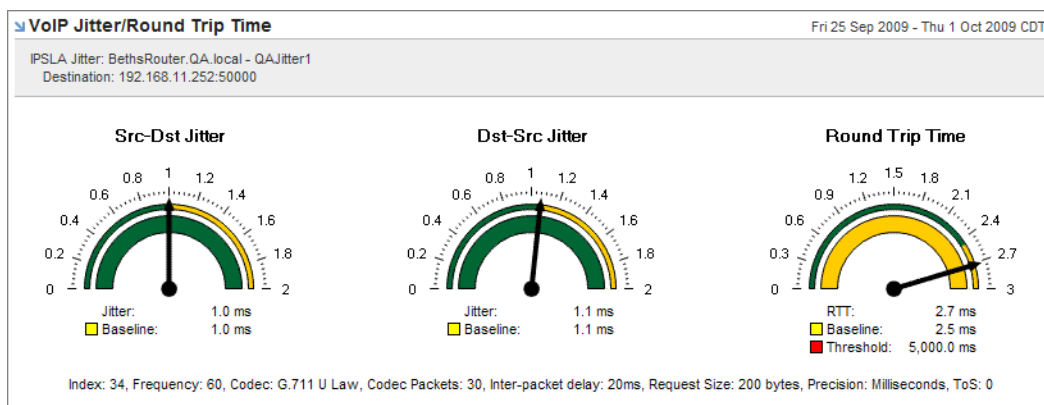


- **Context:** This view requires a selected IP SLA Jitter test to be displayed.
- **Data:** The metric used to render this view is `rttstats`, which corresponds to the IP SLA Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - **Pkt Loss: Src-Dst:** The packet loss percentage on source to destination
 - **Pkt Loss: Dst-Src:** The packet loss percentage on destination to source
 - **Busies:** The percentage of occasions when the VoIP Jitter operation could not be initiated because a previous operation had not been completed
 - **Late Packets:** The percentage of occasions when a packet arrived late
 - **Sequence Errors:** The percentage of occasions when packets arrived out-of-sequence
 - **MIA:** The percentage of occasions where one or more packets were missing
 - **Errors:** The total percentage of errored requests
- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is included in the [Enhanced UDP For Voice \(VoIP\) Report](#).

VoIP Jitter/Round Trip Time

Displays the average source-to-destination jitter, destination-to-source jitter, and round trip time for an IP SLA VoIP Jitter operation during the selected period.

Gauge views are designed to provide a high-level indication of desirable and undesirable numbers according to baselines and thresholds.

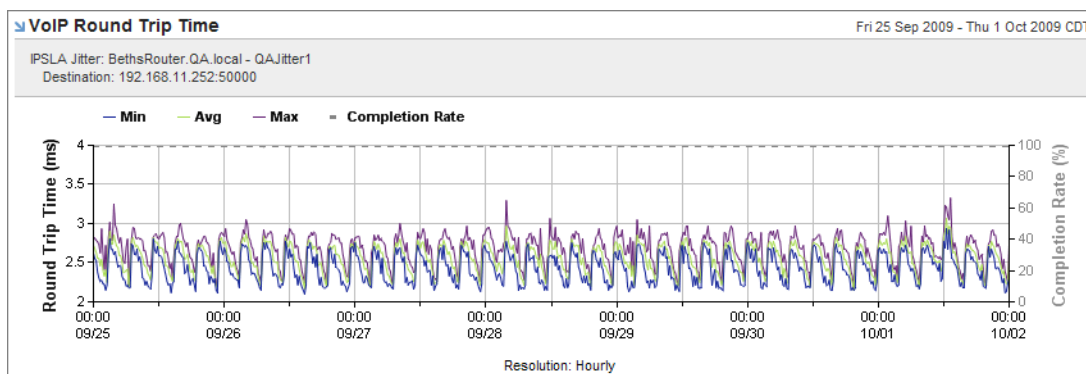


Note: This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.

- Context: This view requires a selected IP SLA Jitter test to be displayed.
- Styles: This view can be displayed as gauge chart only.
- Standard NetVoyant reports: This view is included in the [Enhanced UDP For Voice \(VoIP\) Report](#).

VoIP Round Trip Time

Displays the minimum, maximum, and average round trip time with the completion percentage for an IP SLA VoIP Jitter operation over the selected period.

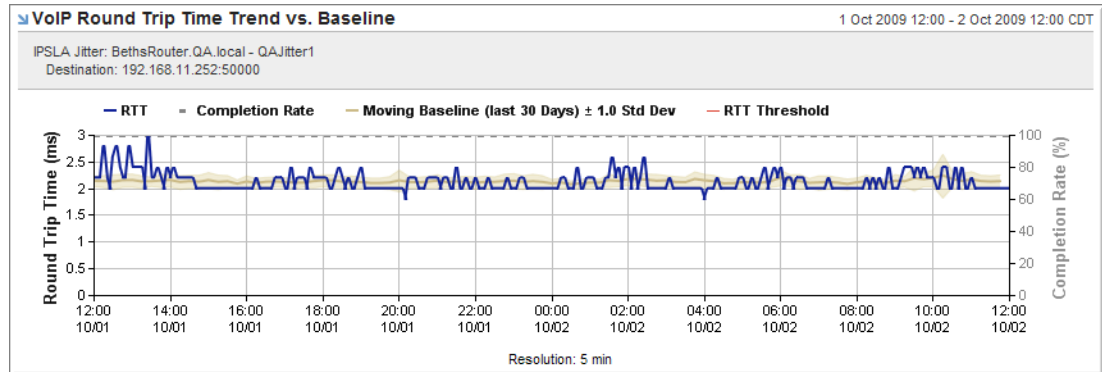


- Context: This view requires a selected IP SLA Jitter test to be displayed.
- Data: The metric used to render this view is `rttjitter`, which corresponds to the IPSLA Jitter Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Min: The minimum observed round trip time for the operation
 - Avg: The average round trip time for the operation
 - Max: The maximum observed round trip time for the operation
 - Completion Rate: Percentage of completions to initiations
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Enhanced UDP For Voice \(VoIP\) Report](#).

VoIP Round Trip Time vs. Baseline

Displays the average round trip time vs. baseline (normal) for an IP SLA VoIP operation over the selected period.

Note: The 30-day moving baseline is calculated using the value for each hour of the day and the percentage usage for each hour of the day compared to the theoretical maximum (threshold) for the operation over the selected period. The effects of a threshold change in an alarm profile assigned to the router or switch are not seen until NetVoyant recalculates the rolling baselines (midnight, by default).



- Context: This view requires a selected IP SLA Jitter test to be displayed.
- Data: The metric used to render this view is `rttjitter`, which corresponds to the IPSLA Jitter Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - RTT: The average round trip time for the operation
 - Completion Rate: Percentage of completions to initiations
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

NAVIGATION VIEWS

The following topics describe the views related to group navigation and filters that you can use to customize report pages. These “views” provide tools for changing or filtering a reporting group, time filter, IP SLA operation type, metric, or managed object name to affect the data displayed in the report page.

Group Navigation

This view inserts two lists in the report page that let you:

- Change the context for the displayed data on a report page to a selected network or group.
- Filter the report data on the report page to a selected time filter.

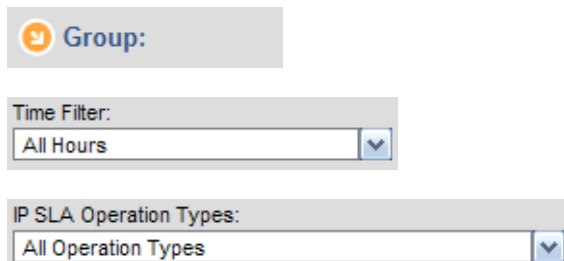


A dropdown menu labeled "Time Filter:" with "All Hours" selected and a downward arrow icon.

Group/IP SLA Navigation

This view inserts three lists in the report page that let you:

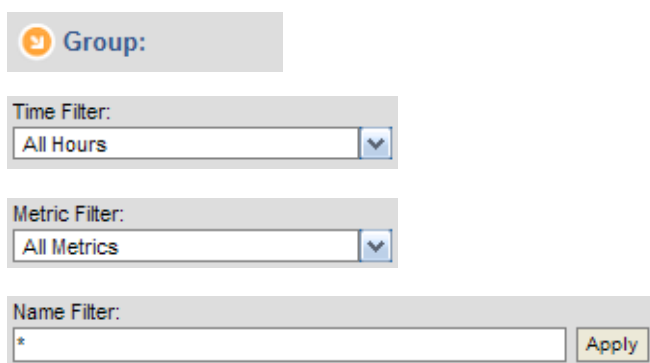
- Change the context for the displayed data on a report page to a selected network or group.
- Filter the report data on the report page to a selected time filter.
- Filter the report data on the report page to only the selected IP SLA operation type.

A set of three filters. The first is a "Group:" button with a network icon. The second is a "Time Filter:" dropdown menu with "All Hours" selected. The third is an "IP SLA Operation Types:" dropdown menu with "All Operation Types" selected.

Group/Metrics/Filter Navigation

This view inserts four lists at the top of the report page that let you:

- Change the context for the displayed data on a report page to a selected network or group.
- Filter the report data on the report page to a selected time filter.
- Filter the report data on the report page to a selected type of data.
- Filter the report data on the report page to only those objects that have a name that matches a filter expression.

A set of four filters. The first is a "Group:" button with a network icon. The second is a "Time Filter:" dropdown menu with "All Hours" selected. The third is a "Metric Filter:" dropdown menu with "All Metrics" selected. The fourth is a "Name Filter:" text input field with an asterisk "*" and an "Apply" button.

IPSLA Navigation

This view inserts two lists in the report page that let you:

- Filter the report data on the report page to only the selected IP SLA operation type.
- Filter the report data on the report page to a selected time filter.

A set of two filters. The first is an "IP SLA Operation Types:" dropdown menu with "All Operation Types" selected. The second is a "Time Filter:" dropdown menu with "All Hours" selected.

Time Filter:
 ▼

Metrics/Filter Navigation

This view inserts three lists in the report page that let you:

- Filter the report data on the report page to a selected time filter.
- Filter the report data on the report page to a selected type of data.
- Filter the report data on the report page to only those objects that have a name that matches a filter expression.

Time Filter:
 ▼

Metric Filter:
 ▼

Name Filter:

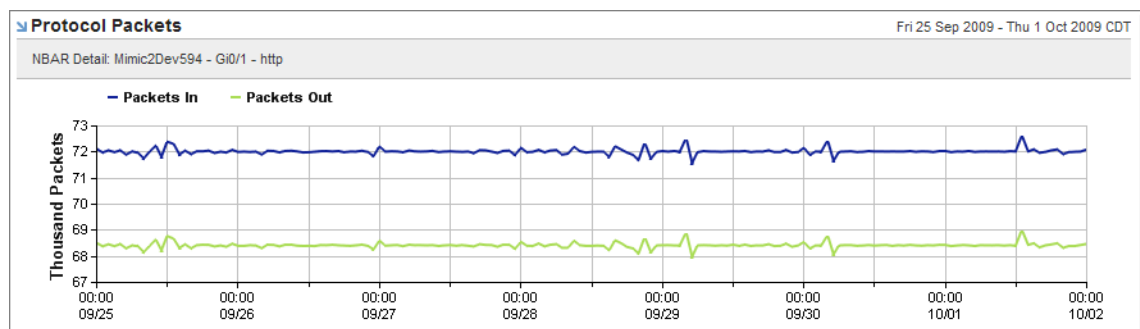
NBAR VIEWS

The following sections describe the views related to protocols (NBAR) that you can add to your report pages. This information includes the view styles available for each view, the metric used to render the view, and the standard report pages that include the view.

NBAR views are designed to provide status and performance information about protocols within reporting groups.

Protocol Packets

Displays the number of inbound and outbound packets for an NBAR protocol over the selected period.

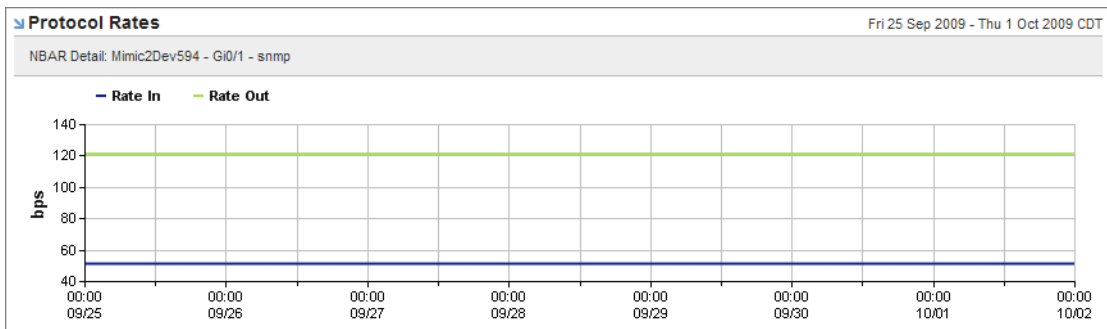


- Context: This view requires a selected protocol to be displayed.
- Data: The metric used to render this view is nbarstats, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Packets In: Number of inbound packets

- Packets Out: Number of outbound packets
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Protocol Detail Report](#).

Protocol Rates

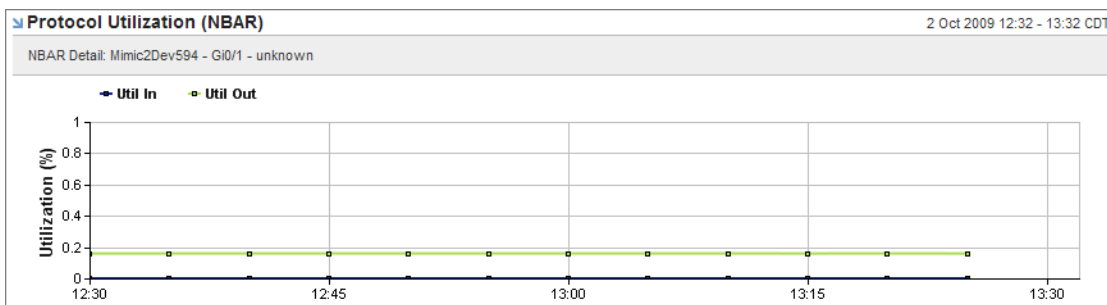
Displays the rates (bits/second) of inbound and outbound packets for an NBAR protocol during the selected period.



- Context: This view requires a selected protocol to be displayed.
- Data: The metric used to render this view is nbarstats, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Rate In: Inbound rate (bps) for the interface
 - Rate Out: Outbound rate (bps) for the interface
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Protocol Detail Report](#).

Protocol Utilization (NBAR)

Displays the inbound and outbound usage percentages for an NBAR protocol during the selected period.

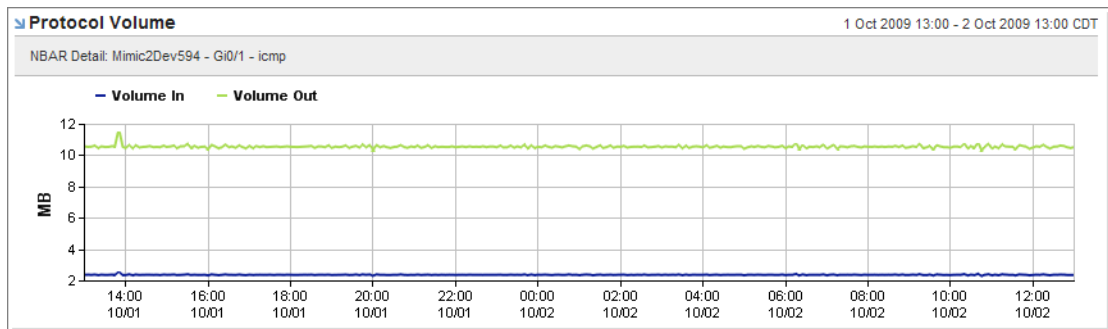


- Context: This view requires a selected protocol to be displayed.
- Data: The metric used to render this view is nbarstats, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Util In: Usage percentage for inbound traffic

- Util Out: Usage percentage for outbound traffic
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Protocol Detail Report](#).

Protocol Volume

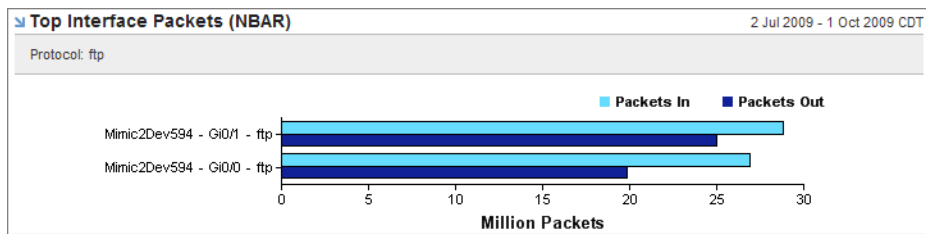
Displays the inbound and outbound volume (MB) for an NBAR protocol over the selected period.



- Context: This view requires a selected protocol to be displayed.
- Data: The metric used to render this view is nbarstats, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Volume In: Volume (MB) of inbound traffic
 - Volume Out: Volume (MB) of outbound traffic
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Protocol Detail Report](#).

Top Interface Packets (NBAR)

Displays the number of inbound and outbound packets, by interface, for an NBAR protocol on those interfaces with the highest total number of packets during the selected period.

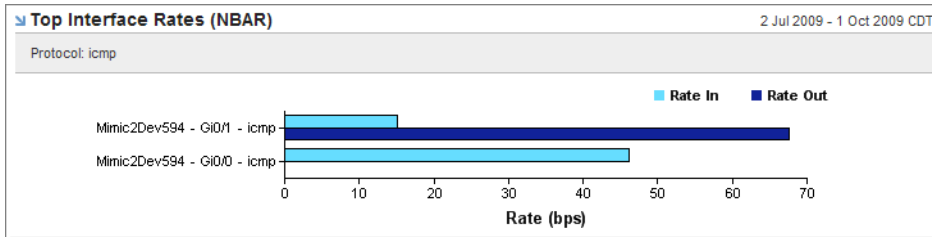


- Context: This view requires a selected protocol to be displayed.
- Data: The metric used to render this view is nbarstats, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Packets In: Number of inbound packets
 - Packets Out: Number of outbound packets
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.

- Standard NetVoyant reports: This view is included in the [Protocol Summary Report](#) and [Protocol Detail Report](#).

Top Interface Rates (NBAR)

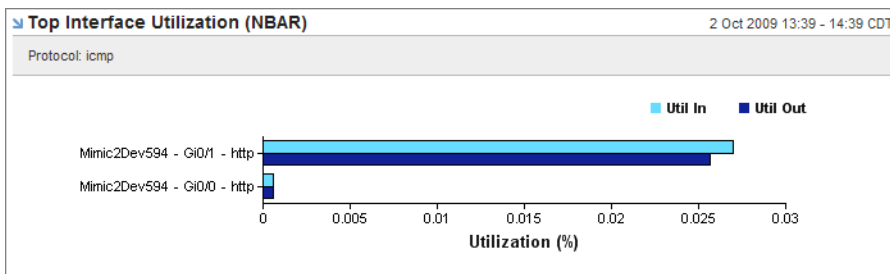
Displays the rate (bits per second) of inbound and outbound packets, by interface, for an NBAR protocol on those interfaces with the highest combined rate during the selected period.



- Context: This view requires a selected protocol to be displayed.
- Data: The metric used to render this view is nbarstats, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Rate In: Transmission rate (bps) for inbound packets
 - Rate Out: Transmission rate (bps) for outbound packets
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Protocol Summary Report](#) and [Protocol Detail Report](#).

Top Interface Utilization (NBAR)

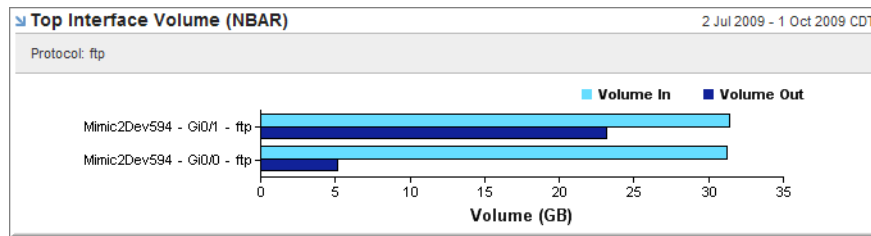
Displays the usage percentage of inbound and outbound traffic, by interface, for an NBAR protocol on those interfaces with the highest combined usage during the selected period.



- Context: This view requires a selected protocol to be displayed.
- Data: The metric used to render this view is nbarstats, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Rate In: Transmission rate (bps) for inbound packets
 - Rate Out: Transmission rate (bps) for outbound packets
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Protocol Summary Report](#).

Top Interface Volume (NBAR)

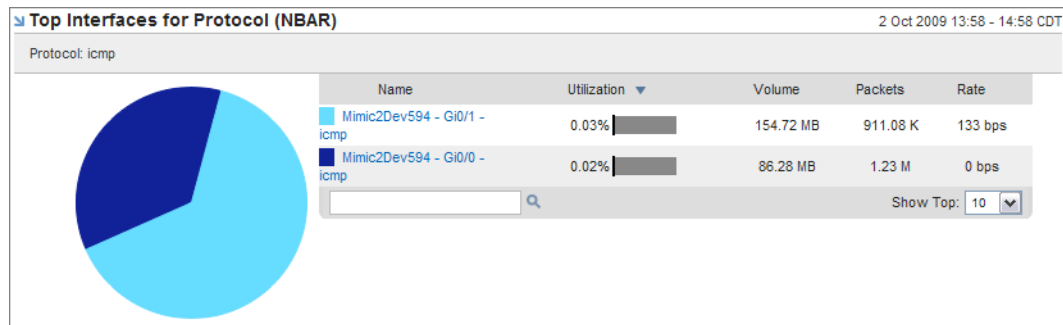
Displays the volume of inbound and outbound traffic, by interface, for an NBAR protocol on those interfaces with the highest combined volume during the selected period.



- Context: This view requires a selected protocol to be displayed.
- Data: The metric used to render this view is `nbarstats`, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Volume In: Total volume (MB) for inbound packets
 - Volume Out: Total volume (MB) for outbound packets
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Protocol Summary Report](#).

Top Interfaces for Protocol (NBAR)

Displays the packet volume values for an NBAR protocol on those interfaces experiencing the highest levels of usage during the selected period.



- Context: This view requires a selected protocol to be displayed.
- Data: The metric used to render this view is `nbarstats`, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization: Total protocol usage (%) for the interface
 - Volume: Total protocol volume (MB) for the interface
 - Packets: Total number of protocol packets for the interface
 - Rate: Average protocol rate (bps) for the interface

Styles: This view can be displayed as a table and pie chart only.

Standard NetVoyant reports: This view is included in the [Protocol Summary Report](#).

POLL INSTANCE VIEWS

The following topics describe the views related to poll instances that you can add to your report pages. This information includes the view styles available for each view, the metric used to render the view, and the standard report pages that include the view.

When the NetVoyant Topology service gathers data from a device, it correlates all OID-labeled data for one managed object with one poll instance. When it gathers data from your server that supports the Host Resources MIB, it correlates data for all OIDs in that MIB (hrStorageSize, hrStorageUsed, hrStorageAllocationFailures) for one hard drive with one poll instance. NetVoyant correlates all data for all OIDs for another hard drive with a separate poll instance. When a device collects data for a polled MIB table from four managed objects, it has four correlated poll instances.

Poll Instance Details

Displays detailed information of the storage or memory volume for a poll instance.

- **Context:** This view requires a selected server storage volume to be displayed.
- **Data:** This view uses multiple metrics to render property information for the managed object. This view includes values for the following attributes:
 - **Name:** Poll instance name as defined by Poll Instance Name template for the dataset in the NetVoyant console.
 - **Description:** Poll instance description as defined by Poll Instance Description template for the dataset in the NetVoyant console.
 - **Device sysName:** Device name as identified in the sysName OID on the device.
 - **Device sysDescr:** Device description as identified in the sysDescr OID on the device.
 - **Polling Enabled:** Whether polling is enabled for the device. When polling is enabled, NetVoyant gathers data for the device.
 - **Polling Station:** NetVoyant server that polls the device for SNMP statistics. In a distributed configuration, this is the poller that polls the device. In a standalone configuration, the poller is the Master console.
 - **Poll Rate:** Poll rate (interval) for the device
 - **Properties:** Properties configured for the poll instance
 - **Storage:** (*Storage volumes only*) The name of the storage volume
 - **Type:** (*Storage volumes only*) The storage volume type
- **Styles:** This view can be displayed as a table only.
- **Standard NetVoyant reports:** This view is included in the [Cisco Memory Pool Performance Report](#), [Cisco Switch Performance Report](#), [Server Storage Performance Report](#), and [CBQoS Class Map Detail Report](#).

Poll Instance List

Displays a detailed list of the poll instances in a selected reporting group or managed object. The information presented is similar to what is displayed when you perform a poll instance search.

Note: This view cannot be edited in the Custom View Wizard.

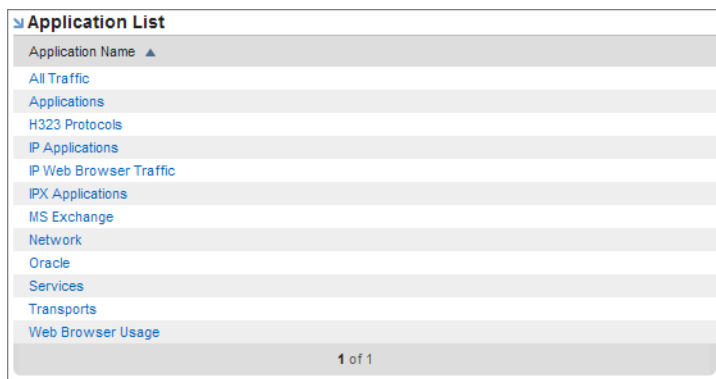
- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: This view uses multiple metrics to render property information for the reporting group or managed object. This view includes values for the following attributes:
 - Name: The poll instance name as defined by Poll Instance Name template for the dataset in the NetVoyant console
 - Device: The device name as identified in the sysName OID on the device
 - Metrics: The dataset used for the poll instance
 - Device: The device name as identified in the sysName OID on the device
 - Polling Status: The device current polling status, which can be one of the following: Enabled, Disabled, Manually Disabled, Auto-Disabled, Expiring, Off-line, Out-of-scope
 - Polling Expiration: When an interface status is Auto-disabled or Out-of-scope, this is the date and time of its last poll instance/interface expiration. Each dataset has a setting for poll instance expiration. When NetVoyant determines that a poll instance or interface is out-of-scope or unresponsive, its expiration clock starts and elapses according to the number of days in the dataset. When it expires, the poll instance or interface does not exist for that device.
 - Description: The poll instance description as defined by the Poll Instance Description template for the Interface Statistics dataset in the NetVoyant console
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

PROTOCOL VIEWS

The following topics describe the views related to NBAR and Remote Monitoring (RMON) protocol data that you can add to your report pages. Also listed are the view styles possible for each view and the standard report pages on which each view is displayed.

Application List

Displays a list of applications observed by an RMON probe in a reporting group or attached to a managed object. This view lets you quickly drill in to see more information about a selected application's protocols.

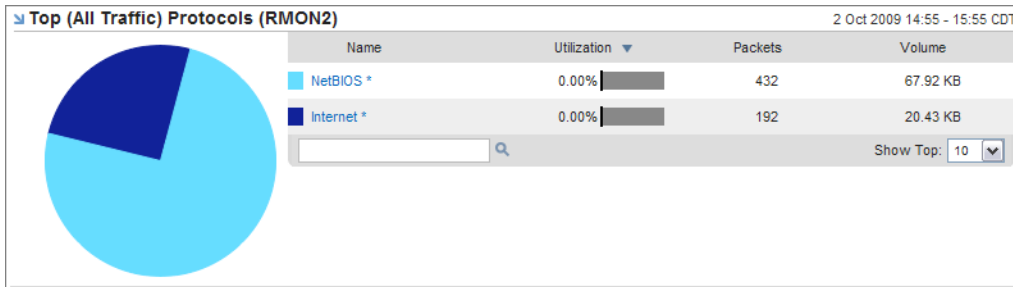


- Context: This view requires a selected reporting group, device, or switch to be displayed.

- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top (All Traffic) Protocols (RMON2)

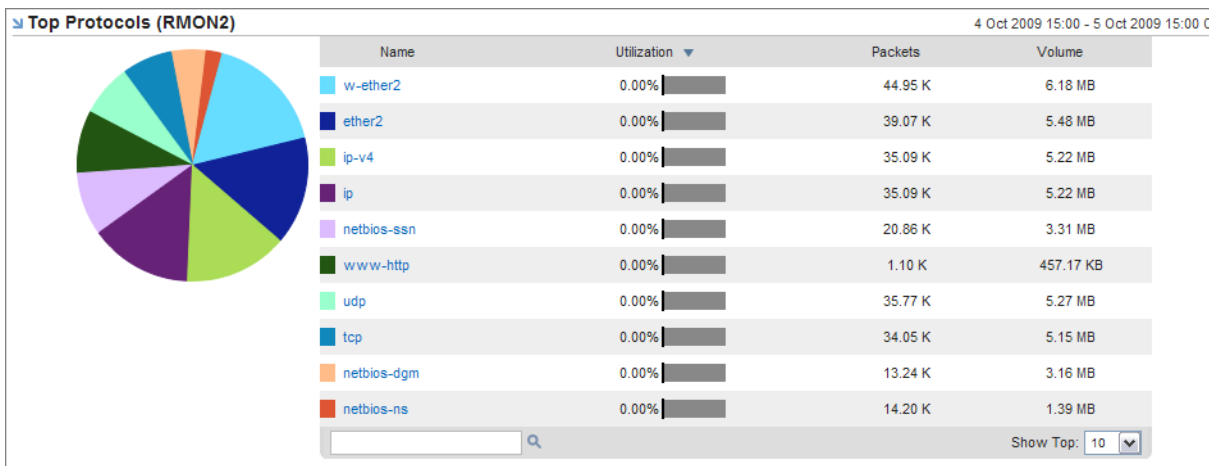
Displays the usage, volume, and packet statistics observed by an RMON probe in a reporting group or attached to a managed object for protocols with the highest usage during the selected period.



- Context: This view requires a selected reporting group, device, or switch to be displayed.
- Data: The metric used to render this view is nbarstats, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization: Average usage (%) for the protocol
 - Packets: Number of packets for the protocol
 - Volume: Volume (MB) for the protocol
- Styles: This view can be displayed as a table/pie chart only.
- Standard NetVoyant reports: This view is included in the [Protocol Distribution Report](#).

Top Application Protocols (RMON2)

Displays the usage, volume, and packet statistics observed by an RMON probe in a reporting group or attached to a managed object for protocols with the highest usage during the selected period.



- Context: This view requires a selected reporting group, device, or switch to be displayed.

- **Data:** The metric used to render this view is nbarstats, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization: Average usage (%) for the application
 - Packets: Number of packets for the application
 - Volume: Volume (MB) for the application
- **Styles:** This view can be displayed as a table/pie chart only.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

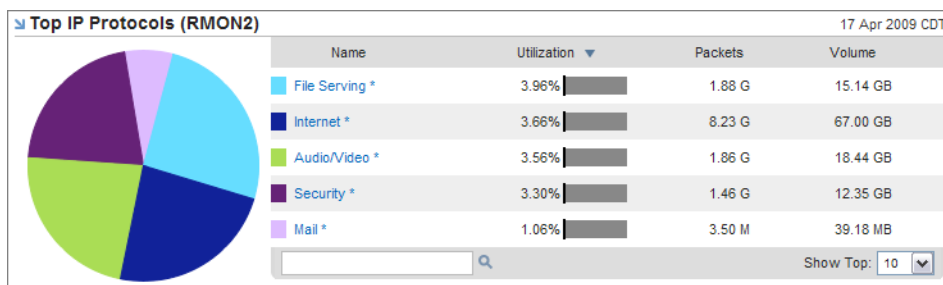
Top H323 Protocols (RMON2)

Displays the number and usage of inbound and outbound packets for H323 protocols in a reporting group or on a managed object with the highest number of packets during the selected period.

- **Context:** This view requires a selected reporting group, device, or switch to be displayed.
- **Data:** The metric used to render this view is protodist, which corresponds to the Protocol Distribution (RMON2) dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization: Average usage (%) for the application
 - Packets: Number of packets for the application
 - Volume: Volume (MB) for the application
- **Styles:** This view can be displayed as a table/pie chart only.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top IP Protocols (RMON2)

Displays the number and usage of inbound and outbound packets for IP protocols in a reporting group or on a managed object with the highest number of packets during the selected period.



- **Context:** This view requires a selected reporting group, device, or switch to be displayed.
- **Data:** The metric used to render this view is protodist, which corresponds to the Protocol Distribution (RMON2) dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization: Average usage (%) for IP applications
 - Packets: Number of packets for IP applications
 - Volume: Volume (MB) for IP applications
- **Styles:** This view can be displayed as a table/pie chart only.

-
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
 - Standard NetQoS Performance Center reports: This view is included in the Top Protocols (RMON/NBAR) report.

Top IPX Protocols (RMON2)

Displays the number and usage of inbound and outbound packets for IPX protocols in a reporting group or on a managed object with the highest number of packets during the selected period.

- Context: This view requires a selected reporting group, device, or switch to be displayed.
- Data: The metric used to render this view is `protodist`, which corresponds to the Protocol Distribution (RMON2) dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization: Average usage (%) for IPX applications
 - Packets: Number of packets for IPX applications
 - Volume: Volume (MB) for IPX applications
- Styles: This view can be displayed as a table/pie chart only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

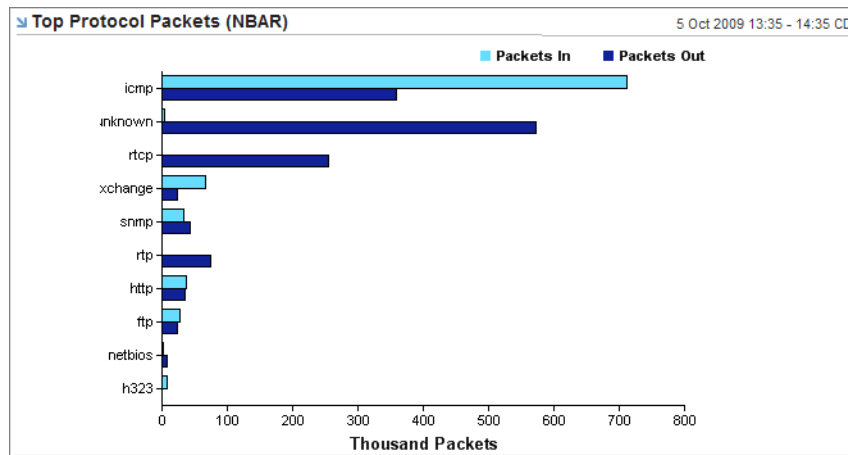
Top Network Protocols (RMON2)

Displays the number and usage of inbound and outbound packets for all network protocols in a reporting group or on a managed object with the highest number of packets during the selected period.

- Context: This view requires a selected reporting group, device, or switch to be displayed.
- Data: The metric used to render this view is `protodist`, which corresponds to the Protocol Distribution (RMON2) dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization: Average usage (%) for all network applications
 - Packets: Number of packets for all network applications
 - Volume: Volume (MB) for all network applications
- Styles: This view can be displayed as a table/pie chart only.
- Standard NetVoyant reports: This view is included in the [Protocol Distribution Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Protocols (RMON/NBAR) report.

Top Protocol Packets (NBAR)

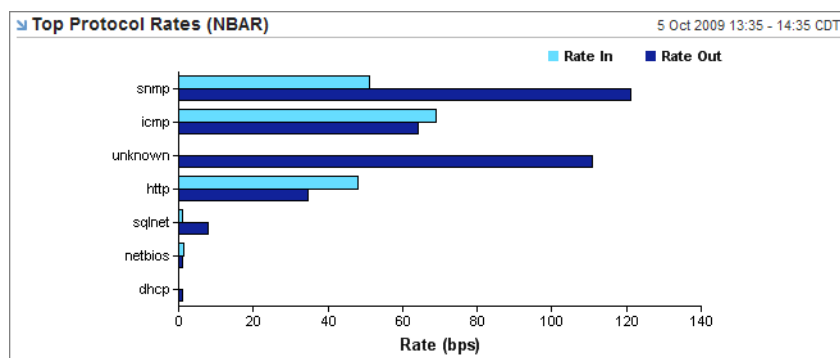
Displays the number of inbound and outbound packets for those protocols in a reporting group with the highest number of packets during the selected period.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is nbarstats, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Packets In: Number of inbound packets
 - Packets Out: Number of outbound packets
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Protocol Distribution Report](#).

Top Protocol Rates (NBAR)

Displays the rate (bits per second) of inbound and outbound packets for those protocols in a reporting group with the highest combined rate during the selected period.

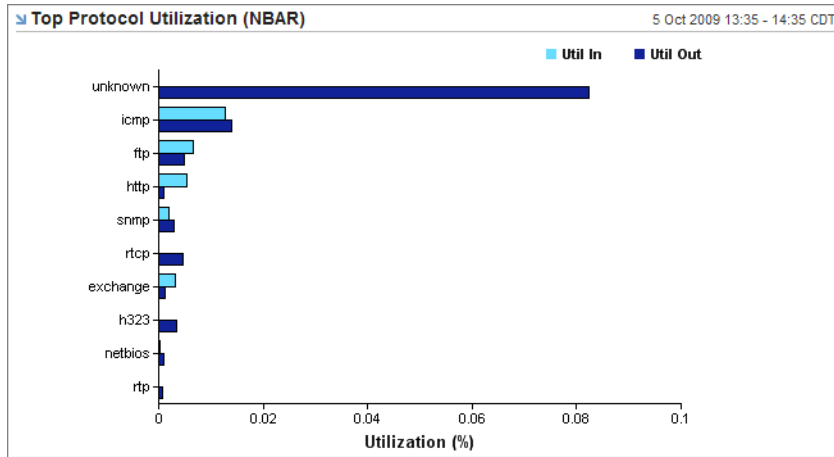


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is nbarstats, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Rate In: Transmission rate (bps) for inbound packets
 - Rate Out: Transmission rate (bps) for outbound packets
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.

- Standard NetVoyant reports: This view is included in the [Protocol Distribution Report](#).

Top Protocol Utilization (NBAR)

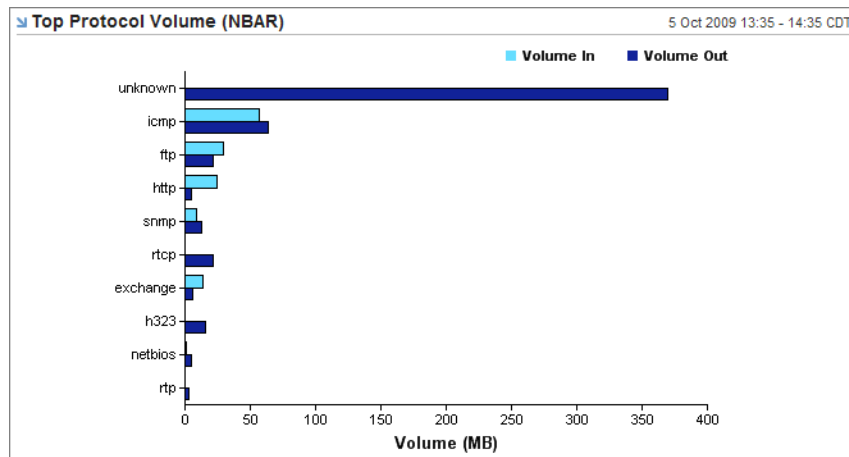
Displays the usage percentage of inbound and outbound traffic for those protocols in a reporting group with the highest combined usage during the selected period.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is nbarstats, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Util In: Usage percentage for inbound traffic
 - Util Out: Usage percentage for outbound traffic
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Protocol Distribution Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Protocols (RMON/NBAR) report.

Top Protocol Volume (NBAR)

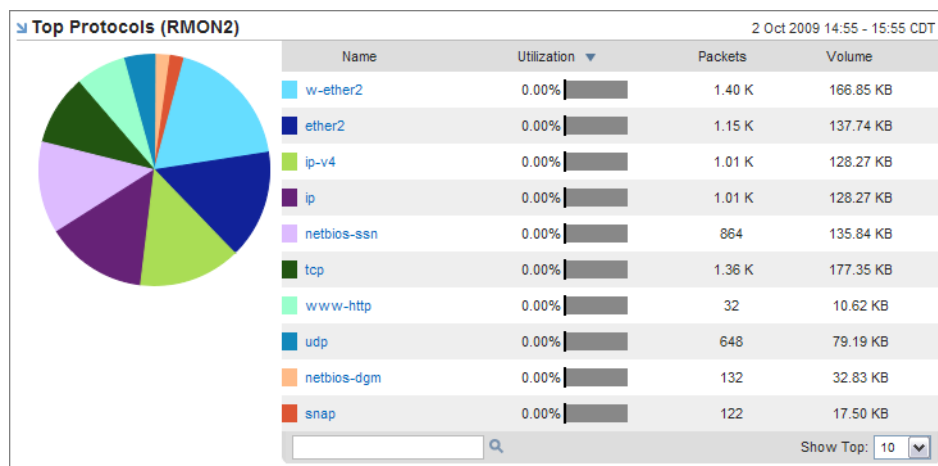
Displays the volume of inbound and outbound traffic for those protocols in a reporting group with the highest combined volume during the selected period.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is nbarstats, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Volume In: Total volume (MB) for inbound packets
 - Volume Out: Total volume (MB) for outbound packets
- Standard NetVoyant reports: This view is included in the [Protocol Distribution Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Protocols (RMON/NBAR) report.

Top Protocols (RMON2)

Displays the usage, volume, and packet statistics observed by an RMON probe in a reporting group or attached to a managed object for those protocols with the highest usage during the selected period.

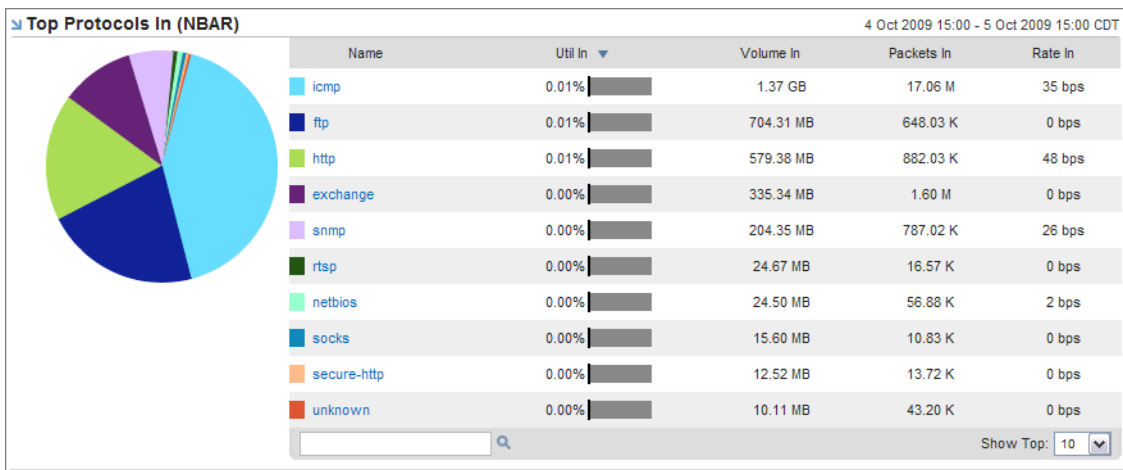


- Context: This view requires a selected reporting group, protocol group, device, or switch to be displayed.

- Data: The metric used to render this view is `protodist`, which corresponds to the Protocol Distribution (RMON2) dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization: Average usage (%) for the protocol
 - Packets: Number of packets for the protocol
 - Volume: Volume (MB) for the protocol
- Styles: This view can be displayed as a table/pie chart only.
- Standard NetVoyant reports: This view is included in the [Operations Summary Report](#), [Protocol Distribution Report](#), Protocol Group Detail report, and [Switch Capabilities Report](#).

Top Protocols In (NBAR)

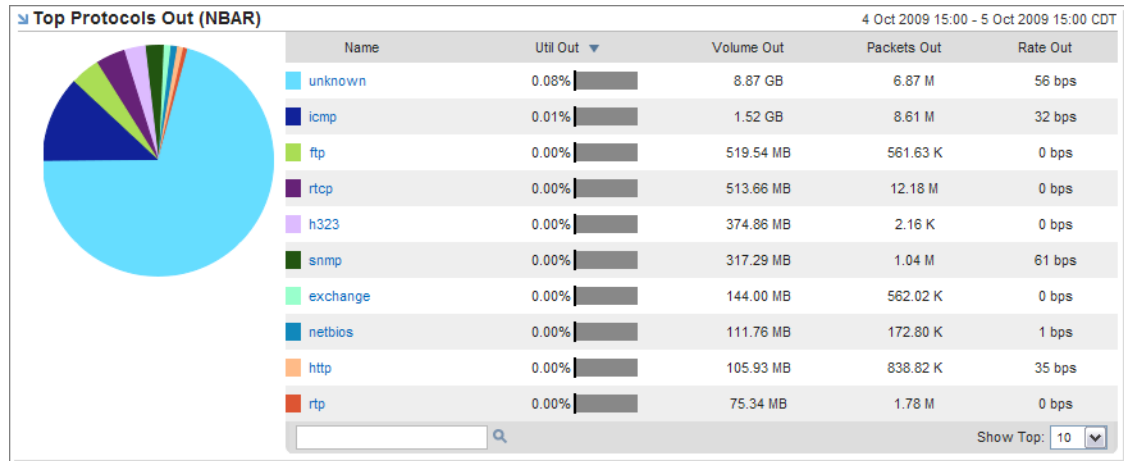
Displays the inbound usage, volume, packet, and rate statistics for the protocols in a reporting group with the highest usage during the selected period.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `nbarstats`, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Util In: Average inbound usage (%) for the protocol
 - Volume In: Inbound volume (MB) for the protocol
 - Packets In: Number of inbound packets for the protocol
 - Rate In: Transmission rate (bps) for inbound packets
- Styles: This view can be displayed as a table/pie chart only.
- Standard NetVoyant reports: This view is included in the [Protocol Distribution Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Protocols (RMON/NBAR) report.

Top Protocols Out (NBAR)

Displays the outbound usage, volume, packet, and rate statistics for the protocols in a reporting group with the highest usage during the selected period.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is nbarstats, which corresponds to the Protocol Distribution (NBAR) dataset in NetVoyant. The view includes data for the following expressions:
 - Util Out: Average outbound usage (%) for the protocol
 - Volume Out: Outbound volume (MB) for the protocol
 - Packets Out: Number of outbound packets for the protocol
 - Rate Out: Transmission rate (bps) for outbound packets
- Styles: This view can be displayed as a table/pie chart only.
- Standard NetVoyant reports: This view is included in the [Protocol Distribution Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Protocols (RMON/NBAR) report.

Top Transport Protocols (RMON2)

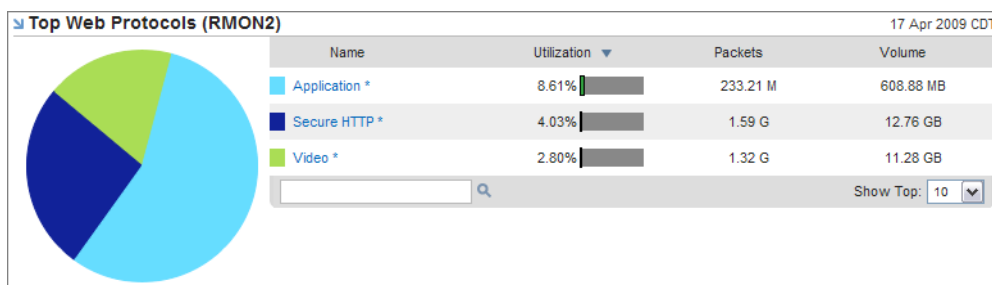
Displays the usage, volume, and packet statistics observed by an RMON probe in a reporting group or attached to a managed object for those transport protocols with the highest usage during the selected period.

- Context: This view requires a selected reporting group, device, or switch to be displayed.
- Data: The metric used to render this view is protodist, which corresponds to the Protocol Distribution (RMON2) dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization: Average usage (%) for the protocol
 - Packets: Number of packets for the protocol
 - Volume: Total volume (MB) for the protocol
- Styles: This view can be displayed as a table/pie chart only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

- Standard NetQoS Performance Center reports: This view is included in the Top Protocols (RMON/NBAR) report.

Top Web Protocols (RMON2)

Displays the usage, volume, and packet statistics observed by an RMON probe in a reporting group or attached to a managed object for those web protocols with the highest usage during the selected period.



- Context: This view requires a selected reporting group, device, or switch to be displayed.
- Data: The metric used to render this view is protodist, which corresponds to the Protocol Distribution (RMON2) dataset in NetVoyant. The view includes data for the following expressions:
 - Utilization: Average usage (%) for the protocol
 - Packets: Number of packets for the protocol
 - Volume: Volume (MB) for the protocol
- Styles: This view can be displayed as a table/pie chart only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Top Protocols (RMON/NBAR) report.

ROUTER AND SWITCH VIEWS

The following sections describe the views related to routers and switches that you can add to your report pages. Also listed are the view styles possible for each view and the standard report pages on which each view is displayed.

95th Percentile Cisco CPU Utilization Scorecard

Displays an overview scorecard for the 95th percentile CPU usage of Cisco devices across multiple groups or subgroups. You can select a goal range for the values to determine how the values in the scorecard display.

Scorecard views display monthly performance data for the previous six month or seven week period by sub-group, for the selected group. Scorecards are high-level indicators of whether or not measured resources are meeting service-level goals. These views incorporate check marks and exclamation points as visual indicators to enhance quick understanding.

95th Percentile Cisco CPU Utilization Scorecard									
Fri 27 Nov 2009 - Thu 3 Dec 2009 CST									
Group ▲	Target	Oct 18	Oct 25	Nov 1	Nov 8	Nov 15	Nov 22	Nov 29	Average
- Routers	<= 95.00	✓ 14.2	✓ 21.7	✓ 17.2	✓ 21.7	✓ 19.7	✓ 17.3	✓ 19.4	✓ 17.1
Midwest	<= 95.00	✓ 2.0	✓ 2.0	✓ 2.0	✓ 2.0	--	--	✓ 2.0	✓ 2.0
Northeast	<= 95.00	✓ 1.8	✓ 1.8	✓ 1.8	✓ 1.8	--	--	✓ 1.8	✓ 1.8
Northwest	<= 95.00	✓ 16.3	✓ 24.2	✓ 19.8	✓ 24.2	✓ 19.7	✓ 19.3	✓ 25.0	✓ 19.9
Southeast	<= 95.00	✓ 0.0	✓ 0.0	✓ 0.0	✓ 0.0	--	✓ 0.0	✓ 0.0	✓ 0.0
Southwest	<= 95.00	✓ 2.0	✓ 2.7	✓ 2.7	✓ 2.7	--	--	✓ 2.7	✓ 2.5
1 of 1									
Max Per Page: 10									

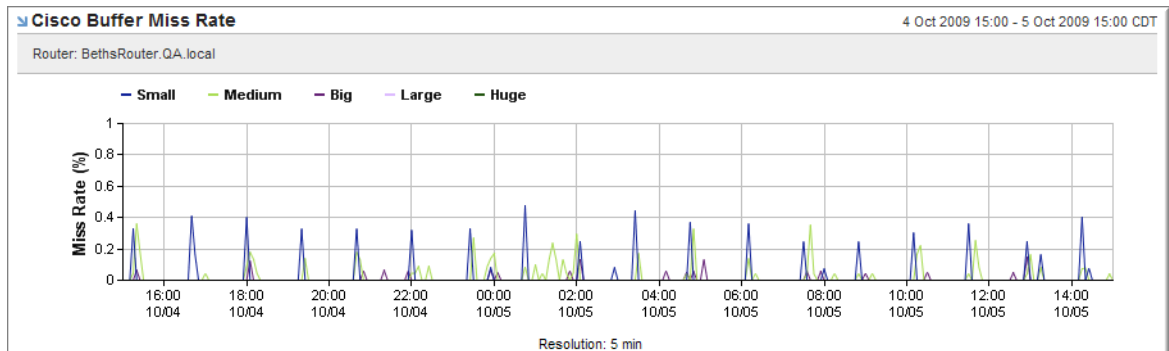
- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant.

This scorecard view uses a default target percentage of 95.0, so that sub-groups with an average availability below that target are displayed with a red exclamation point to indicate that the item falls below the target. You can modify this target value in the Custom View Wizard to meet your organization's service level goals.

- Styles: This view can be displayed as table only.
- Standard NetVoyant reports: This view is included in the [Scorecards Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Routers/Switches Overview report and the Scorecards report.

Cisco Buffer Miss Rate

Displays the average miss rate for buffers, categorized by size, on a Cisco device during the selected period.

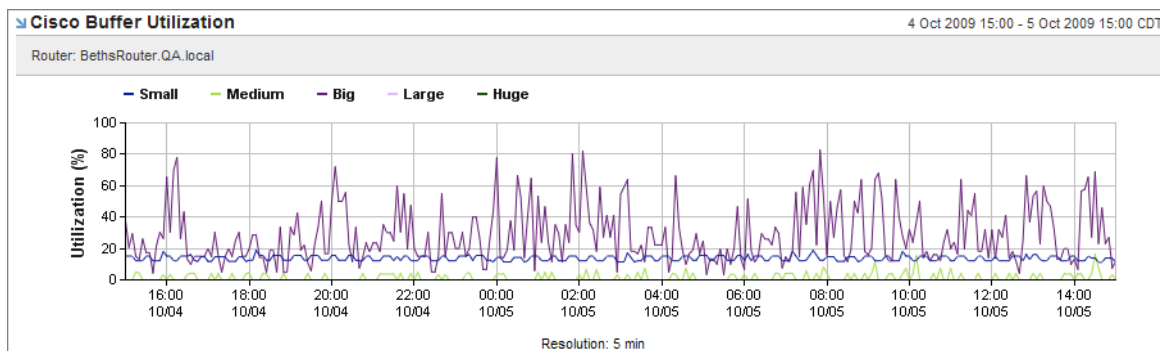


- Context: This view requires a selected device, router, or switch to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expression:
 - Small: The percentage of small buffer (104 bytes) misses to hits.
 - Medium: The percentage of middle buffer (600 bytes) misses to hits.
 - Big: The percentage of big buffer (1524 bytes) misses to hits.
 - Large: The percentage of large buffer (5024 bytes) misses to hits.
 - Huge: The percentage of huge buffer (18024 bytes) misses to hits.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.

- Standard NetVoyant reports: This view is included in the [Device Performance Report](#), [Router Performance Report](#), and [Switch Performance Report](#).

Cisco Buffer Utilization

Displays the average buffer usage, categorized by size, on a Cisco device during the selected period.

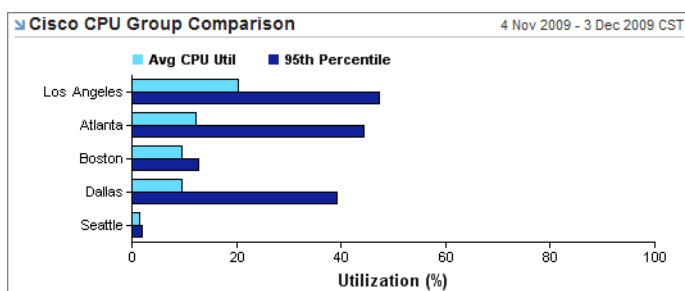


- Context: This view requires a selected device, router, or switch to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expression:
 - Small: The percentage of small buffer (104 bytes) misses to hits.
 - Medium: The percentage of middle buffer (600 bytes) misses to hits.
 - Big: The percentage of big buffer (1524 bytes) misses to hits.
 - Large: The percentage of large buffer (5024 bytes) misses to hits.
 - Huge: The percentage of huge buffer (18024 bytes) misses to hits.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Device Performance Report](#), [Router Performance Report](#), and [Switch Performance Report](#).

Cisco CPU Group Comparison

Displays the average and 95th percentile CPU usage, by sub-group, for devices in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expressions:
 - Avg CPU Util: The average CPU usage percentage
 - 95th Percentile: The average CPU usage omitting the data outside of the 95th percentile. The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Router Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Group Comparison report.

Cisco CPU Util Distribution

Displays the average CPU usage percentage range for devices in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

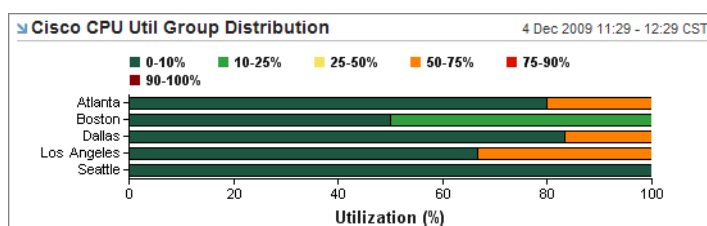
Cisco CPU Util Distribution							4 Dec 2009 11:29 - 12:29 CST
Date/Time ▲	0-10%	10-25%	25-50%	50-75%	75-90%	90-100%	
11:30	10 / 83.33%	1 / 8.33%	0 / 0%	1 / 8.33%	0 / 0%	0 / 0%	
11:35	10 / 83.33%	1 / 8.33%	0 / 0%	1 / 8.33%	0 / 0%	0 / 0%	
11:40	10 / 83.33%	1 / 8.33%	0 / 0%	1 / 8.33%	0 / 0%	0 / 0%	
11:45	10 / 83.33%	1 / 8.33%	0 / 0%	1 / 8.33%	0 / 0%	0 / 0%	
11:50	10 / 83.33%	1 / 8.33%	0 / 0%	1 / 8.33%	0 / 0%	0 / 0%	
11:55	10 / 83.33%	1 / 8.33%	0 / 0%	1 / 8.33%	0 / 0%	0 / 0%	
12:00	10 / 83.33%	1 / 8.33%	0 / 0%	1 / 8.33%	0 / 0%	0 / 0%	
12:05	10 / 83.33%	1 / 8.33%	0 / 0%	1 / 8.33%	0 / 0%	0 / 0%	
12:10	10 / 83.33%	1 / 8.33%	0 / 0%	1 / 8.33%	0 / 0%	0 / 0%	
12:15	10 / 83.33%	1 / 8.33%	0 / 0%	1 / 8.33%	0 / 0%	0 / 0%	
12:20	10 / 83.33%	1 / 8.33%	0 / 0%	1 / 8.33%	0 / 0%	0 / 0%	

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expressions:
 - 0-10%: Number and percentage of devices with usage of 10% or less.
 - 10-25%: Number and percentage of devices with usage between 10 and 25%.
 - 25-50%: Number and percentage of devices with usage between 25 and 50%.
 - 50-75%: Number and percentage of devices with usage between 50 and 75%.
 - 75-90%: Number and percentage of devices with usage between 75 and 90%.
 - 90-100%: Number and percentage of devices with usage between 90 and 100%.
- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Cisco CPU Util Group Distribution

Displays the average CPU usage percentage range, by subgroup, for devices in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

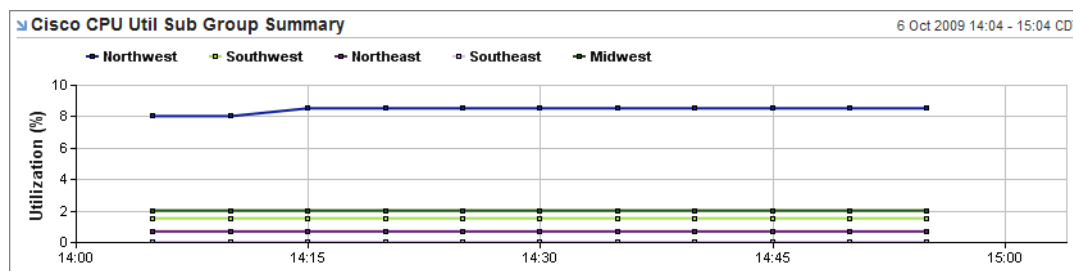


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expressions:
 - 0-10%: Percentage of devices with usage of 10% or less.
 - 10-25%: Percentage of devices with usage between 10 and 25%.
 - 25-50%: Percentage of devices with usage between 25 and 50%.
 - 50-75%: Percentage of devices with usage between 50 and 75%.
 - 75-90%: Percentage of devices with usage between 75 and 90%.
 - 90-100%: Percentage of devices with usage between 90 and 100%.
- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Cisco CPU Util Sub Group Summary

Displays the average CPU usage percentage for each subgroup for all devices in a reporting group during the selected period.

Group Summary views provide an aggregate view for the selected group broken down by sub-group to display meaningful comparisons of performance. Because reporting groups and sub-groups are typically organized to match your network organization, these views can also provide insights into how specific parts of your network compare to others.

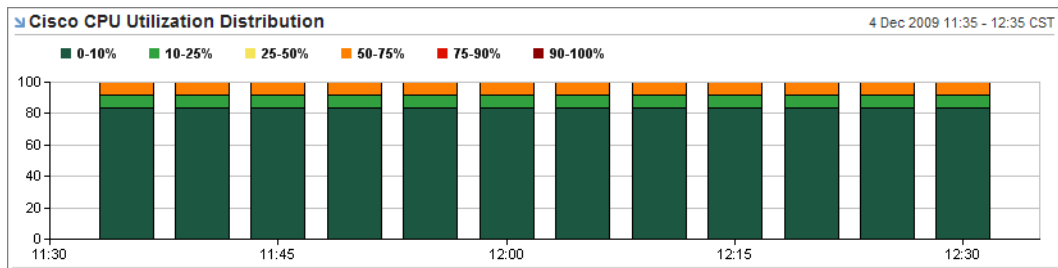


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Router Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Group Comparison report.

Cisco CPU Utilization Distribution

Displays the average CPU usage percentage range for devices in a reporting group during the selected period.

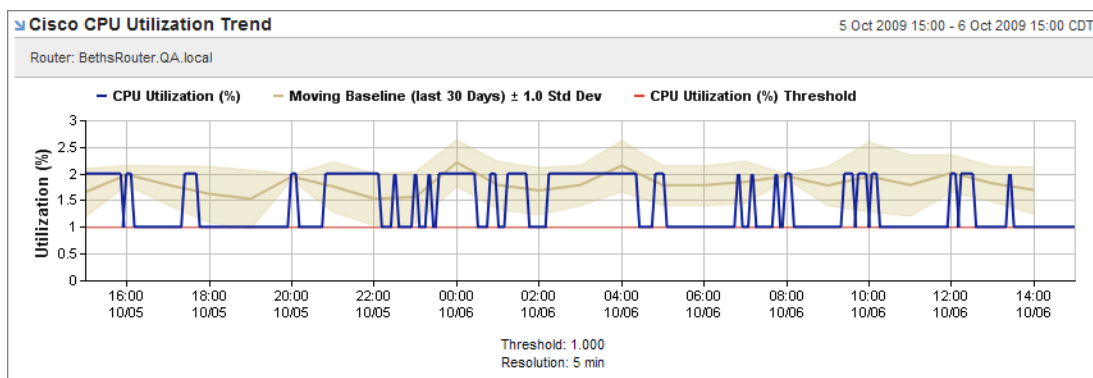
Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expressions:
 - 0-10%: Percentage of devices with a usage of 10% or less.
 - 10-25%: Percentage of devices with a usage between 10 and 25%.
 - 25-50%: Percentage of devices with a usage between 25 and 50%.
 - 50-75%: Percentage of devices with a usage between 50 and 75%.
 - 75-90%: Percentage of devices with a usage between 75 and 90%.
 - 90-100%: Percentage of devices with a usage between 90 and 100%.
- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is included in the [Router Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Summary report.

Cisco CPU Utilization Trend

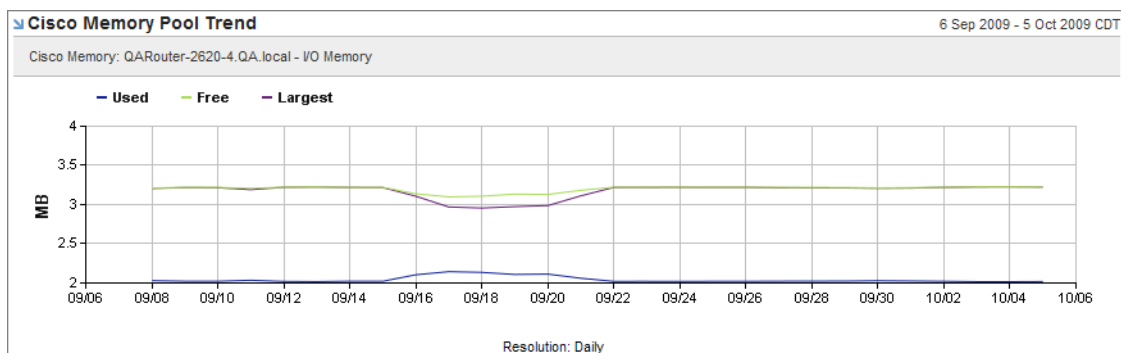
Displays the average CPU usage for a Cisco device over the selected period. This view includes a 30-day moving baseline (hourly or daily periods) or projection (weekly or greater periods).



- Context: This view requires a selected device, router, or switch to be displayed.
- Data: The metric used to render this view is `ciscoSystem`, which corresponds to the Cisco System Resources dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Device Performance Report](#), [Router Performance Report](#), and [Switch Performance Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Performance report and the Switch Performance report.

Cisco Memory Pool Trend

Displays the used memory, free memory, and the size of the largest contiguous block of memory on a Cisco memory pool during a selected period.

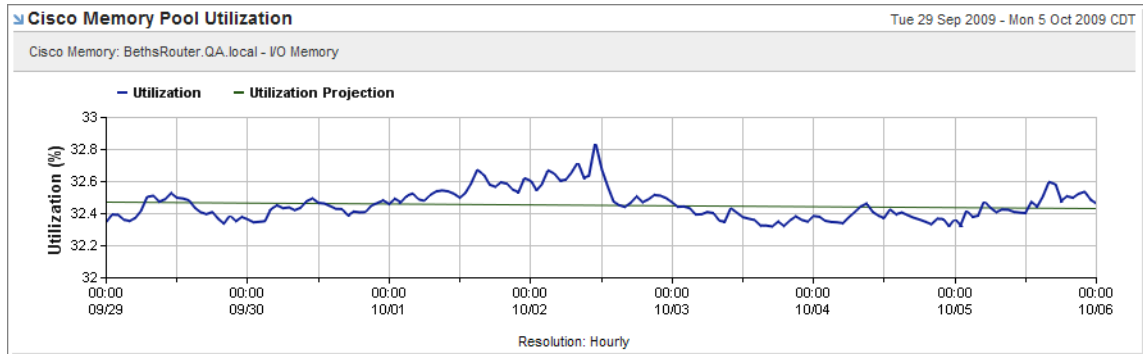


- Context: This view requires a Cisco memory pool to be displayed.
- Data: The metric used to render this view is `ciscoMemPool`, which corresponds to the Cisco Memory Pool dataset in NetVoyant. The view includes data for the following expressions:
 - Used: The number of MB from the memory pool that are in use by applications on the device
 - Free: The number of MB from the memory pool that are unused
 - Largest: The number of MB for the largest number of contiguous bytes from the memory pool that are unused
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.

- Standard NetVoyant reports: This view is included in the [Cisco Memory Pool Performance Report](#).

Cisco Memory Pool Utilization

Displays the average usage for a Cisco memory pool over the selected period. This view includes a 30-day moving baseline (hourly or daily periods) or projection (weekly or greater periods).



- Context: This view requires a selected Cisco memory pool to be displayed.
- Data: The metric used to render this view is ciscoMemPool, which corresponds to the Cisco Memory Pool dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Cisco Memory Pool Performance Report](#).

Cisco Memory Util Distribution

Displays the average memory usage percentage range for memory pools in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.

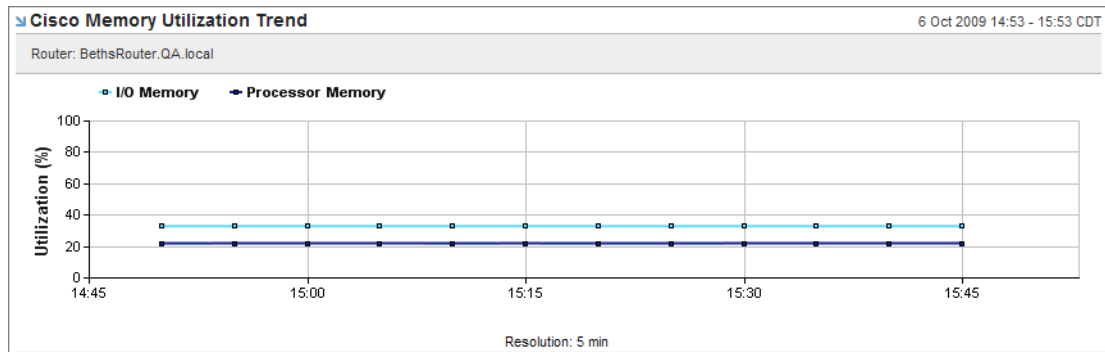
Cisco Memory Util Distribution						
Tue 29 Sep 2009 - Mon 5 Oct 2009 CDT						
Date/Time ▲	0-10%	10-25%	25-50%	50-75%	75-90%	90-100%
Tue 29 September	6 / 25.00%	13 / 54.17%	5 / 20.83%	0 / 0%	0 / 0%	0 / 0%
Wed 30 September	6 / 25.00%	13 / 54.17%	5 / 20.83%	0 / 0%	0 / 0%	0 / 0%
Thu 01 October	6 / 25.00%	13 / 54.17%	5 / 20.83%	0 / 0%	0 / 0%	0 / 0%
Fri 02 October	6 / 25.00%	13 / 54.17%	5 / 20.83%	0 / 0%	0 / 0%	0 / 0%
Sat 03 October	6 / 25.00%	13 / 54.17%	5 / 20.83%	0 / 0%	0 / 0%	0 / 0%
Sun 04 October	6 / 25.00%	13 / 54.17%	5 / 20.83%	0 / 0%	0 / 0%	0 / 0%
Mon 05 October	6 / 25.00%	13 / 54.17%	5 / 20.83%	0 / 0%	0 / 0%	0 / 0%

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoMemPool, which corresponds to the Cisco Memory Pool dataset in NetVoyant. The view includes data for the following expressions:
 - 0-10%: Number and percentage of memory pools with usage of 10% or less.
 - 10-25%: Number and percentage of memory pools with usage between 10 and 25%.

- 25-50%: Number and percentage of memory pools with usage between 25 and 50%.
- 50-75%: Number and percentage of memory pools with usage between 50 and 75%.
- 75-90%: Number and percentage of memory pools with usage between 75 and 90%.
- 90-100%: Number and percentage of memory pools with usage between 90 and 100%.
- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is included in the [Router Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Summary report.

Cisco Memory Utilization Trend

Displays the average memory usage for memory pools on a Cisco device during the selected period.

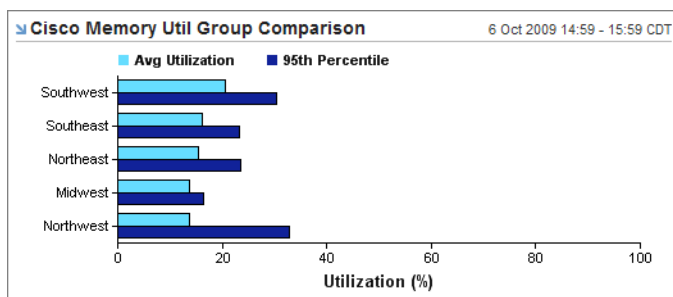


- Context: This view requires a selected device or router to be displayed.
- Data: The metric used to render this view is ciscoMemPool, which corresponds to the Cisco Memory Pool dataset in NetVoyant. This view cannot be edited in the Custom View Wizard.
- Styles: This view can be displayed as a line chart only.
- Standard NetVoyant reports: This view is included in the [Device Performance Report](#) and [Switch Performance Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Performance report and the Switch Performance report.

Cisco Memory Util Group Comparison

Displays the average and 95th percentile usage, by sub-group, for memory pools in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

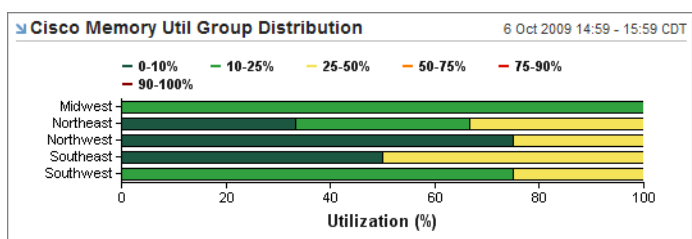


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `ciscoMemPool`, which corresponds to the Cisco Memory Pool dataset in NetVoyant. The view includes data for the following expressions:
 - Avg Utilization: The average usage percentage
 - 95th Percentile: The average usage omitting the data outside of the 95th percentile. The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Router Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Group Comparison report.

Cisco Memory Util Group Distribution

Displays the average usage percentage range, by subgroup, for memory pools in a reporting group during the selected period.

Distribution views display aggregate values for an expression broken down according to distribution ranges that let you determine how performance compares to predefined service levels. You can add, edit, or remove the ranges for a distribution table or graph. This view type can be used to compare distribution ranges across multiple groups or sub-groups.



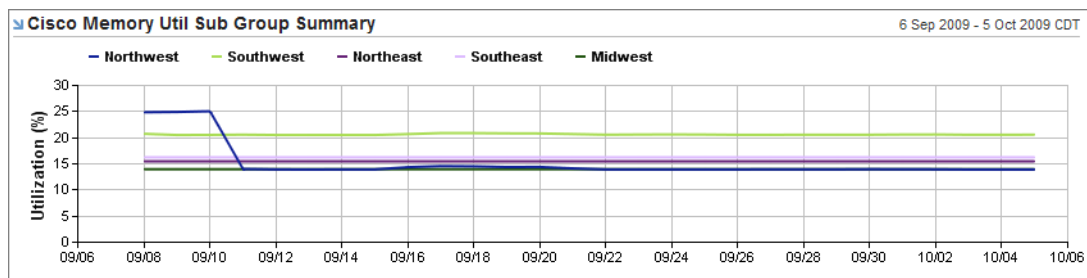
- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `ciscoMemPool`, which corresponds to the Cisco Memory Pool dataset in NetVoyant. The view includes data for the following expressions:
 - 0-10%: Percentage of memory pools with a usage of 10% or less.
 - 10-25%: Percentage of memory pools with a usage between 10 and 25%.
 - 25-50%: Percentage of memory pools with a usage between 25 and 50%.
 - 50-75%: Percentage of memory pools with a usage between 50 and 75%.
 - 75-90%: Percentage of memory pools with a usage between 75 and 90%.

- 90-100%: Percentage of memory pools with a usage between 90 and 100%.
- Styles: This view can be displayed as a stacked bar chart or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Cisco Memory Util Sub Group Summary

Displays the average memory pool usage percentage for each subgroup for a reporting group during the selected period.

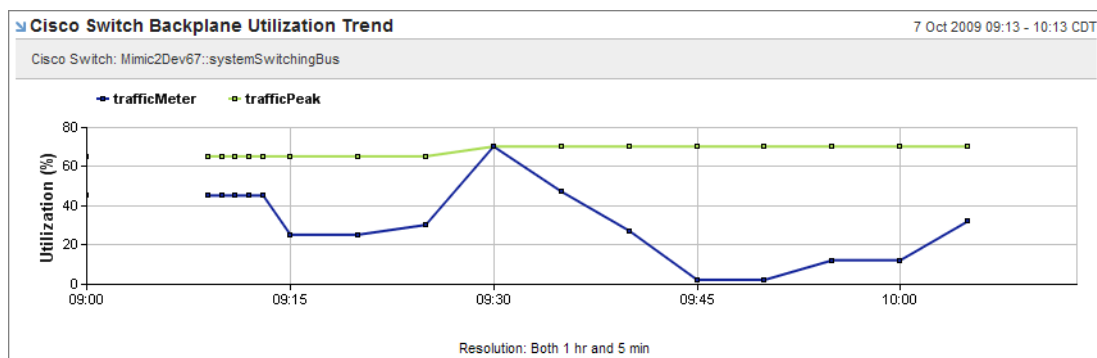
Group Summary views provide an aggregate view for the selected group broken down by sub-group to display meaningful comparisons of performance. Because reporting groups and sub-groups are typically organized to match your network organization, these views can also provide insights into how specific parts of your network compare to others.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoMemPool, which corresponds to the Cisco Memory Pool dataset in NetVoyant.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [Router Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Group Comparison report.

Cisco Switch Backplane Utilization Trend

Displays the traffic meter and traffic peak value for a switch backplane during the selected period.



- Context: This view requires a selected Cisco switch with a backplane to be displayed.

-
- **Data:** The metric used to render this view is `ciscoSwitch`, which corresponds to the Cisco Backplane Traffic dataset in NetVoyant. The view includes data for the following expressions:
 - `trafficMeter`: The percentage of bandwidth usage for the previous polling interval
 - `trafficPeak`: The peak traffic meter value since the system started
 - **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
 - **Standard NetVoyant reports:** This view is included in the [Device Performance Report](#), [Switch Performance Report](#), and [Cisco Switch Performance Report](#).

Closest to Threshold - Cisco CPU Utilization

Displays those Cisco devices in a reporting group that have average CPU usage values closest to the threshold. This view also displays the projected number of days until the rate for each interface crosses the usage threshold.

Closest to Threshold views calculate the trend for an expression. When that calculation projects that the value for the expression will reach or exceed threshold within one year, the data is represented in the view. For example, when latency is on an incline and thus the baseline is also on an incline, a projection calculation predicts when the device will meet or exceed the threshold.

- **Context:** This view requires a selected reporting group to be displayed.
- **Data:** The metric used to render this view is `ciscoSystem`, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expressions:
 - **Metric:** Cisco CPU usage
 - **Average:** Average usage as a percentage
 - **Threshold:** The threshold for the `avgBusy5` expression in NetVoyant
 - **Days to Threshold:** The projected number of days until the value for the expression exceeds the threshold
- **Styles:** This view can be displayed as a table only.
- **Standard NetVoyant reports:** This view is included in the [Top Closest to Threshold Report](#).
- **Standard NetQoS Performance Center reports:** This view is included in the Top Closest to Threshold report and the Alerts and Violations report.

Closest to Threshold - Cisco Memory Utilization

Displays those Cisco devices in a reporting group that have average memory pool usage values closest to the threshold. This view also displays the projected number of days until the rate for each interface crosses the usage threshold.

Closest to Threshold views calculate the trend for an expression. When that calculation projects that the value for the expression will reach or exceed threshold within one year, the data is represented in the view. For example, when latency is on an incline and thus the baseline is also on an incline, a projection calculation predicts when the device will meet or exceed the threshold.

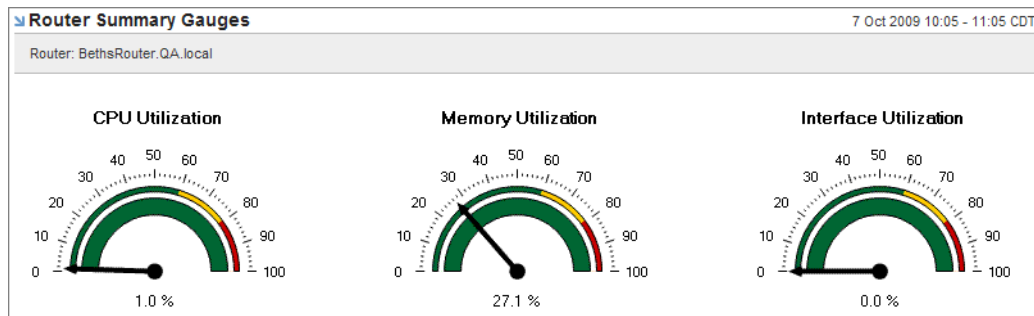
- **Context:** This view requires a selected reporting group to be displayed.
- **Data:** The metric used to render this view is `ciscoMemPool`, which corresponds to the Cisco Memory Pool dataset in NetVoyant. The view includes data for the following expressions:

- Metric: Cisco Memory Utilization
- Average: Average value as a percentage
- Threshold: The threshold for the ciscoMemPool expression in NetVoyant
- Days to Threshold: The projected number of days until the value for the expression exceeds the threshold
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Closest to Threshold Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Closest to Threshold report.

Router Summary Gauges

Displays the CPU usage, memory usage, and interface usage compared to a baseline for a router during the selected period.

Gauge views are designed to provide a high-level indication of desirable and undesirable numbers according to baselines and thresholds.



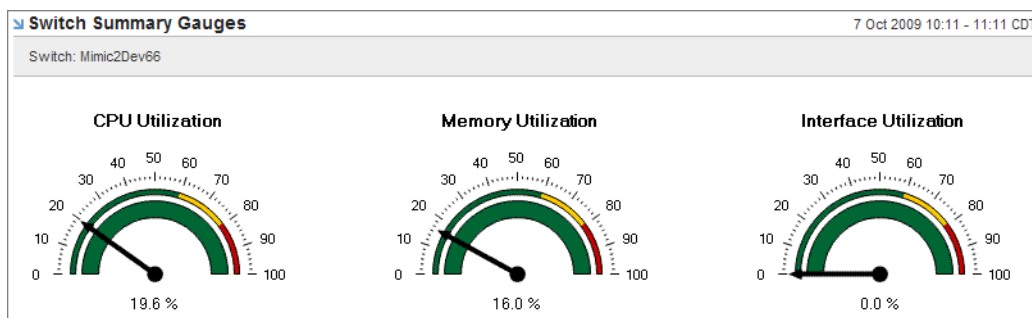
Note: This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.

- Context: This view requires a selected device or router to be displayed.
- Styles: This view can be displayed as gauge chart only.
- Standard NetVoyant reports: This view is included in the [Router Performance Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Performance report.

Switch Summary Gauges

Displays the CPU usage, memory usage, and interface usage compared to a baseline for a switch during the selected period.

Gauge views are designed to provide a high-level indication of desirable and undesirable numbers according to baselines and thresholds.



Note: This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.

- Context: This view requires a selected device, router, or switch to be displayed.
- Styles: This view can be displayed as gauge chart only.
- Standard NetVoyant reports: This view is included in the [Device Performance Report](#) and [Switch Performance Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Switch Performance report.

Top Changes - Cisco CPU Utilization

Displays average CPU usage for those Cisco devices in a reporting group that have the highest change in usage over the past month. The view also shows the current month and previous month's 95th percentile usage. The amount of change in usage is calculated from the change in the 95th percentile of data.

Note: The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.

Name	Metric	Current Month Average	Current Month 95th %	Previous Month 95th %	% Change of 95th %
mnrouter1.redpt.com	CPU Utilization	10.69%	19.50%	19.25%	1.3
QARouter-2620-4.QA.local	CPU Utilization	13.75%	26.56%	26.67%	-0.4
Mimic2Dev594	CPU Utilization	4.00%	4.00%	4.00%	0.0

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: CPU Utilization (avgBusy5)
 - Current Month Average: Average value for the metric over the current reporting month
 - Current Month 95th %: Average value for the metric over the current reporting month using the 95th percentile data
 - Previous Month 95th %: Average value for the metric for the month previous to the current reporting month using the 95th percentile data

- % Change of 95th %: Percentage change between the current month's 95th percentile value and the previous month's 95th percentile value
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Monthly Changes Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Monthly Changes report and Routers/Switches Overview report.

Top Changes - Cisco Memory Utilization

Displays average memory pool usage for those Cisco devices in a reporting group that have the highest change in usage over the past month. The view also shows the current month and previous month's 95th percentile usage. The amount of change in usage is calculated from the change in the 95th percentile of data.

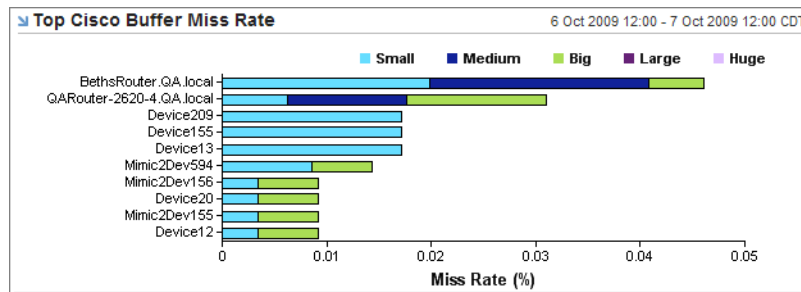
Note: The 95th percentile is the value such that 95 percent of data for the rollup period is less than this value. This removes spikes in usage from the data.

Name	Metric	Current Month Average	Current Month 95th %	Previous Month 95th %	% Change of 95th %
mnrouter1.redpt.com::Processor Memory	Memory Pool Utilization	38.63%	39.48%	39.26%	0.547
mnrouter1.redpt.com::I/O Memory	Memory Pool Utilization	6.55%	7.19%	7.16%	0.453
BethsRouter.QA.local::I/O Memory	Memory Pool Utilization	32.47%	32.80%	32.83%	-0.070
BethsRouter.QA.local::Processor Memory	Memory Pool Utilization	21.68%	21.77%	21.77%	0.023

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoMemPool, which corresponds to the Cisco Memory Pool dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Memory Utilization (poolUtil)
 - Current Month Average: Average value for the metric over the current reporting month
 - Current Month 95th %: Average value for the metric over the current reporting month using the 95th percentile data
 - Previous Month 95th %: Average value for the metric for the month previous to the current reporting month using the 95th percentile data
 - % Change of 95th %: Percentage change between the current month's 95th percentile value and the previous month's 95th percentile value
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Monthly Changes Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Monthly Changes report and Routers/Switches Overview report.

Top Cisco Buffer Miss Rate

Displays average miss rate for buffers, categorized by size, for those Cisco system resources in a reporting group that have the highest change in total miss rate over the selected period.



- Context: This view requires a selected reporting group, device, router, or switch to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expression:
 - Small: The percentage of small buffer (104 bytes) misses to hits.
 - Medium: The percentage of middle buffer (600 bytes) misses to hits.
 - Big: The percentage of big buffer (1524 bytes) misses to hits.
 - Large: The percentage of large buffer (5024 bytes) misses to hits.
 - Huge: The percentage of huge buffer (18024 bytes) misses to hits.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Cisco Buffer Miss Rate (with CPU Utilization)

Displays average CPU usage and average miss rate for buffers, categorized by size, for those Cisco system resources in a reporting group that have the highest change in total miss rate over the selected period.

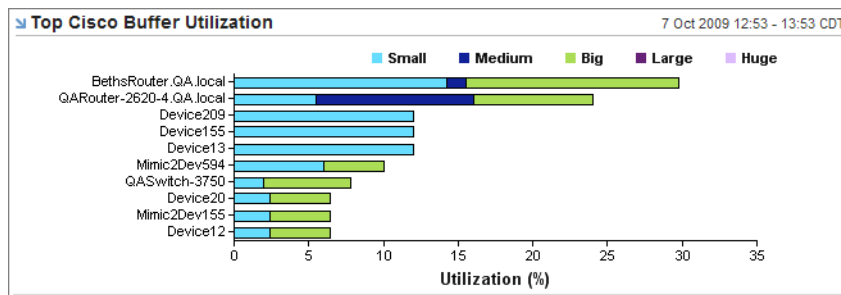
Top Cisco Buffer Miss Rate						
7 Oct 2009 15:06 - 16:06 CDT						
Name	CPU Util	Small	Medium	Big	Large	Huge
Mimic2Dev66	55.00%	0.00%	0.00%	0.00%	0.00%	0.00%
QARouter-2620-4.QA.local	9.17%	0.00%	0.00%	0.00%	0.00%	0.00%
QASwitch-3750	7.92%	0.00%	0.00%	3.03%	0.00%	0.00%
Mimic2Dev594	4.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Mimic2Dev156	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Device20	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Mimic2Dev155	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Device12	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Mimic2Dev100	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Device11	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%

- Context: This view requires a selected reporting group, device, router, or switch to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expression:

- Small: The percentage of small buffer (104 bytes) misses to hits.
- Medium: The percentage of middle buffer (600 bytes) misses to hits.
- Big: The percentage of big buffer (1524 bytes) misses to hits.
- Large: The percentage of large buffer (5024 bytes) misses to hits.
- Huge: The percentage of huge buffer (18024 bytes) misses to hits.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Cisco Buffer Utilization

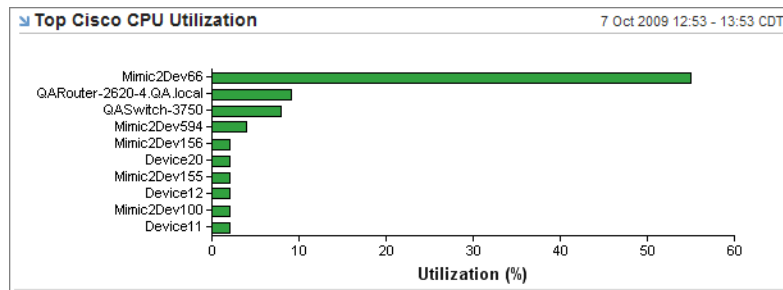
Displays average buffer usage, categorized by buffer size, for those Cisco system resources in a reporting group that have the highest change in total miss rate over the selected period.



- Context: This view requires a selected reporting group, device, router, or switch to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expressions:
 - Small: The average usage of small buffers (104 bytes)
 - Medium: The average usage of middle buffers (600 bytes)
 - Big: The average usage of big buffers (1524 bytes)
 - Large: The average usage of large buffers (5024 bytes)
 - Huge: The average usage of huge buffers (18024 bytes)
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Cisco CPU Utilization

Displays average CPU usage for those Cisco devices in a reporting group or managed object that have the highest change in total usage over the selected period.



- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Top Issues report.

Top Cisco CPU/Buffer Utilization

Displays average CPU usage and average buffer usage, categorized by buffer size, for those Cisco devices in a reporting group or managed object that have the highest total usage over the selected period.

A table titled 'Top Cisco CPU/Buffer Utilization' for the period '7 Oct 2009 12:53 - 13:53 CDT'. The table has columns: Name, CPU Util, Small, Medium, Big, Large, and Huge. The data is as follows:

Name	CPU Util	Small	Medium	Big	Large	Huge
Mimic2Dev66	55.00%	0.59%	0.20%	0.40%	0.00%	0.00%
QARouter-2620-4.QA.local	9.17%	5.50%	10.52%	8.00%	0.00%	0.00%
QASwitch-3750	8.00%	2.00%	0.00%	5.79%	0.00%	0.00%
Mimic2Dev594	4.00%	6.00%	0.00%	4.00%	0.00%	0.00%
Mimic2Dev156	2.00%	2.40%	0.00%	4.00%	0.00%	0.00%
Device20	2.00%	2.40%	0.00%	4.00%	0.00%	0.00%
Mimic2Dev155	2.00%	2.40%	0.00%	4.00%	0.00%	0.00%
Device12	2.00%	2.40%	0.00%	4.00%	0.00%	0.00%
Mimic2Dev100	2.00%	2.40%	0.00%	4.00%	0.00%	0.00%
Device11	2.00%	2.40%	0.00%	4.00%	0.00%	0.00%

- Context: This view requires a selected reporting group, device, router, or switch to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expression:
 - CPU Util: Average CPU usage for the Cisco device/resource
 - Small: The average usage of small buffers (104 bytes)
 - Medium: The average usage of middle buffers (600 bytes)

- Big: The average usage of big buffers (1524 bytes)
- Large: The average usage of large buffers (5024 bytes)
- Huge: The average usage of huge buffers (18024 bytes)
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Operations Summary Report](#), [Router Capabilities Report](#), [Device Capabilities Report](#), and [Switch Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Enterprise Summary report.

Top Cisco I/O Memory

Displays average I/O memory pool usage, and the used memory, free memory, and the size of the largest contiguous block of memory for those Cisco devices in a reporting group or managed object that have the highest total I/O memory usage over the selected period.

Top Cisco I/O Memory 7 Oct 2009 15:13 - 16:13 CDT

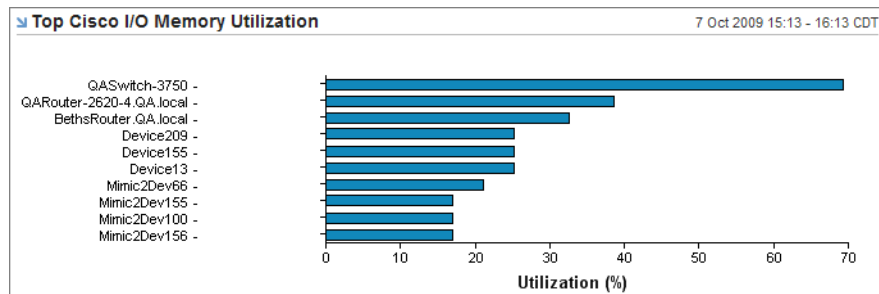
Name	Type	Util ▼	Used	Free	Largest
QASwitch-3750 - I/O Memory	I/O Memory	69.25%	8.71 MB	3.87 MB	3.36 MB
QARouter-2620-4.QA.local - I/O Memory	I/O Memory	38.57%	2.02 MB	3.22 MB	3.22 MB
BethsRouter.QA.local - I/O Memory	I/O Memory	32.52%	5.46 MB	11.32 MB	11.23 MB
Device209 - I/O Memory	I/O Memory	25.21%	2.11 MB	6.27 MB	6.27 MB
Device155 - I/O Memory	I/O Memory	25.21%	2.11 MB	6.27 MB	6.27 MB
Device13 - I/O Memory	I/O Memory	25.21%	2.11 MB	6.27 MB	6.27 MB
Mimic2Dev66 - I/O Memory	I/O Memory	21.08%	7.07 MB	26.48 MB	26.48 MB
Mimic2Dev155 - I/O Memory	I/O Memory	17.04%	2.14 MB	10.44 MB	10.42 MB
Mimic2Dev100 - I/O Memory	I/O Memory	17.04%	2.14 MB	10.44 MB	10.42 MB
Mimic2Dev156 - I/O Memory	I/O Memory	17.04%	2.14 MB	10.44 MB	10.42 MB

how Top: 10 ▼

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is ciscoMemPool, which corresponds to the Cisco Memory Pool dataset in NetVoyant. The view includes data for the following expressions:
 - Util: Average I/O memory usage for the Cisco device/resource
 - Used: The number of MB from the memory pool that are in use by applications on the device
 - Free: The number of MB from the memory pool that are unused
 - Largest: The number of MB for the largest number of contiguous bytes from the memory pool that are unused
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Top Monthly Changes report and Routers/Switches Overview report.

Top Cisco I/O Memory Utilization

Displays average I/O memory pool usage for those Cisco devices in a reporting group or managed object that have the highest total usage over the selected period.



- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is ciscoMemPool, which corresponds to the Cisco Memory Pool dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Cisco Memory

Displays average memory usage, and the used memory, free memory, and the size of the largest contiguous block of memory for those Cisco devices in a reporting group or managed object that have the highest total memory pool usage over the selected period.

Top Cisco Memory						7 Oct 2009 15:13 - 16:13 CDT
Name	Type	Util ▼	Used	Free	Largest	
QASwitch-3750 - I/O Memory	I/O Memory	69.25%	8.71 MB	3.87 MB	3.36 MB	
Mimic2Dev67 - NVRAM Memory	NVRAM Memory	54.90%	287.84 KB	236.44 KB	236.44 KB	
QASwitch-3750 - Processor Memory	Processor Memory	43.54%	35.67 MB	46.26 MB	45.82 MB	
Mimic2Dev67 - FLASH Memory	FLASH Memory	41.63%	13.97 MB	19.58 MB	19.58 MB	
QARouter-2620-4.QA.local - I/O Memory	I/O Memory	38.57%	2.02 MB	3.22 MB	3.22 MB	
BethsRouter.QA.local - I/O Memory	I/O Memory	32.52%	5.46 MB	11.32 MB	11.23 MB	
Mimic2Dev67 - DRAM Memory	DRAM Memory	28.64%	76.83 MB	191.47 MB	140.32 MB	
Device209 - I/O Memory	I/O Memory	25.21%	2.11 MB	6.27 MB	6.27 MB	
Device155 - I/O Memory	I/O Memory	25.21%	2.11 MB	6.27 MB	6.27 MB	
Device13 - I/O Memory	I/O Memory	25.21%	2.11 MB	6.27 MB	6.27 MB	
<input type="text"/>						Sw Top: 10 ▼











- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is ciscoMemPool, which corresponds to the Cisco Memory Pool dataset in NetVoyant. The view includes data for the following expressions:
 - Util: Average memory usage for the Cisco device or resource type
 - Used: The number of MB from the memory pool that are in use by applications on the device
 - Free: The number of MB from the memory pool that are unused


- Largest: The number of MB for the largest number of contiguous bytes from the memory pool that are unused
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Operations Summary Report](#), [Router Capabilities Report](#), [Device Capabilities Report](#), and [Switch Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Enterprise Summary report.

Top Cisco Processor Memory

Displays average processor memory usage, and the used memory, free memory, and the size of the largest contiguous block of memory for those Cisco devices in a reporting group or managed object that have the highest total usage over the selected period.

Top Cisco Processor Memory 8 Oct 2009 08:42 - 09:42 CDT

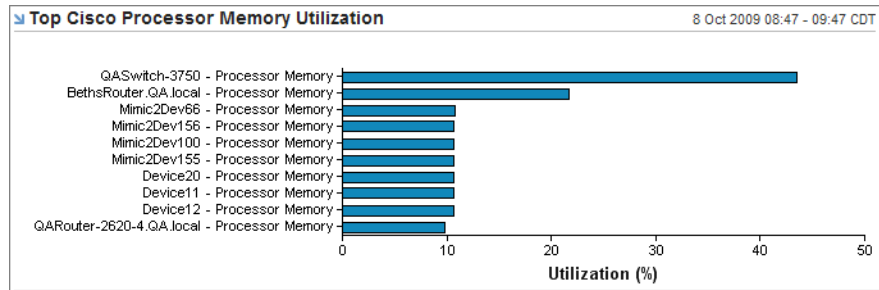
Name	Util ▼	Used	Free	Largest
QASwitch-3750 - Processor Memory	43.54% 	35.67 MB	46.26 MB	45.82 MB
BethsRouter.QA.local - Processor Memory	21.67% 	30.21 MB	109.19 MB	101.78 MB
Mimic2Dev66 - Processor Memory	10.84% 	19.67 MB	161.84 MB	161.80 MB
Mimic2Dev156 - Processor Memory	10.65% 	7.32 MB	61.43 MB	61.30 MB
Mimic2Dev100 - Processor Memory	10.65% 	7.32 MB	61.43 MB	61.30 MB
Mimic2Dev155 - Processor Memory	10.65% 	7.32 MB	61.43 MB	61.30 MB
Device20 - Processor Memory	10.65% 	7.32 MB	61.43 MB	61.30 MB
Device11 - Processor Memory	10.65% 	7.32 MB	61.43 MB	61.30 MB
Device12 - Processor Memory	10.65% 	7.32 MB	61.43 MB	61.30 MB
QARouter-2620-4.QA.local - Processor Memory	9.76% 	4.10 MB	37.93 MB	37.51 MB

 Show Top: 10 ▼

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is ciscoMemPool, which corresponds to the Cisco Memory Pool dataset in NetVoyant. The view includes data for the following expressions:
 - Util: Average processor memory usage for the Cisco device or resource type
 - Used: The number of MB from the processor memory pool that are in use by applications on the device
 - Free: The number of MB from the processor memory pool that are unused
 - Largest: The number of MB for the largest number of contiguous bytes from the processor memory pool that are unused
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Routers/Switches Overview report.

Top Cisco Processor Memory Utilization

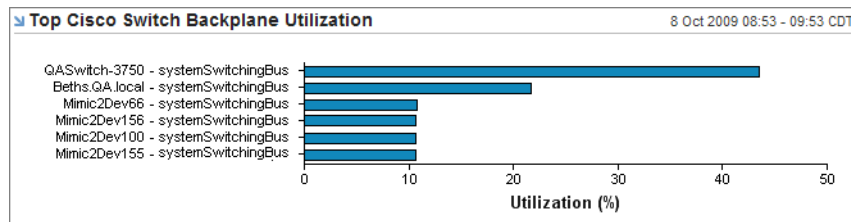
Displays average processor memory usage for those Cisco devices in a reporting group or managed object that have the highest total memory usage over the selected period.



- Context: This view requires a selected device or router to be displayed.
- Data: The metric used to render this view is ciscoMemPool, which corresponds to the Cisco Memory Pool dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Top Issues report.

Top Cisco Switch Backplane Utilization

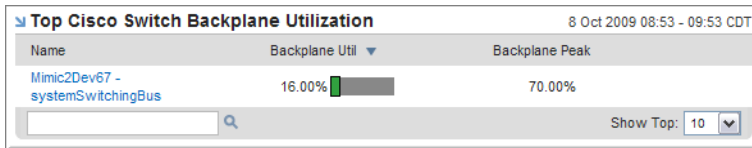
Displays average backplane usage for those Cisco switch devices in a reporting group or managed object that have the highest total backplane usage over the selected period.



- Context: This view requires a selected reporting group, router, or switch to be displayed.
- Data: The metric used to render this view is ciscoSwitch, which corresponds to the Cisco Backplane Traffic dataset in NetVoyant. The view includes data for the following expression:
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Cisco Switch Backplane Utilization (with Peak)

Displays average backplane usage and the backplane usage peak value for those Cisco switch devices in a reporting group or managed object that have the highest total backplane usage over the selected period.



- Context: This view requires a selected reporting group, router, or switch to be displayed.
- Data: The metric used to render this view is ciscoSwitch, which corresponds to the Cisco Backplane Traffic dataset in NetVoyant. The view includes data for the following expressions:
 - Backplane Util: Average backplane usage for the Cisco switch device
 - BackPlane Peak: Peak backplane usage value for the Cisco switch device
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Operations Summary Report](#), [Router Capabilities Report](#), and [Switch Capabilities Report](#).

Top Deviation From Norm - Cisco CPU Util

Displays the average CPU usage for those Cisco devices in a reporting group that have the highest deviation from the 30-day rolling baseline value for Cisco CPU usage. This view provides insight into areas experiencing rapid change.

Top Deviation from Normal views compare actual values (values during the selected period) to a calculated “normal” value and display those values that have deviated the most from that “normal” value. The “normal” values are calculated as averages using the past 30 days of baselines (generated for expressions as configured in the NetVoyant console). When you select a different period for a report, the “normal” is calculated differently. However, all are averages based on the hourly rollup values.

Name	Metric	Normal	Actual	Deviation (%)
BethsRouter.QA.local	CPU Utilization	1.86%	1.54%	-17.4
mnrouter1.redpt.com	CPU Utilization	12.08%	10.69%	-11.6
QARouter-2620-4.QA.local	CPU Utilization	14.70%	13.62%	-7.3
Mimic2Dev156	CPU Utilization	7.86%	7.02%	-10.6
Mimic2Dev594	CPU Utilization	6.82%	6.89%	1.1
Device20	CPU Utilization	9.85%	9.81%	-0.4
Mimic2Dev155	CPU Utilization	7.04%	7.02%	-0.2
Device12	CPU Utilization	32.73%	32.69%	-0.1
Mimic2Dev100	CPU Utilization	38.89%	38.91%	0.1
Device11	CPU Utilization	25.21%	25.21%	0.0

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Average Cisco CPU Utilization (avgBusy5)
 - Normal: Normal usage calculated from a 30-day rolling baseline
 - Actual: Average usage percentage during the selected period
 - Deviation (%): Actual usage calculated as a percentage above or below the normal value
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Deviation from Normal Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Deviation from Normal report.

Top Deviation From Norm - Cisco Memory Util

Displays the average memory pool usage for those Cisco devices in a reporting group that have the highest deviation from the 30-day rolling baseline value for Cisco memory pool usage. This view provides insight into areas experiencing rapid change.

Top Deviation from Normal views compare actual values (values during the selected period) to a calculated “normal” value and display those values that have deviated the most from that “normal” value. The “normal” values are calculated as averages using the past 30 days of baselines (generated for expressions as configured in the NetVoyant console). When you select a different period for a report, the “normal” is calculated differently. However, all are averages based on the hourly rollup values.











Name	Metric	Normal	Actual	Deviation (%)
Mimic2Dev155 - Processor Memory	Memory Pool Utilization	14.34%	10.65%	-25.8
mnrouter1.redpt.com - Processor Memory	Memory Pool Utilization	62.35%	75.24%	20.7
BethsRouter.QA.local - Processor Memory	Memory Pool Utilization	19.48%	21.61%	10.9
Device209 - Processor Memory	Memory Pool Utilization	7.86%	7.02%	-10.6
mnrouter1.redpt.com - I/O Memory	Memory Pool Utilization	6.82%	6.89%	1.1
QARouter-2620-4.QA.local - Processor Memory	Memory Pool Utilization	9.85%	9.81%	-0.4
Device25 - Processor Memory	Memory Pool Utilization	7.04%	7.02%	-0.2
BethsRouter.QA.local - I/O Memory	Memory Pool Utilization	32.73%	32.69%	-0.1
QARouter-2620-4.QA.local - I/O Memory	Memory Pool Utilization	38.89%	38.91%	0.1
Device155 - I/O Memory	Memory Pool Utilization	25.21%	25.21%	0.0


- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoMemPool, which corresponds to the Cisco Memory Pool dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Memory Pool Utilization (poolUtil)
 - Normal: Normal usage calculated from a 30-day rolling baseline
 - Actual: Average usage percentage during the selected period

- Deviation (%): Actual usage calculated as a percentage above or below the normal value
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Deviation from Normal Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Deviation from Normal report.

Top Projections - Cisco CPU Utilization

Displays 30, 60, and 90-day projections for CPU usage for those Cisco devices in a reporting group with the highest usage growth rates.

Top Projections - Cisco CPU Utilization					8 Jul 2009 - 7 Oct 2009 CDT	
Name	Metric	Last 90 Days ▾	30 Days	60 Days	90 Days	
QARouter-2620-4.QA.local	CPU Utilization	17.63% 	18.97%	19.62%	20.26%	
mnrouter1.redpt.com	CPU Utilization	16.97% 	14.25%	13.20%	12.15%	
Mimic2Dev594	CPU Utilization	4.00% 	4.00%	4.00%	4.00%	
BethsRouter.QA.local	CPU Utilization	2.26% 	2.71%	2.92%	3.13%	
Mimic2Dev156	CPU Utilization	2.00% 	2.00%	2.00%	2.00%	
Device11	CPU Utilization	2.00% 	2.00%	2.00%	2.00%	
Mimic2Dev100	CPU Utilization	2.00% 	2.00%	2.00%	2.00%	
Device12	CPU Utilization	2.00% 	2.00%	2.00%	2.00%	
Mimic2Dev155	CPU Utilization	2.00% 	2.00%	2.00%	2.00%	
Device20	CPU Utilization	2.00% 	2.00%	2.00%	2.00%	


Show Top: 10 ▾

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: CPU Utilization
 - Last 90 Days: The usage growth rate calculated over the preceding 90 days
 - 30 Days: The projected usage increase 30 days from now
 - 60 Days: The projected usage increase 60 days from now
 - 90 Days: The projected usage increase 90 days from now
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Projections Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Projections report.

Top Projections - Cisco Memory Utilization

Displays 30, 60, and 90-day projections for memory pool usage for those Cisco devices in a reporting group with the highest usage growth rates.

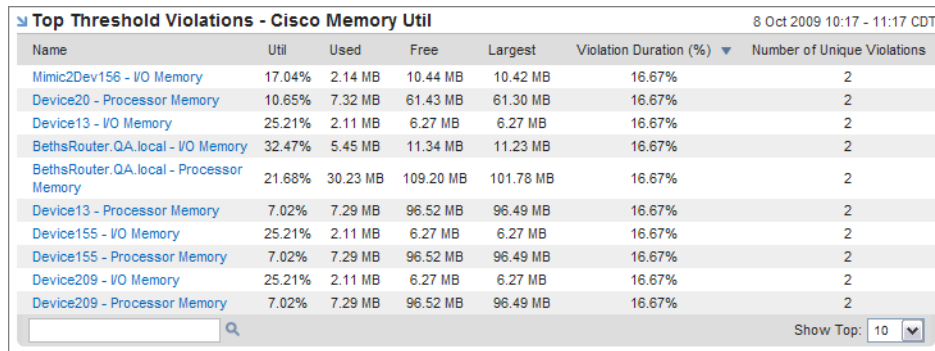
Top Projections - Cisco Memory Utilization						8 Jul 2009 - 7 Oct 2009 CDT
Name	Metric	Last 90 Days ▾	30 Days	60 Days	90 Days	
mnrouter1.redpt.com - Processor Memory	Memory Pool Utilization	73.01%	132.03%	154.96%	177.89%	
QARouter-2620-4.QA.local - I/O Memory	Memory Pool Utilization	39.04%	39.16%	39.22%	39.27%	
BethsRouter.QA.local - I/O Memory	Memory Pool Utilization	32.76%	33.00%	33.12%	33.24%	
Device25 - I/O Memory	Memory Pool Utilization	25.21%	25.21%	25.21%	25.21%	
Device209 - I/O Memory	Memory Pool Utilization	25.21%	25.21%	25.21%	25.21%	
Device155 - I/O Memory	Memory Pool Utilization	25.21%	25.21%	25.21%	25.21%	
Device13 - I/O Memory	Memory Pool Utilization	25.21%	25.21%	25.21%	25.21%	
Mimic2Dev155 - Processor Memory	Memory Pool Utilization	23.13%	0.00%	0.00%	0.00%	
BethsRouter.QA.local - Processor Memory	Memory Pool Utilization	19.07%	27.13%	30.99%	34.85%	
Mimic2Dev156 - I/O Memory	Memory Pool Utilization	17.04%	17.04%	17.04%	17.04%	
<input type="text"/>						Show Top: 10 ▾

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoMemPool, which corresponds to the Cisco Memory Pool dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: Memory Pool Utilization
 - Last 90 Days: The usage growth rate calculated over the preceding 90 days
 - 30 Days: The projected usage increase 30 days from now
 - 60 Days: The projected usage increase 60 days from now
 - 90 Days: The projected usage increase 90 days from now
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Projections Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Projections report.

Top Threshold Violations - Cisco Memory Util

Displays memory pool usage threshold alarms that occurred on Cisco devices in a reporting group, with statistics for the used memory, free memory, and the size of the largest contiguous block of memory.

The view also displays the percent of time (Violation Duration) that the value exceeded the threshold and the number of unique threshold crossing events (Number of Unique Violations) observed during the selected period.



Name	Util	Used	Free	Largest	Violation Duration (%)	Number of Unique Violations
Mimic2Dev156 - I/O Memory	17.04%	2.14 MB	10.44 MB	10.42 MB	16.67%	2
Device20 - Processor Memory	10.65%	7.32 MB	61.43 MB	61.30 MB	16.67%	2
Device13 - I/O Memory	25.21%	2.11 MB	6.27 MB	6.27 MB	16.67%	2
BethsRouter.QA.local - I/O Memory	32.47%	5.45 MB	11.34 MB	11.23 MB	16.67%	2
BethsRouter.QA.local - Processor Memory	21.68%	30.23 MB	109.20 MB	101.78 MB	16.67%	2
Device13 - Processor Memory	7.02%	7.29 MB	96.52 MB	96.49 MB	16.67%	2
Device155 - I/O Memory	25.21%	2.11 MB	6.27 MB	6.27 MB	16.67%	2
Device155 - Processor Memory	7.02%	7.29 MB	96.52 MB	96.49 MB	16.67%	2
Device209 - I/O Memory	25.21%	2.11 MB	6.27 MB	6.27 MB	16.67%	2
Device209 - Processor Memory	7.02%	7.29 MB	96.52 MB	96.49 MB	16.67%	2

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- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoMemPool, which corresponds to the Cisco Memory Pool dataset in NetVoyant. The view includes data for the following expressions:
 - Util: Average processor memory usage for the Cisco device and resource type
 - Used: Number of MB from the processor memory pool that are in use by applications on the device
 - Free: Number of MB from the processor memory pool that are unused
 - Largest: Number of MB for the largest number of contiguous bytes from the processor memory pool that are unused
 - Violation Duration (%): Total threshold event duration for the reporting period, as a percentage
 - Number of Unique Violations: Number of unique threshold events
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Threshold Violations - Cisco System

Displays system-related threshold alarms that occurred on Cisco devices in a reporting group, with statistics for buffer usage categorized by buffer size.

The view also displays the percent of time (Violation Duration) that the value exceeded the threshold and the number of unique threshold crossing events (Number of Unique Violations) observed during the selected period.

Top Threshold Violations - Cisco System								8 Sep 2009 - 7 Oct 2009 CDT	
Name	CPU Util	Small	Medium	Big	Large	Huge	Violation Duration (%)	Number of Unique Violations	
Mimic2Dev156	2.00%	2.4	0.0	4.0	0.0	0.0	99.9%	5.47 K	
QARouter-2620-4.QA.local	31.00%	5.3	12.2	15.8	0.0	0.0	98.7%	8.52 K	
Device20	2.00%	2.4	0.0	4.0	0.0	0.0	98.7%	8.52 K	
Device12	2.00%	2.4	0.0	4.0	0.0	0.0	98.7%	8.52 K	
Device11	2.00%	2.4	0.0	4.0	0.0	0.0	98.7%	8.52 K	
Mimic2Dev155	2.00%	2.4	0.0	4.0	0.0	0.0	98.6%	8.52 K	
Mimic2Dev100	2.00%	2.4	0.0	4.0	0.0	0.0	98.6%	8.52 K	
Mimic2Dev594	4.00%	6.0	0.0	4.0	0.0	0.0	98.5%	8.51 K	
BethsRouter.QA.local	5.00%	13.3	1.5	19.9	0.0	0.0	98.5%	8.51 K	
mnrouter1.redpt.com	22.00%	3.1	3.2	0.3	0.0	0.0	39.0%	3.03 K	

Note: Placing the cursor over the CPU Util value displays the threshold value used to generate the violations (alarms).

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoSystem, which corresponds to the Cisco System Resources dataset in NetVoyant. The view includes data for the following expression:
 - CPU Util: Average CPU usage for the Cisco device
 - Small: Average usage of small buffers (104 bytes)
 - Medium: Average usage of middle buffers (600 bytes)
 - Big: Average usage of big buffers (1524 bytes)
 - Large: Average usage of large buffers (5024 bytes)
 - Huge: Average usage of huge buffers (18024 bytes)
 - Violation Duration (%): Total threshold event duration for the reporting period, as a percentage
 - Number of Unique Violations: Number of unique threshold events
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Threshold Violations Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Threshold Violations report and the Alerts and Violations report.

Top Threshold Violations - Switch Backplane Util

Displays backplane usage threshold alarms that have occurred on Cisco devices in a reporting group. Values that exceeded threshold display as red values.

The view also displays the percent of time (Violation Duration) that the value exceeded the threshold and the number of unique threshold crossing events (Number of Unique Violations) observed during the selected period.

Name	Backplane Util (%)	Peak Backplane Util (%)	Violation Duration (%) ▼	Number of Unique Violations
Mimic2Dev67 - systemSwitchingBus	16.00%	70.00%	93.58%	7.82 K

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- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ciscoSwitch, which corresponds to the Cisco Backplane Traffic dataset in NetVoyant. The view includes data for the following expressions:
 - Backplane Util: Average backplane usage for the Cisco switch device
 - BackPlane Peak: Peak backplane usage value for the Cisco switch device
 - Violation Duration (%): Total threshold event duration for the reporting period, as a percentage
 - Number of Unique Violations: Number of unique threshold events
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Threshold Violations Report](#).

SERVICE EXCEPTIONS VIEWS

The following topics describe the views related to service exceptions that you can add to your report pages. This information includes the view styles available for each view, the dataset used to render the view, and the standard report pages that include the view.

Note: Service exception views cannot be edited in the Custom View Wizard.

Important: These views display exceptions that were active (open) during the selected reporting period and not cleared until after the start time of that period, but generated during or before that period.

Event Log

Displays a list of all NetVoyant events for a reporting group or managed object occurring during the selected period.

Events are actions, changes, or other occurrences that NetVoyant tracks using event logs. Each event has a severity assigned to it, which can be one of the following: normal, warning, minor, major, critical or a custom severity level.

Event Log				9 Jul 2009 - 8 Oct 2009 CDT
Event Description	Severity	Supplier	Date/Time ▼	
ifstats: data validation failed for Device13 - ATM Interface(2412) - More discards than packets: [ifOutDiscards:1503.000000] <= [outucastpkts:50.000000] + [outnucastpkts:5.000000]	Warning	Polls	10/9/2009 1:30:21 PM	
ifstats: data validation failed for Device12 - 0(2289) - More discards than packets: [ifOutDiscards:2094.000000] <= [outucastpkts:0.000000] + [outnucastpkts:0.000000]	Warning	Polls	10/9/2009 1:30:21 PM	
ifstats: data validation failed for Mimic2Dev155 - 0(1392) - More discards than packets: [ifOutDiscards:606.000000] <= [outucastpkts:31.000000] + [outnucastpkts:3.000000]	Warning	Polls	10/9/2009 1:30:21 PM	
ifstats: data validation failed for Device12 - NetQoS and Beyond(2282) - More discards than packets: [ifOutDiscards:599.000000] <= [outucastpkts:29.000000] + [outnucastpkts:2.000000]	Warning	Polls	10/9/2009 1:30:21 PM	
ifstats: data validation failed for Device12 - Nu0(2285) - More discards than packets: [ifOutDiscards:1196.000000] <= [outucastpkts:0.000000] + [outnucastpkts:0.000000]	Warning	Polls	10/9/2009 1:30:21 PM	
ifstats: data validation failed for Device12 - 0(2287) - More discards than packets: [ifOutDiscards:1195.000000] <= [outucastpkts:0.000000] + [outnucastpkts:0.000000]	Warning	Polls	10/9/2009 1:30:21 PM	
ifstats: data validation failed for Device12 - 0(2288) - More discards than packets: [ifOutDiscards:901.000000] <= [outucastpkts:0.000000] + [outnucastpkts:0.000000]	Warning	Polls	10/9/2009 1:30:21 PM	
ifstats: data validation failed for Mimic2Dev155 - 0(1291) - More discards than packets: [ifOutDiscards:2120.000000] <= [outucastpkts:0.000000] + [outnucastpkts:0.000000]	Warning	Polls	10/9/2009 1:30:21 PM	
ifstats: data validation failed for Mimic2Dev155 - 0(1290) - More discards than packets: [ifOutDiscards:907.000000] <= [outucastpkts:0.000000] + [outnucastpkts:0.000000]	Warning	Polls	10/9/2009 1:30:21 PM	
ifstats: data validation failed for Mimic2Dev155 - 0(1289) - More discards than packets: [ifOutDiscards:1208.000000] <= [outucastpkts:0.000000] + [outnucastpkts:0.000000]	Warning	Polls	10/9/2009 1:30:21 PM	
<input type="text"/> <input type="button" value="Q"/>				1 ◀ 81 82 83 84 85 ▶ 8855 Max Per Page: 10 ▼

Note: This view cannot be edited in the Custom View Wizard.

- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The view acquires data from the NetVoyant event log and includes the following information:
 - Event Description: Descriptive information for the event occurrence
 - Severity: The severity level associated with the event, which can be one of the following severity levels: Warning, Minor, Major, or Critical.
 - Supplier: The NetVoyant service logging the event
 - Date/time: The server date and time at which the event occurred.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Events Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Details report and Switch Details report.

Service Exceptions

Displays a list of all NetVoyant alarm and events for a reporting group or managed object occurring during the selected period. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions						9 Oct 2009 14:24 - 15:24 CDT
Description	Type	Severity	Supplier	Date/Time	Cleared	
Threshold exceeded: Interface Availability for Mimic2Device100 - 0 (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	8/24/2009 12:10:27 PM		
Threshold exceeded: Interface Availability for Mimic2Device100 - 0 (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	8/24/2009 12:10:27 PM		
Threshold exceeded: Interface Availability for Mimic2Device100 - 0 (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	8/24/2009 12:10:27 PM		
Threshold exceeded: Interface Availability for Mimic2Device100 - 0 (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	8/24/2009 12:10:27 PM		
Threshold exceeded: Interface Availability for Mimic2Device100 - 0 (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	8/24/2009 12:10:27 PM		
Threshold exceeded: Interface Availability for Mimic2Device100 - 0 (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	8/24/2009 12:10:27 PM		
Threshold exceeded: Interface Availability for Mimic2Device100 - 0 (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	8/24/2009 12:10:27 PM		
Threshold exceeded: Interface Availability for Mimic2Device100 - 0 (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	8/24/2009 12:10:27 PM		
Threshold exceeded: Interface Availability for Mimic2Device100 - 0 (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	8/24/2009 12:10:27 PM		
<input type="text"/> 1 42 43 44 45 46 209 Max Per Page: 10						

- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The service exception information is rendered from active alarm events on all datasets. The view displays the following information for each alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Log - Results from an action that NetVoyant services perform along with topology changes in your network or devices
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
 - Severity: The severity level of the alarm. Alarms can be one of the following severity levels: Warning, Minor, Major, or Critical.
 - Supplier: The NetVoyant service that initiated the event
 - Date/Time: The server date and time at which the alarm event occurred
 - Cleared: The date and time when the alarm event was cleared
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Service Exceptions - Availability

Displays a list of NetVoyant alarms related to availability for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - Availability				11 Oct 2009 11:00 - 12 Oct 2009 11:00 CDT	
Description	Type	Severity	Supplier	Date/Time	Cleared
Threshold exceeded: Availability for NAM (availability [27.166700] < 100.000000)	Threshold	Critical	Polls	10/12/2009 8:15:01 AM	10/12/2009 8:20:01 AM
Threshold exceeded: Availability for NAM (availability [38.333302] < 100.000000)	Threshold	Critical	Polls	10/12/2009 4:15:00 AM	10/12/2009 4:20:00 AM
Threshold exceeded: Availability for NAM (availability [27.333300] < 100.000000)	Threshold	Critical	Polls	10/12/2009 12:15:01 AM	10/12/2009 12:20:01 AM
Threshold exceeded: Availability for NAM (availability [37.833302] < 100.000000)	Threshold	Critical	Polls	10/11/2009 8:15:01 PM	10/11/2009 8:20:01 PM
Threshold exceeded: Availability for NAM (availability [26.166700] < 100.000000)	Threshold	Critical	Polls	10/11/2009 4:15:01 PM	10/11/2009 4:20:01 PM
Threshold exceeded: Availability for NAM (availability [36.500000] < 100.000000)	Threshold	Critical	Polls	10/11/2009 12:15:00 PM	10/11/2009 12:20:00 PM
Threshold exceeded: test1 for Mimic2Device100 (availability [100.000000] > 1.000000)	Threshold	Minor	Polls	9/19/2009 12:25:01 AM	
Threshold exceeded: test1 for Device209 (availability [100.000000] > 1.000000)	Threshold	Minor	Polls	9/10/2009 3:45:01 PM	
Threshold exceeded: test1 for Mimic2Dev155 (availability [100.000000] > 1.000000)	Threshold	Minor	Polls	9/10/2009 3:45:01 PM	
Threshold exceeded: test1 for Device155 (availability [100.000000] > 1.000000)	Threshold	Minor	Polls	9/10/2009 3:45:01 PM	

- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The service exception information is rendered from active alarm events for the avail dataset. The view displays the following information for each availability alarm event:
 - Description: Description of the alarm event that occurred.
 - Type: Type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
 - Severity: Severity level of the alarm. Alarms can be one of the following severity levels: Warning, Minor, Major, or Critical.
 - Supplier: NetVoyant service that initiated the event
 - Date/Time: Server date and time at which the alarm event occurred
 - Cleared: Date and time stamp when the alarm event was cleared
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Server Exceptions Report](#), [Router Exceptions Report](#), [Switch Exceptions Report](#), and [Device Exceptions Report](#).

Service Exceptions - CBQoS Class Maps

Displays a list of NetVoyant alarms related to CBQoS class maps for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - CBQoS Class Maps						16 Oct 2009 10:32 - 11:32 CDT
Description	Type	Severity	Supplier	Date/Time	Cleared	
qosclass: polling failed for mnrouter1.redpt.com Et3/0-Out-custom class-default: 100% SNMP Loss	Polling	Minor	Polls	8/27/2009 4:50:10 PM		
qosclass: polling failed for mnrouter1.redpt.com Et3/1-Out-QPM_MN2_1 class-default: 100% SNMP Loss	Polling	Minor	Polls	8/27/2009 4:50:10 PM		
qosclass: polling failed for mnrouter1.redpt.com Et3/2-Out-QPM_MN1 class-default: 100% SNMP Loss	Polling	Minor	Polls	8/27/2009 4:50:10 PM		
qosclass: polling failed for mnrouter1.redpt.com Et3/3-Out-test gold: 100% SNMP Loss	Polling	Minor	Polls	8/27/2009 4:50:10 PM		
qosclass: polling failed for mnrouter1.redpt.com Et3/3-Out-test class-default: 100% SNMP Loss	Polling	Minor	Polls	8/27/2009 4:50:10 PM		
qosclass: polling failed for mnrouter1.redpt.com Et3/1-Out-QPM_MN2 QPM_silver1: 100% SNMP Loss	Polling	Minor	Polls	8/27/2009 4:50:10 PM		
qosclass: polling failed for mnrouter1.redpt.com Et3/1-Out-QPM_MN2 class-default: 100% SNMP Loss	Polling	Minor	Polls	8/27/2009 4:50:10 PM		

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The service exception information is rendered from active alarm events for the qosclass dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
 - Severity: The severity level of the alarm. Alarms can be one of the following severity levels: Warning, Minor, Major, or Critical.
 - Supplier: The NetVoyant service that initiated the event
 - Date/Time: The server date and time at which the alarm event occurred
 - Cleared: The date and time when the alarm event was cleared
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Router Exceptions Report](#), and [Switch Exceptions Report](#).

Service Exceptions - CBQoS IP Header Compression

Displays a list of NetVoyant alarms related to CBQoS IP header compression for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The service exception information is rendered from active alarm events for the qosiphc dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.

Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.

- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Router Exceptions Report](#) and [Switch Exceptions Report](#).

Service Exceptions - CBQoS Match Statements

Displays a list of NetVoyant alarms related to CBQoS match statements for a reporting group or managed object occurring during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Description	Type	Severity	Supplier	Date/Time	Cleared
qosmatch: polling failed for mnrouter1.redpt.com Et3/0-Out-gold: No data returned	Polling	Minor	Polls	11/18/2009 4:40:01 PM	
qosmatch: polling failed for mnrouter1.redpt.com Et3/0-Out-gold: No data returned	Polling	Minor	Polls	11/18/2009 4:40:01 PM	

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The service exception information is rendered from active alarm events for the qosmatch dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Router Exceptions Report](#), and [Switch Exceptions Report](#).

Service Exceptions - CBQoS Police Action

Displays a list of NetVoyant alarms related to CBQoS police actions for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - CBQoS Police Action						5 Jan 2010 - 3 Feb 2010 CST
Description	Type	Severity	Supplier	Date/Time	Cleared	
qospolice: polling failed for Mimic2Dev155 Fa2/0-Out-class-default: 100% SNMP Loss	Polling	Minor	Polis	2/3/2010 4:45:11 PM	2/3/2010 4:55:04 PM	
qospolice: polling failed for Mimic2Dev155 Fa2/0-Out-QPM_silver1: 100% SNMP Loss	Polling	Minor	Polis	2/3/2010 4:45:11 PM	2/3/2010 4:55:04 PM	
qospolice: polling failed for Mimic2Dev156 Fa2/0-Out-class-default: 100% SNMP Loss	Polling	Minor	Polis	2/3/2010 4:45:11 PM	2/3/2010 4:55:04 PM	
qospolice: polling failed for Mimic2Dev156 Fa2/0-Out-QPM_silver1: 100% SNMP Loss	Polling	Minor	Polis	2/3/2010 4:45:11 PM	2/3/2010 4:55:04 PM	
qospolice: polling failed for Mimic2Dev594 Gi0/0-In-CONTROL-PLANE-SNMP: 100% SNMP Loss	Polling	Minor	Polis	2/3/2010 4:45:11 PM	2/3/2010 4:55:03 PM	

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The service exception information is rendered from active alarm events for the `qospolice` dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Router Exceptions Report](#), and [Switch Exceptions Report](#).

Service Exceptions - CBQoS Police Color

Displays a list of NetVoyant alarms related to CBQoS police color for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - CBQoS Police Color						7 Dec 2009 12:13 - 13:13 CST
Description	Type	Severity	Supplier	Date/Time	Cleared	
qoscolor: polling failed for Device20 Fa2/0-Out-class-default: No data returned	Polling	Minor	Polis	11/10/2009 9:30:01 AM		
qoscolor: polling failed for Device20 Fa2/0-Out-QPM_silver1: No data returned	Polling	Minor	Polis	11/10/2009 9:30:01 AM		

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The service exception information is rendered from active alarm events for the `qoscolor` dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.

-
- Styles: This view can be displayed as a table only.
 - Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Router Exceptions Report](#), and [Switch Exceptions Report](#).

Service Exceptions - CBQoS Queueing

Displays a list of NetVoyant alarms related to CBQoS queueing for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The service exception information is rendered from active alarm events for the qosque dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Router Exceptions Report](#), and [Switch Exceptions Report](#).

Service Exceptions - CBQoS RED

Displays a list of NetVoyant alarms related to CBQoS RED for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - CBQoS RED						7 Nov 2009 - 6 Dec 2009 CST
Description	Type	Severity	Supplier	Date/Time	Cleared	
qosred: polling failed for mnrouter1.redpt.com RED Class 0 Et3/2-Out-class-default: 100% SNMP Loss	Polling	Minor	Polis	12/1/2009 9:35:11 AM		
qosred: polling failed for mnrouter1.redpt.com RED Class 1 Et3/2-Out-class-default: 100% SNMP Loss	Polling	Minor	Polis	12/1/2009 9:35:11 AM		
qosred: polling failed for mnrouter1.redpt.com RED Class 2 Et3/2-Out-class-default: 100% SNMP Loss	Polling	Minor	Polis	12/1/2009 9:35:11 AM		
qosred: polling failed for mnrouter1.redpt.com RED Class 3 Et3/2-Out-class-default: 100% SNMP Loss	Polling	Minor	Polis	12/1/2009 9:35:11 AM		
qosred: polling failed for mnrouter1.redpt.com RED Class 4 Et3/2-Out-class-default: 100% SNMP Loss	Polling	Minor	Polis	12/1/2009 9:35:11 AM		
qosred: polling failed for mnrouter1.redpt.com RED Class 5 Et3/2-Out-class-default: 100% SNMP Loss	Polling	Minor	Polis	12/1/2009 9:35:11 AM		
qosred: polling failed for mnrouter1.redpt.com RED Class 6 Et3/2-Out-class-default: 100% SNMP Loss	Polling	Minor	Polis	12/1/2009 9:35:11 AM		
qosred: polling failed for mnrouter1.redpt.com RED Class 7 Et3/2-Out-class-default: 100% SNMP Loss	Polling	Minor	Polis	12/1/2009 9:35:11 AM		

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The service exception information is rendered from active alarm events for the qosred dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Router Exceptions Report](#), and [Switch Exceptions Report](#).

Service Exceptions - CBQoS Set

Displays a list of NetVoyant alarms related to CBQoS sets for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - CBQoS Set						5 Jan 2010 - 3 Feb 2010 CST
Description	Type	Severity	Supplier	Date/Time	Cleared	
qosset: polling failed for Mimic2Dev594 Gi0/1-Out-PLATINUM: No data returned	Polling	Minor	Polis	12/22/2009 2:30:04 PM		
qosset: polling failed for Mimic2Dev594 Gi0/1-Out-GOLD: No data returned	Polling	Minor	Polis	12/22/2009 2:30:04 PM		
qosset: polling failed for Mimic2Dev594 Gi0/1-Out-SILVER: No data returned	Polling	Minor	Polis	12/22/2009 2:30:04 PM		
qosset: polling failed for Mimic2Dev594 Gi0/1-Out-BRONZE: No data returned	Polling	Minor	Polis	12/22/2009 1:10:06 PM		
qosset: polling failed for Mimic2Dev155 Lo0-Out-gold: No data returned	Polling	Minor	Polis	12/22/2009 10:39:01 AM		
qosset: polling failed for Mimic2Dev156 Lo0-Out-gold: No data returned	Polling	Minor	Polis	12/22/2009 10:39:01 AM		

- Context: This view requires a selected reporting group, device, or router to be displayed.

-
- **Data:** The service exception information is rendered from active alarm events for the qosset dataset. The view displays the following information for each availability alarm event:
 - **Description:** A description of the alarm event that occurred.
 - **Type:** The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
 - **Styles:** This view can be displayed as a table only.
 - **Standard NetVoyant reports:** This view is included in the [Alarms Report](#), [Router Exceptions Report](#), and [Switch Exceptions Report](#).

Service Exceptions - CBQoS Traffic Shaping

Displays a list of NetVoyant alarms related to CBQoS traffic shaping for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

- **Context:** This view requires a selected reporting group, device, or router to be displayed.
- **Data:** The service exception information is rendered from active alarm events for the qosset dataset. The view displays the following information for each availability alarm event:
 - **Description:** A description of the alarm event that occurred.
 - **Type:** The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- **Styles:** This view can be displayed as a table only.
- **Standard NetVoyant reports:** This view is included in the [Alarms Report](#), [Router Exceptions Report](#), and [Switch Exceptions Report](#).

Service Exceptions - Cisco Memory Pool

Displays a list of NetVoyant alarms related to Cisco memory pool data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - Cisco Memory Pool				Mon 30 Nov 2009 - Sun 6 Dec 2009 CST		
Description	Type	Severity	Supplier	Date/Time	Cleared	
🟡 ciscoMemPool: polling failed for mnrouter1.redpt.com - Processor Memory: 100% SNMP Loss	Polling	Minor	Polis	12/1/2009 9:35:15 AM		
🟡 ciscoMemPool: polling failed for mnrouter1.redpt.com - I/O Memory: 100% SNMP Loss	Polling	Minor	Polis	12/1/2009 9:35:15 AM		
🟡 ciscoMemPool: polling failed for Device25 - Processor Memory: 100% SNMP Loss	Polling	Minor	Polis	11/11/2009 4:20:11 PM		
🟡 ciscoMemPool: polling failed for Device25 - I/O Memory: 100% SNMP Loss	Polling	Minor	Polis	11/11/2009 4:20:11 PM		
🟡 Threshold exceeded: MemPool for Mimic2Dev156 - Processor Memory (poolUsed[7318220.000000] > 1.000000)	Threshold	Minor	Polis	10/28/2009 12:20:01 AM		
🟡 Threshold exceeded: MemPool for Mimic2Dev156 - I/O Memory (poolUsed[2144190.000000] > 1.000000)	Threshold	Minor	Polis	10/28/2009 12:20:01 AM		
🟡 Threshold exceeded: MemPool for mnrouter1.redpt.com - Processor Memory (poolUsed[14088400.000000] > 1.000000)	Threshold	Minor	Polis	10/20/2009 3:40:23 PM		
🟡 Threshold exceeded: MemPool for mnrouter1.redpt.com - I/O Memory (poolUsed[2571660.000000] > 1.000000)	Threshold	Minor	Polis	10/20/2009 3:40:23 PM		
🟡 Threshold exceeded: MemPool for Device25 - Processor Memory (poolUsed[7290630.000000] > 1.000000)	Threshold	Minor	Polis	10/20/2009 3:40:23 PM		
🟡 Threshold exceeded: MemPool for Device25 - I/O Memory (poolUsed[2114440.000000] > 1.000000)	Threshold	Minor	Polis	10/20/2009 3:40:23 PM		

- Context: This view requires a selected reporting group, device, router, or switch to be displayed.
- Data: The service exception information is rendered from active alarm events for the ciscoMemPool dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Router Exceptions Report](#), [Switch Exceptions Report](#), and [Device Exceptions Report](#).

Service Exceptions - Cisco NBAR

Displays a list of NetVoyant alarms related to NBAR protocol data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

- Context: This view requires a selected reporting group, device, router, or switch to be displayed.
- Data: The service exception information is rendered from active alarm events for the ciscoSystem dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.

Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.

- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Router Exceptions Report](#), and [Switch Exceptions Report](#).

Service Exceptions - Cisco Switch

Displays a list of NetVoyant alarms related to Cisco switch data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

- Context: This view requires a selected reporting group, device, router, or switch to be displayed.
- Data: The service exception information is rendered from active alarm events for the ciscoSwitch dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Router Exceptions Report](#), [Switch Exceptions Report](#), [Device Exceptions Report](#), and [Server Exceptions Report](#).

Service Exceptions - Cisco System

Displays a list of NetVoyant alarms related to Cisco system data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - Cisco System					Mon 30 Nov 2009 - Sun 6 Dec 2009 CST	
Description	Type	Severity	Supplier	Date/Time	Cleared	
● ciscoSystem: polling failed for mnrouter1.redpt.com: 100% SNMP Loss	Polling	Minor	Polls	12/1/2009 9:35:15 AM		
● ciscoSystem: polling failed for Device25: 100% SNMP Loss	Polling	Minor	Polls	11/11/2009 4:20:11 PM		
● Threshold exceeded: CPU Utilization for Mimic2Dev156 (avgBusy5[2.000000] >= 1.000000)	Threshold	Minor	Polls	10/28/2009 12:25:01 AM		
● Threshold exceeded: CPU Utilization for Mimic2Dev66 (avgBusy5[55.000000] >= 50.000000)	Threshold	Minor	Polls	10/7/2009 10:55:01 AM		
● Threshold exceeded: CPU Utilization for Device11 (avgBusy5[2.000000] >= 1.000000)	Threshold	Minor	Polls	9/2/2009 12:10:01 AM		
● Threshold exceeded: CPU Utilization for Mimic2Dev594 (avgBusy5[4.000000] >= 1.000000)	Threshold	Minor	Polls	8/26/2009 11:30:01 AM		
● Threshold exceeded: CPU Utilization for QARouter-2620-4.QA.local (avgBusy5[13.000000] >= 1.000000)	Threshold	Minor	Polls	8/26/2009 11:30:01 AM		
● Threshold exceeded: CPU Utilization for BethsRouter.QA.local (avgBusy5[2.000000] >= 1.000000)	Threshold	Minor	Polls	8/26/2009 11:30:01 AM		
● Threshold exceeded: CPU Utilization for Device20 (avgBusy5[2.000000] >= 1.000000)	Threshold	Minor	Polls	8/26/2009 11:30:01 AM		
● Threshold exceeded: CPU Utilization for Mimic2Device155 (avgBusy5[2.000000] >= 1.000000)	Threshold	Minor	Polls	8/26/2009 11:30:01 AM		

- Context: This view requires a selected reporting group, device, router, or switch to be displayed.
- Data: The service exception information is rendered from active alarm events for the ciscoSystem dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Router Exceptions Report](#), [Switch Exceptions Report](#), [Device Exceptions Report](#), and [Server Exceptions Report](#).

Service Exceptions - Ethernet

Displays a list of NetVoyant alarms related to Ethernet data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - Ethernet					5 Jan 2010 - 3 Feb 2010 CST
Description	Type	Severity	Supplier	Date/Time	Cleared
etherstats: polling failed for QA3-ProCurve::D2 -: 100% SNMP Loss	Polling	Minor	Polls	2/3/2010 4:45:54 PM	2/3/2010 4:55:46 PM
etherstats: polling failed for QA3-ProCurve::D3 -: 100% SNMP Loss	Polling	Minor	Polls	2/3/2010 4:45:54 PM	2/3/2010 4:55:46 PM
etherstats: polling failed for QA3-ProCurve::D4 -: 100% SNMP Loss	Polling	Minor	Polls	2/3/2010 4:45:54 PM	2/3/2010 4:55:46 PM
etherstats: polling failed for QA3-ProCurve::B7 -: 100% SNMP Loss	Polling	Minor	Polls	2/3/2010 4:45:54 PM	2/3/2010 4:55:46 PM
etherstats: polling failed for QA3-ProCurve::B8 -: 100% SNMP Loss	Polling	Minor	Polls	2/3/2010 4:45:54 PM	2/3/2010 4:55:46 PM
etherstats: polling failed for QA3-ProCurve::B9 -: 100% SNMP Loss	Polling	Minor	Polls	2/3/2010 4:45:54 PM	2/3/2010 4:55:46 PM
etherstats: polling failed for QA3-ProCurve::B10 -: 100% SNMP Loss	Polling	Minor	Polls	2/3/2010 4:45:54 PM	2/3/2010 4:55:46 PM
etherstats: polling failed for QA3-ProCurve::B11 -: 100% SNMP Loss	Polling	Minor	Polls	2/3/2010 4:45:54 PM	2/3/2010 4:55:46 PM
etherstats: polling failed for QA3-ProCurve::B12 -: 100% SNMP Loss	Polling	Minor	Polls	2/3/2010 4:45:54 PM	2/3/2010 4:55:46 PM
etherstats: polling failed for QA3-ProCurve::B13 -: 100% SNMP Loss	Polling	Minor	Polls	2/3/2010 4:45:54 PM	2/3/2010 4:55:46 PM

- Context: This view requires a selected reporting group, device, router, or switch to be displayed.
- Data: The service exception information is rendered from active alarm events for the etherStats dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#) and [Switch Exceptions Report](#).

Service Exceptions - Frame Relay

Displays a list of NetVoyant alarms related to Frame Relay data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - Frame Relay					Mon 30 Nov 2009 - Sun 6 Dec 2009 CST	
Description	Type	Severity	Supplier	Date/Time	Cleared	
● frcircuit: polling failed for Device25 - DLCI 1 on Link to Nowwhere: 100% SNMP Loss	Polling	Minor	Polis	11/11/2009 4:20:11 PM		
● frcircuit: polling failed for Device25 - DLCI 2 on Link to Nowwhere: 100% SNMP Loss	Polling	Minor	Polis	11/11/2009 4:20:11 PM		
● frcircuit: polling failed for Device25 - DLCI 3 on Link to Nowwhere: 100% SNMP Loss	Polling	Minor	Polis	11/11/2009 4:20:11 PM		
● frcircuit: polling failed for Device25 - DLCI 4 on Link to Nowwhere: 100% SNMP Loss	Polling	Minor	Polis	11/11/2009 4:20:11 PM		
● frcircuit: polling failed for Device25 - DLCI 5 on Link to Nowwhere: 100% SNMP Loss	Polling	Minor	Polis	11/11/2009 4:20:11 PM		
● frcircuit: polling failed for Device25 - DLCI 6 on Link to Nowwhere: 100% SNMP Loss	Polling	Minor	Polis	11/11/2009 4:20:11 PM		
● frcircuit: polling failed for Device25 - DLCI 7 on Link to Nowwhere: 100% SNMP Loss	Polling	Minor	Polis	11/11/2009 4:20:11 PM		
● frcircuit: polling failed for Device25 - DLCI 8 on Link to Nowwhere: 100% SNMP Loss	Polling	Minor	Polis	11/11/2009 4:20:11 PM		
● frcircuit: polling failed for Device25 - DLCI 9 on Link to Nowwhere: 100% SNMP Loss	Polling	Minor	Polis	11/11/2009 4:20:11 PM		
● frcircuit: polling failed for Device25 - DLCI 10 on Link to Nowwhere: 100% SNMP Loss	Polling	Minor	Polis	11/11/2009 4:20:11 PM		

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The service exception information is rendered from active alarm events for the frcircuit dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
 - Severity: The severity level of the alarm. Alarms can be one of the following severity levels: Warning, Minor, Major, or Critical.
 - Supplier: The NetVoyant service that initiated the event
 - Date/Time: The server date and time at which the alarm event occurred
 - Cleared: The date and time when the alarm event was cleared
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Device Exceptions Report](#), [Server Exceptions Report](#), and [Router Exceptions Report](#).

Service Exceptions - HR Processor

Displays a list of NetVoyant alarms related to Host Resources Processor data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.quantity

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - HR Processor						7 Dec 2008 - 6 Dec 2009 CST
Description	Type	Severity	Supplier	Date/Time	Cleared	
hrprocessor: polling failed for QA1-13::Intel: 100% SNMP Loss	Polling	Minor	Polls	12/6/2009 11:50:10 AM	12/6/2009 11:55:00 AM	
hrprocessor: polling failed for QA1-13::Intel: 100% SNMP Loss	Polling	Minor	Polls	12/6/2009 11:50:10 AM	12/6/2009 11:55:00 AM	
Threshold exceeded: CPU Utilization for QA1-11::Intel (hrprocessorload[56.333302] >= 1.000000)	Threshold	Major	Polls	12/6/2009 12:15:01 AM	12/6/2009 12:30:01 AM	
Threshold exceeded: CPU Utilization for QA1-11::Intel (hrprocessorload[56.000000] >= 1.000000)	Threshold	Major	Polls	12/6/2009 12:15:01 AM	12/6/2009 12:30:01 AM	
Threshold exceeded: CPU Utilization for QA1-11::Intel (hrprocessorload[54.500000] >= 2.000000)	Threshold	Minor	Polls	12/6/2009 12:10:01 AM	12/6/2009 12:30:01 AM	
Threshold exceeded: CPU Utilization for QA1-11::Intel (hrprocessorload[53.000000] >= 2.000000)	Threshold	Minor	Polls	12/6/2009 12:10:01 AM	12/6/2009 12:30:01 AM	
Threshold exceeded: CPU Utilization for QA1-13::Intel (hrprocessorload[39.000000] >= 1.000000)	Threshold	Major	Polls	12/3/2009 4:10:01 PM	12/7/2009 9:25:01 AM	
Threshold exceeded: CPU Utilization for QA1-13::Intel (hrprocessorload[2.000000] >= 1.000000)	Threshold	Major	Polls	12/3/2009 4:10:01 PM	12/7/2009 9:25:01 AM	
Threshold exceeded: CPU Utilization for QA1-13::Intel (hrprocessorload[38.000000] >= 2.000000)	Threshold	Minor	Polls	12/3/2009 4:05:01 PM	12/7/2009 9:25:01 AM	
Threshold exceeded: CPU Utilization for QA1-13::Intel (hrprocessorload[2.000000] >= 2.000000)	Threshold	Minor	Polls	12/3/2009 4:05:01 PM	12/7/2009 9:25:01 AM	

- Context: This view requires a selected reporting group, device, server, or router to be displayed.
- Data: The service exception information is rendered from active alarm events for the hrprocessor dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Device Exceptions Report](#), [Server Exceptions Report](#), [Router Exceptions Report](#), and [Switch Exceptions Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Server Dashboard report.

Service Exceptions - HR Storage

Displays a list of NetVoyant alarms related to Host Resources Storage data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - HR Storage					7 Dec 2008 - 6 Dec 2009 CST	
Description	Type	Severity	Supplier	Date/Time	Cleared	
hrstorage: polling failed for QA1-13::C:\Label: Serial Number 8c1510b6: 100% SNMP Loss	Polling	Minor	Polls	12/6/2009 11:50:10 AM	12/6/2009 11:55:00 AM	
hrstorage: polling failed for QA1-13::D:\Label:New Volume Serial Number acd1d1a0: 100% SNMP Loss	Polling	Minor	Polls	12/6/2009 11:50:10 AM	12/6/2009 11:55:00 AM	
hrstorage: polling failed for QA1-13::E:\: 100% SNMP Loss	Polling	Minor	Polls	12/6/2009 11:50:10 AM	12/6/2009 11:55:00 AM	
hrstorage: polling failed for QA1-13::Virtual Memory: 100% SNMP Loss	Polling	Minor	Polls	12/6/2009 11:50:10 AM	12/6/2009 11:55:00 AM	
hrstorage: polling failed for QA1-13::Physical Memory: 100% SNMP Loss	Polling	Minor	Polls	12/6/2009 11:50:10 AM	12/6/2009 11:55:00 AM	
hrstorage: polling failed for QA1-11::C:\Label: Serial Number 8c1510b6: 100% SNMP Loss	Polling	Minor	Polls	12/6/2009 11:50:02 AM	12/6/2009 11:55:00 AM	
hrstorage: polling failed for QA1-11::D:\Label:New Volume Serial Number acd1d1a0: 100% SNMP Loss	Polling	Minor	Polls	12/6/2009 11:50:02 AM	12/6/2009 11:55:00 AM	
hrstorage: polling failed for QA1-11::E:\: 100% SNMP Loss	Polling	Minor	Polls	12/6/2009 11:50:02 AM	12/6/2009 11:55:00 AM	
hrstorage: polling failed for QA1-11::Virtual Memory: 100% SNMP Loss	Polling	Minor	Polls	12/6/2009 11:50:02 AM	12/6/2009 11:55:00 AM	
hrstorage: polling failed for QA1-11::Physical Memory: 100% SNMP Loss	Polling	Minor	Polls	12/6/2009 11:50:02 AM	12/6/2009 11:55:00 AM	

- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The service exception information is rendered from active alarm events for the hrstorage dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Device Exceptions Report](#), [Server Exceptions Report](#), [Router Exceptions Report](#), and [Switch Exceptions Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Server Dashboard report.

Service Exceptions - Interfaces

Displays a list of NetVoyant alarms related to interface statistics data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - Interfaces						16 Oct 2009 11:03 - 12:03 CDT
Description	Type	Severity	Supplier	Date/Time	Cleared	
● ifstats: polling failed for Mimic2Dev67 - v-lan Router: 100% SNMP Loss	Polling	Minor	Polls	8/12/2009 9:05:25 AM		
● ifstats: polling failed for QA6-13 - Broadcom BCM5708C NetXtreme II GigE (NDIS VBD Client) #3: 100% SNMP Loss	Polling	Minor	Polls	8/25/2009 8:40:10 AM		
● Threshold exceeded: Interface Availability for mnrouter1.redpt.com - ethernet3/3 (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	7/30/2009 11:05:06 AM		
● Threshold exceeded: Interface Availability for BethsRouter.QA.local - lansnmpv3test (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	7/31/2009 3:25:03 PM		
● Threshold exceeded: Interface Availability for QARouter-2620-4.QA.local - FastEthernet0/1 (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	7/31/2009 3:25:03 PM		
● Threshold exceeded: Interface Availability for QARouter-2620-4.QA.local - Serial0/0 (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	7/31/2009 3:25:03 PM		
● Threshold exceeded: Interface Availability for Mimic2Dev65 - Group-Asy c10 (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	7/31/2009 3:25:03 PM		
● Threshold exceeded: Interface Availability for Mimic2Dev65 - Serial0/0/0 (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	7/31/2009 3:25:03 PM		
● Threshold exceeded: Interface Availability for Mimic2Dev67 - 10/100 utp ethernet (cat 3/5) (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	7/31/2009 3:25:03 PM		
● Threshold exceeded: Interface Availability for Mimic2Dev67 - 10/100 utp ethernet (cat 3/5) (ifavail[0.000000] < 100.000000)	Threshold	Critical	Polls	7/31/2009 3:25:03 PM		

- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The service exception information is rendered from active alarm events for the ifstats dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Device Exceptions Report](#), [Server Exceptions Report](#), [Router Exceptions Report](#), and [Switch Exceptions Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Interface Errors and Exceptions report.

Service Exceptions - IP SLA

Displays a list of NetVoyant alarms related to IP SLA operation data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - IP SLA						Fri 9 Oct 2009 - Thu 15 Oct 2009 CDT
Description	Type	Severity	Supplier	Date/Time	Cleared	
rttstats: polling failed for BethsRouter.QA.local - ICMP Echo - 10.0.7.9 - 10.0.7.8: No data returned	Polling	Minor	Polls	10/13/2009 9:25:01 AM	10/13/2009 9:30:01 AM	
rttstats: polling failed for Device25 - ICMP Echo - 10.0.11.1 - 10.0.11.65: No data returned	Polling	Minor	Polls	8/27/2009 1:55:01 PM		
rttstats: polling failed for Device25 - ICMP Echo - 10.0.11.1 - 192.168.3.11: No data returned	Polling	Minor	Polls	8/27/2009 1:55:01 PM		
rttstats: polling failed for Device13 - ICMP Echo - 10.0.11.1 - 10.0.11.65: No data returned	Polling	Minor	Polls	8/24/2009 11:55:01 AM		
rttstats: polling failed for Device13 - ICMP Echo - 10.0.11.1 - 192.168.3.11: No data returned	Polling	Minor	Polls	8/24/2009 11:55:01 AM		
rtthttp: polling failed for BethsRouter.QA.local -: No data returned	Polling	Minor	Polls	7/30/2009 10:55:04 AM		
rttstats: polling failed for BethsRouter.QA.local -: No data returned	Polling	Minor	Polls	7/30/2009 10:55:04 AM		
rttstats: polling failed for Device209 - ICMP Echo - 10.0.11.1 - 10.0.11.65: No data returned	Polling	Minor	Polls	7/30/2009 10:55:02 AM		
rttstats: polling failed for Device209 - ICMP Echo - 10.0.11.1 - 192.168.3.11: No data returned	Polling	Minor	Polls	7/30/2009 10:55:02 AM		
rttstats: polling failed for Device155 - ICMP Echo - 10.0.11.1 - 10.0.11.65: No data returned	Polling	Minor	Polls	7/30/2009 10:55:02 AM		

- Context: This view requires a selected reporting group, device, router, or switch to be displayed.
- Data: The service exception information is rendered from active alarm events for the rttstats dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Device Exceptions Report](#), [Server Exceptions Report](#), [Router Exceptions Report](#), and [IP SLA Report](#).
- Standard NetQoS Performance Center reports: This view is included in the IP SLA report.

Service Exceptions - Protocols (RMON2)

Displays a list of NetVoyant alarms related to RMON2 protocol data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The service exception information is rendered from active alarm events for protodist, which corresponds to the Protocol Distribution (RMON2) dataset in NetVoyant. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during

a scheduled polling cycle.

Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.

- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#) and [Switch Exceptions Report](#).

Service Exceptions - Reachability

Displays a list of NetVoyant alarms related to reachability data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - Reachability					10 Nov 2009 14:00 - 11 Nov 2009 14:00 CST	
Description	Type	Severity	Supplier	Date/Time	Cleared	
Threshold exceeded: Reachability In Range for IN-AUS1 (reachability[0.000000] < 50.000000)	Threshold	Minor	Polls	11/11/2009 11:51:00 AM	11/11/2009 11:53:00 AM	
reach: polling failed for IN-AUS1: 100% ICMP Loss	Polling	Major	Polls	11/11/2009 11:51:00 AM	11/11/2009 11:53:00 AM	
reach: polling failed for Device22: 100% ICMP Loss	Polling	Major	Polls	11/11/2009 11:48:00 AM	11/11/2009 11:49:00 AM	
Threshold exceeded: Reachability In Range for Device204 (reachability[0.000000] < 50.000000)	Threshold	Minor	Polls	11/11/2009 11:44:00 AM	11/11/2009 11:46:00 AM	
reach: polling failed for Device204: 100% ICMP Loss	Polling	Major	Polls	11/11/2009 11:43:00 AM	11/11/2009 11:46:00 AM	
Threshold exceeded: Reachability In Range for NAM (reachability[100.000000] > 5.000000)	Threshold	Minor	Polls	11/11/2009 11:35:01 AM	11/11/2009 11:36:35 AM	
Threshold cleared: Reachability In Range for NAM (reachability[100.000000] >= 50.000000)	Threshold	Minor	Polls	11/11/2009 11:35:01 AM	11/11/2009 11:40:01 AM	
Threshold exceeded: Reachability In Range for QARouter-2821.QA.local (reachability[100.000000] > 5.000000)	Threshold	Minor	Polls	11/11/2009 11:35:01 AM	11/11/2009 11:40:01 AM	
Threshold exceeded: Reachability In Range for Mimic2Dev594 (reachability[100.000000] > 5.000000)	Threshold	Minor	Polls	11/11/2009 11:35:01 AM	11/11/2009 11:40:01 AM	
Threshold exceeded: Reachability In Range for QARouter-2820-4.QA.local (reachability[100.000000] > 5.000000)	Threshold	Minor	Polls	11/11/2009 11:35:01 AM	11/11/2009 11:40:01 AM	

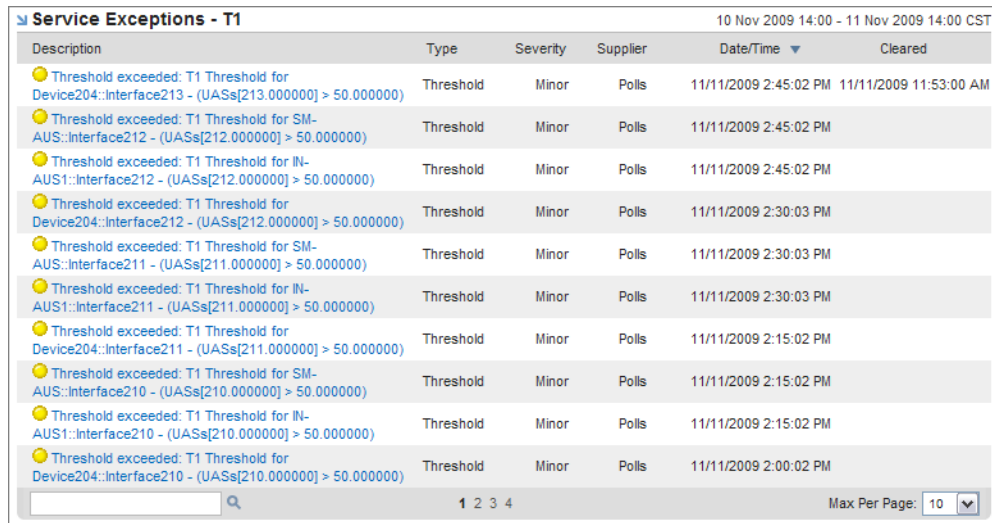
- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The service exception information is rendered from active alarm events for the reach dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Device Exceptions Report](#), [Server Exceptions Report](#), [Router Exceptions Report](#), and [Switch Exceptions Report](#).

Service Exceptions - T1

Displays a list of NetVoyant alarms related to T1 data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.



The screenshot shows a web-based report titled "Service Exceptions - T1" for the period "10 Nov 2009 14:00 - 11 Nov 2009 14:00 CST". The report contains a table with the following columns: Description, Type, Severity, Supplier, Date/Time, and Cleared. There are 10 rows of data, all of which are "Threshold exceeded" events. The descriptions are grouped by device and interface, with some entries showing a count in parentheses. The severity is "Minor" for all events, and the supplier is "Polls". The dates and times are consistent across the rows, indicating a single event type occurring multiple times. At the bottom of the table, there is a search bar, a page indicator "1 2 3 4", and a "Max Per Page" dropdown set to "10".

Description	Type	Severity	Supplier	Date/Time	Cleared
Threshold exceeded: T1 Threshold for Device204::Interface213 - (UASs[213.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 2:45:02 PM	11/11/2009 11:53:00 AM
Threshold exceeded: T1 Threshold for SM-AUS::Interface212 - (UASs[212.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 2:45:02 PM	
Threshold exceeded: T1 Threshold for IN-AUS1::Interface212 - (UASs[212.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 2:45:02 PM	
Threshold exceeded: T1 Threshold for Device204::Interface212 - (UASs[212.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 2:30:03 PM	
Threshold exceeded: T1 Threshold for SM-AUS::Interface211 - (UASs[211.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 2:30:03 PM	
Threshold exceeded: T1 Threshold for IN-AUS1::Interface211 - (UASs[211.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 2:30:03 PM	
Threshold exceeded: T1 Threshold for Device204::Interface211 - (UASs[211.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 2:15:02 PM	
Threshold exceeded: T1 Threshold for SM-AUS::Interface210 - (UASs[210.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 2:15:02 PM	
Threshold exceeded: T1 Threshold for IN-AUS1::Interface210 - (UASs[210.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 2:15:02 PM	
Threshold exceeded: T1 Threshold for Device204::Interface210 - (UASs[210.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 2:00:02 PM	

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The service exception information is rendered from active alarm events for the dsx1near dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Device Exceptions Report](#), [Server Exceptions Report](#), and [Router Exceptions Report](#).

Service Exceptions - T3

Displays a list of NetVoyant alarms related to T3 data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - T3						10 Nov 2009 16:00 - 11 Nov 2009 16:00 CST	
Description	Type	Severity	Supplier	Date/Time	Cleared		
Threshold exceeded: T3 Threshold for IN-AUS1::DS3 Statistics for 304 (UASs[304.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 4:15:02 PM			
Threshold exceeded: T3 Threshold for IN-AUS1::DS3 Statistics for 305 (UASs[305.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 4:15:02 PM			
Threshold exceeded: T3 Threshold for IN-AUS1::DS3 Statistics for 306 (UASs[306.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 4:15:02 PM			
Threshold exceeded: T3 Threshold for IN-AUS1::DS3 Statistics for 307 (UASs[307.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 4:15:02 PM			
Threshold exceeded: T3 Threshold for IN-AUS1::DS3 Statistics for 308 (UASs[308.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 4:15:02 PM			
Threshold exceeded: T3 Threshold for IN-AUS1::DS3 Statistics for 309 (UASs[309.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 4:15:02 PM			
Threshold exceeded: T3 Threshold for IN-AUS1::DS3 Statistics for 310 (UASs[310.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 4:15:02 PM			
Threshold exceeded: T3 Threshold for IN-AUS1::DS3 Statistics for 311 (UASs[311.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 4:15:02 PM			
Threshold exceeded: T3 Threshold for IN-AUS1::DS3 Statistics for 312 (UASs[312.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 4:15:02 PM			
Threshold exceeded: T3 Threshold for IN-AUS1::DS3 Statistics for 313 (UASs[313.000000] > 50.000000)	Threshold	Minor	Polls	11/11/2009 4:15:02 PM			

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The service exception information is rendered from active alarm events for the dsx3near dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Device Exceptions Report](#), [Server Exceptions Report](#), and [Router Exceptions Report](#).

Service Exceptions - Traps

Displays a list of NetVoyant alarms related to received SNMP traps for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

Service Exceptions - Traps					16 Oct 2009 12:24 - 13:24 CDT
Description	Type	Severity	Supplier	Date/Time	
ReporterAnalyzer Utilization Trap for Device9 (10.5.0.29)::shasta	Trap	Warning	Traps	10/16/2009 1:20:03 PM	
ReporterAnalyzer Utilization Trap for Device9 (10.5.0.29)::10M link to BRBBC001 ATM4/0.74-old(3831)	Trap	Warning	Traps	10/16/2009 1:19:54 PM	
ReporterAnalyzer Utilization Trap for Device9 (10.5.0.29)::10Mbps backbone PVC to BRBBD001 ATM4/0.5-old(3832)	Trap	Warning	Traps	10/16/2009 1:19:51 PM	
ReporterAnalyzer Utilization Trap for Device9 (10.5.0.29)::BACKUP SM PVC to BRBBC001 ATM6/0.76-old(3919)	Trap	Warning	Traps	10/16/2009 1:19:49 PM	
ReporterAnalyzer Utilization Trap for Device9 (10.5.0.29)::Interface 31	Trap	Warning	Traps	10/16/2009 1:19:47 PM	
<input type="text"/> <input type="button" value="Q"/>					1 2 3 4 5 ► 12 Max Per Page: 5 ▼

- Context: This view requires a selected reporting group, device, server, router, or switch to be displayed.
- Data: The service exception information is rendered from active alarm events for a combination of datasets. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Alarms Report](#), [Device Exceptions Report](#), [Server Exceptions Report](#), [Router Exceptions Report](#), [Switch Performance Report](#), and [Switch Exceptions Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Interface Errors and Exceptions report.

Service Exceptions - VoIP

Displays a list of NetVoyant alarms related to VoIP IP SLA operation data for a reporting group or managed object during the selected period.

Service exception views display events related to NetVoyant alarms within the specified group and dataset. Duplicate alarms are grouped and the quantity is displayed in the tool tip.

Note: The exceptions displayed are those that were active (open) during the selected period and not cleared until after the start time of that period, but generated during or before that period.

- Context: This view requires a selected reporting group, device, router, or switch to be displayed.
- Data: The service exception information is rendered from active alarm events for the rttjitter dataset. The view displays the following information for each availability alarm event:
 - Description: A description of the alarm event that occurred.
 - Type: The type of the event, which can be one the following:
 - Polling - Occurs when a device does not respond to an SNMP request from NetVoyant during a scheduled polling cycle.
 - Threshold - Occurs when a polled value for an expression goes beyond the threshold exceeded value set for the expression in an alarm profile.

- **Severity:** The severity level of the alarm. Alarms can be one of the following severity levels: Warning, Minor, Major, or Critical.
- **Supplier:** The NetVoyant service that initiated the event
- **Date/Time:** The server date and time at which the alarm event occurred
- **Cleared:** The date and time when the alarm event was cleared
- **Styles:** This view can be displayed as a table only.
- **Standard NetVoyant reports:** This view is included in the [Alarms Report](#) and [VoIP Report](#).
- **Standard NetQoS Performance Center reports:** This view is included in the Voice Over IP report.

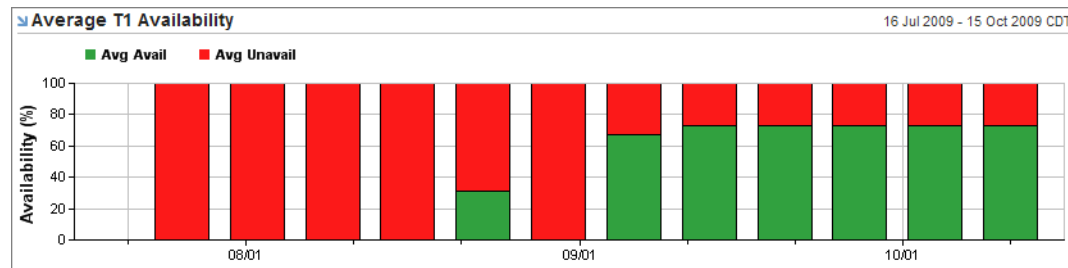
T1 AND T3 VIEWS

The following topics describe the views related to T1 and T3 interfaces that you can add to your report pages. This information includes the view styles available for each view, the dataset used to render the view, and the standard report pages that include the view.

Average T1 Availability

Displays the average availability and unavailability of T1 interfaces for a reporting group during the selected period.

Note: All T1 performance parameters are accumulated in 15-minute intervals, with up to 96 intervals (24 hours). Fewer than 96 intervals of data is available when the NetVoyant poller was restarted within the past 24 hours. Additionally, there is a rolling 24-hour total of each performance parameter.

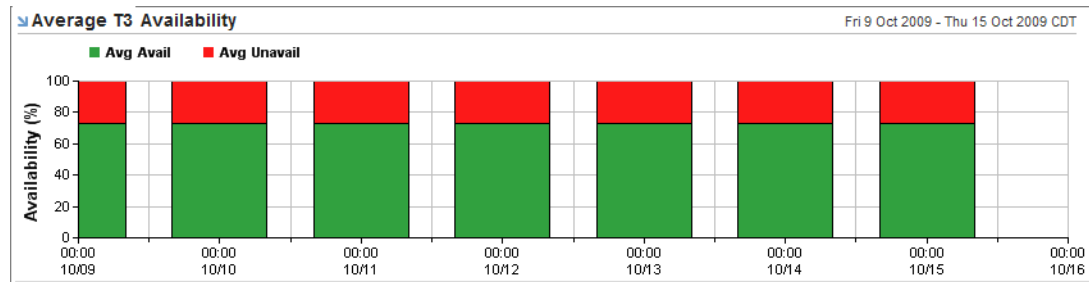


- **Context:** This view requires a selected reporting group to be displayed.
- **Data:** The metric used to render this view is dsx1near, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - **Avg Avail:** The average availability percentage
 - **Avg Unavail:** The average unavailability percentage
- **Styles:** This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- **Standard NetVoyant reports:** This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- **Standard NetQoS Performance Center reports:** This view is included in the WAN Summary report.

Average T3 Availability

Displays the average availability and unavailability of T3 interfaces for a reporting group during the selected period.

Note: All T3 performance parameters are accumulated in 15-minute intervals, with up to 96 intervals (24 hours). Fewer than 96 intervals of data is available when the NetVoyant poller was restarted within the past 24 hours. Additionally, there is a rolling 24-hour total of each performance parameter.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is dsx3near, which corresponds to the DS3 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avg Avail: The average availability percentage
 - Avg Unavail: The average unavailability percentage
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the WAN Summary report.

Closest to Threshold - T1

Displays those T1 interfaces in a reporting group that have unavailable seconds values closest to the threshold. This view also displays the projected number of days until the rate for each interface crosses the threshold.

Closest to Threshold views calculate the trend for an expression. When that calculation projects that the value for the expression will reach or exceed threshold within one year, the data is represented in the view. For example, when latency is on an incline and thus the baseline is also on an incline, a projection calculation predicts when the device will meet or exceed the threshold.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is dsx1near, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avg Avail: The average availability as a percentage calculated using the number of Unavailable Seconds encountered by a DS1 interface in one of the previous 96, individual 15-minute intervals subtracted from 100.

-
- Avg Unavail: The average unavailability as a percentage calculated using the number of Unavailable Seconds encountered by a DS1 interface in one of the previous 96, individual 15-minute intervals.
 - Styles: This view can be displayed as a table only.
 - Standard NetVoyant reports: This view is included in the [Top Closest to Threshold Report](#).
 - Standard NetQoS Performance Center reports: This view is included in the Top Closest to Threshold report.

Closest to Threshold - T3

Displays those T3 interfaces in a reporting group that have unavailable seconds values closest to the threshold. This view also displays the projected number of days until the rate for each interface crosses the threshold.

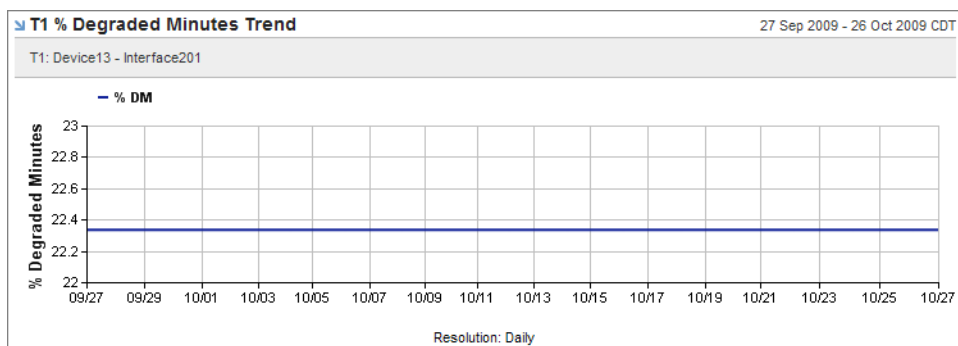
Closest to Threshold views calculate the trend for an expression. When that calculation projects that the value for the expression will reach or exceed threshold within one year, the data is represented in the view. For example, when latency is on an incline and thus the baseline is also on an incline, a projection calculation predicts when the device will meet or exceed the threshold.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is dsx3near, which corresponds to the DS3 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Avg Avail: The average availability as a percentage calculated using the number of Unavailable Seconds encountered by a DS3 interface in one of the previous 96, individual 15-minute intervals subtracted from 100.
 - Avg Unavail: The average unavailability as a percentage calculated using the number of Unavailable Seconds encountered by a DS3 interface in one of the previous 96, individual 15-minute intervals.
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Closest to Threshold Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Closest to Threshold report.

T1 % Degraded Minutes Trend

Displays the degraded minutes percentage on a DS1 (T1) interface over the selected period.

Note: All T1 performance parameters are accumulated in 15-minute intervals, with up to 96 intervals (24 hours). Fewer than 96 intervals of data are available when the NetVoyant poller was restarted within the past 24 hours. Additionally, there is a rolling 24-hour total of each performance parameter.

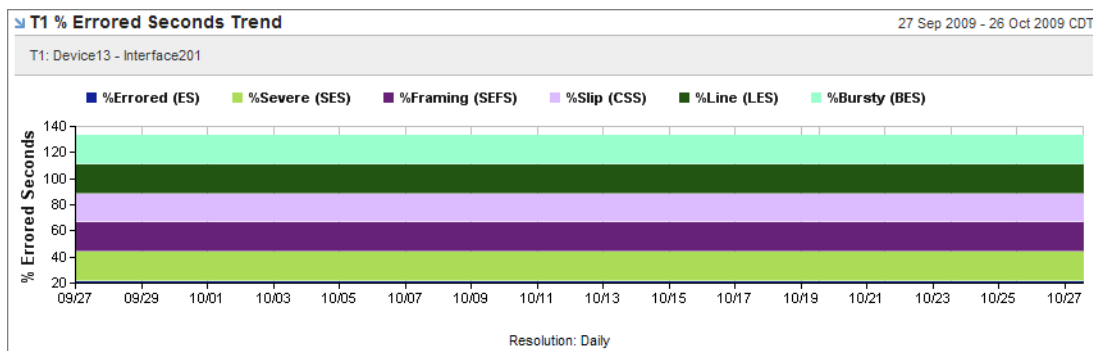


- Context: This view requires a selected T1 interface to be displayed.
- Data: The metric used to render this view is dsx1near, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expression:
 - % DM: Percentage of degraded minutes, which are determined by collecting all of the available seconds, removing severely errored seconds, grouping the result in 60-second long groups and counting a 60-second long group (minute) as degraded when the cumulative errors during the seconds present in the group exceed 1E-6.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

T1 % Errored Seconds Trend

Displays the percentage of errored seconds, by type, on a DS1 (T1) interface over the selected period.

Note: All T1 performance parameters are accumulated in 15-minute intervals, with up to 96 intervals (24 hours). Fewer than 96 intervals of data are available when the NetVoyant poller was restarted within the past 24 hours. Additionally, there is a rolling 24-hour total of each performance parameter.



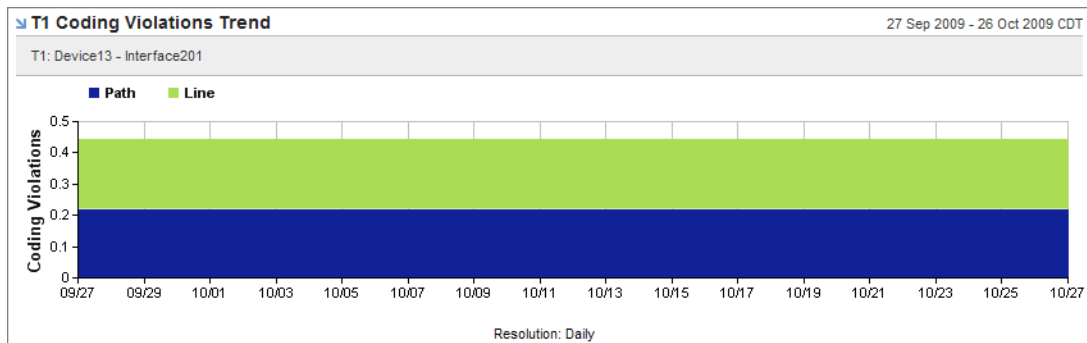
- Context: This view requires a selected T1 interface to be displayed.
- Data: The metric used to render this view is dsx1near, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - %Errored: Percentage of errored seconds, which are those with one or more Path Code violations, one or more out-of-frame defects, one or more controlled slip events, or a detected AIS defect.

- %Severe: Percentage of severely errored seconds, which are those with 320 or more Path Code violation error events, one or more out-of-frame defects, or a detected AIS defect.
- %Framing: Percentage of severely errored framing seconds, which are those with one or more out-of-frame defects or a detected AIS defect.
- %Slip: Percentage of controlled slip seconds, which are one-second intervals containing one or more controlled slips.
- %Line: Percentage of line errored seconds, which are those in which one or more Line Code violation error events were detected.
- %Bursty: Percentage of bursty errored seconds (also known as Errored Second type B), which are those with fewer than 320 and more than one Path Coding violation error events, no severely errored frame defects and no detected incoming AIS defects. Controlled slips are not included in this parameter.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [T1 Performance Report](#).

T1 % Coding Violations Trend

Displays the percentage of violations due to path or line coding in frame relay packets for a DS1 (T1) interface over the selected period of time.

Note: All T1 performance parameters are accumulated in 15-minute intervals, with up to 96 intervals (24 hours). Fewer than 96 intervals of data are available when the NetVoyant poller was restarted within the past 24 hours. Additionally, there is a rolling 24-hour total of each performance parameter.



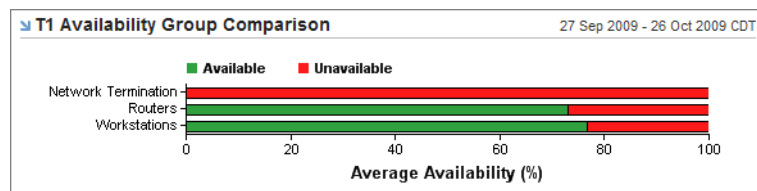
- Context: This view requires a selected T1 interface to be displayed.
- Data: The metric used to render this view is dsx1near, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Path: Number of path coding violations, which are frame synchronization bit errors in the D4 and E1-noCRC formats or CRC errors in the ESF and E1-CRC formats
 - Line: Number of line coding violations, which are occurrences of either a Bipolar Violation (BPV) or Excessive Zeroes (EXZ) Error Event.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [T1 Performance Report](#).

T1 Availability Group Comparison

Displays the overall availability and unavailability, by sub-group, for T1 interfaces in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

Note: All T1 performance parameters are accumulated in 15-minute intervals, with up to 96 intervals (24 hours). Fewer than 96 intervals of data are available when the NetVoyant poller was restarted within the past 24 hours. Additionally, there is a rolling 24-hour total of each performance parameter.



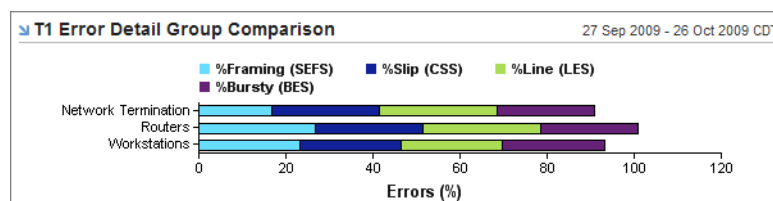
- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `dsx1near`, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Available: The average availability percentage
 - Unavailable: The average unavailability percentage
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [WAN Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the WAN Group Comparison report.

T1 Error Detail Group Comparison

Displays the average number for each error type, by sub-group, for T1 interfaces in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

Note: All T1 performance parameters are accumulated in 15-minute intervals, with up to 96 intervals (24 hours). Fewer than 96 intervals of data are available when the NetVoyant poller was restarted within the past 24 hours. Additionally, there is a rolling 24-hour total of each performance parameter.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `dsx1near`, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - %Framing: Average percentage of severely errored framing seconds, which are those with one or more out-of-frame defects or a detected AIS defect
 - %Slip: Average percentage of controlled slip seconds, which are one-second intervals containing one or more controlled slips
 - %Line: Average percentage of line errored seconds, which are those in which one or more Line Code violation error events were detected
 - %Bursty: Average percentage of bursty errored seconds (also known as Errored Second type B), which are those with fewer than 320 and more than one Path Coding violation error events, no severely errored frame defects and no detected incoming AIS defects. Controlled slips are not included in this parameter.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [WAN Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the WAN Group Comparison report.

T3 % Errored Seconds Trend

Displays the percentage of errored seconds, by type, on a DS3 (T3) circuit over the selected period.

Note: All T3 performance parameters are accumulated in 15-minute intervals, with up to 96 intervals (24 hours). Fewer than 96 intervals of data are available when the NetVoyant poller was restarted within the past 24 hours. Additionally, there is a rolling 24-hour total of each performance parameter.

- Context: This view requires a selected T3 circuit to be displayed.
- Data: The metric used to render this view is `dsx3near`, which corresponds to the DS3 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - %P-Bit (PES): Percentage of P-bit errored seconds, which are those with one or more PCVs, one or more out-of-frame defects, or a detected incoming AIS
 - %P-Bit Severe (PSEs): Percentage of P-bit Severely Errored Seconds, which are those with 44 or more PCVs, one or more out-of-Frame defects, or a detected incoming AIS
 - %Framing (SEFSs): Percentage of Severely Errored Framing Seconds, which are those with one or more out-of-frame defects or a detected incoming AIS
 - %Line (LESs): Percentage of Line Errored Seconds, which are those in which one or more CVs occurred or one or more LOS defects was detected
 - %C-Bit (CESS): Percentage of C-bit Errored Seconds, which are those with one or more CCVs, one or more out-of-frame defects, or a detected incoming AIS
Note: This parameter is only for the SYNTRAN and C-bit Parity DS3 applications.
 - %C-Bit Severe (CSEs): Percentage of C-bit Severely Errored Seconds, which are those with 44 or more CCVs, one or more out-of-Frame defects, or a detected incoming AIS
Note: This parameter is only for the SYNTRAN and C-bit Parity DS3 applications.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [T3 Performance Report](#).

T3 % Coding Violations Trend

Displays the percentage of violations due to line, P-bit, or C-bit coding, by date and time, for a DS3 (T3) interface over the selected period.

Note: All T3 performance parameters are accumulated in 15-minute intervals, with up to 96 intervals (24 hours). Fewer than 96 intervals of data are available when the NetVoyant poller was restarted within the past 24 hours. Additionally, there is a rolling 24-hour total of each performance parameter.

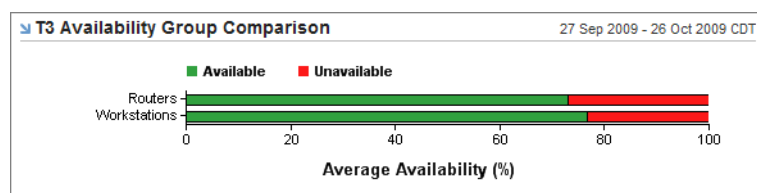
- Context: This view requires a selected T3 interface to be displayed.
- Data: The metric used to render this view is dsx3near, which corresponds to the DS3 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Line: Number of line coding violations, which are occurrences of either a Bipolar Violation (BPV) or Excessive Zeroes (EXZ) Error Event
 - P-bit: Number of P-bit coding violations (parity error events), which are occurrences of a received P-bit code on the DS3 M-frame that is not identical to the corresponding locally-calculated code
 - C-bit: Number of C-bit coding violations, which are coding violations reported by the C-bits. For C-bit parity, it is the number of CP-bit parity errors occurring in the accumulation interval. For SYNTRAN, it is the number of CRC-9 errors occurring in the accumulation interval
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [T3 Performance Report](#).

T3 Availability Group Comparison

Displays the overall availability and unavailability, by sub-group, for T3 circuits/interfaces in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

Note: All T3 performance parameters are accumulated in 15-minute intervals, with up to 96 intervals (24 hours). Fewer than 96 intervals of data are available when the NetVoyant poller was restarted within the past 24 hours. Additionally, there is a rolling 24-hour total of each performance parameter.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is dsx3near, which corresponds to the DS3 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Available: The average availability percentage
 - Unavailable: The average unavailability percentage

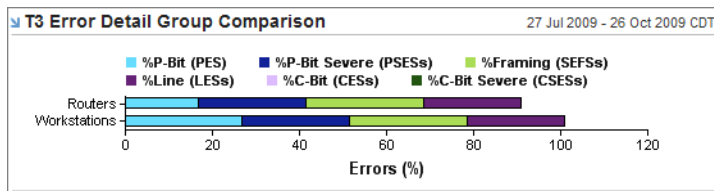
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [WAN Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the WAN Group Comparison report.

T3 Error Detail Group Comparison

Displays the average number for each error type, by sub-group, for T3 circuits/interfaces in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

Note: All T3 performance parameters are accumulated in 15-minute intervals, with up to 96 intervals (24 hours). Fewer than 96 intervals of data are available when the NetVoyant poller was restarted within the past 24 hours. Additionally, there is a rolling 24-hour total of each performance parameter.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is dsx3near, which corresponds to the DS3 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - %P-Bit (PES): Average percentage of P-bit errored seconds, which are those with one or more PCVs, one or more out-of-frame defects, or a detected incoming AIS
 - %P-Bit Severe (PSESs): Average percentage of P-bit Severely Errored Seconds, which are those with 44 or more PCVs, one or more out-of-Frame defects, or a detected incoming AIS
 - %Framing (SEFSs): Average percentage of Severely Errored Framing Seconds, which are those with one or more out-of-frame defects or a detected incoming AIS
 - %Line (LESs): Average percentage of Line Errored Seconds, which are those in which one or more CVs occurred or one or more LOS defects was detected
 - %C-Bit (CESs): Average percentage of C-bit Errored Seconds, which are those with one or more CCVs, one or more out-of-frame defects, or a detected incoming AIS. This parameter is only for the SYNTRAN and C-bit Parity DS3 applications.
 - %C-Bit Severe (CSESs): Average percentage of C-bit Severely Errored Seconds, which are those with 44 or more CCVs, one or more out-of-Frame defects, or a detected incoming AIS. This parameter is only for the SYNTRAN and C-bit Parity DS3 applications.
- Styles: This view can be displayed as a line chart, bar chart, stacked bar chart, stacked area chart, or table.
- Standard NetVoyant reports: This view is included in the [WAN Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the WAN Group Comparison report.

Top Deviation From Norm - T1 Unavailable/Errored Seconds

Displays the amount of unavailable or errored time for those T1 interfaces in a reporting group that have the highest deviation from the 30-day rolling baseline value for unavailable and errored time. This view provides insight into areas experiencing rapid change.

Top Deviation from Normal views compare actual values (values during the selected period) to a calculated “normal” value and display those values that have deviated the most from that “normal” value. The “normal” values are calculated as averages using the past 30 days of baselines (generated for expressions as configured in the NetVoyant console). When you select a different period for a report, the “normal” is calculated differently. However, all are averages based on the hourly rollup values.

Name	Metric	Normal	Actual	Deviation (%)
nclab_rtr_01 - T1 0/1/0	DS1 Errored Seconds	3 hrs 7 min	0 sec	-100.0
nclab_rtr_01 - T1 0/1/0	DS1 Unavailable Seconds	111 days 21 hrs 39 min	29 days 1 hr 30 min	-74.0

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is dsx1near, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: DS1 Unavailable Seconds (UASs) or DS1 Errored seconds (ESs)
 - Normal: Normal value calculated from a 30-day rolling baseline
 - Actual: Value over the selected period
 - Deviation (%): Actual value calculated as a percentage above or below the normal value
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Deviation from Normal Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Deviation from Normal report.

Top Deviation From Norm - T3 Unavailable Seconds

Displays the amount of unavailable time for those T3 circuits/interfaces in a reporting group that have the highest deviation from the 30-day rolling baseline value for unavailable and errored time. This view provides insight into areas experiencing rapid change.

Top Deviation from Normal views compare actual values (values during the selected period) to a calculated “normal” value and display those values that have deviated the most from that “normal” value. The “normal” values are calculated as averages using the past 30 days of baselines (generated for expressions as configured in the NetVoyant console). When you select a different period for a report, the “normal” is calculated differently. However, all are averages based on the hourly rollup values.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is dsx3near, which corresponds to the DS3 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: DS3 Unavailable Seconds (UASs)

- Normal: Normal value calculated from a 30-day rolling baseline
- Actual: Value over the selected period
- Deviation (%): Actual value calculated as a percentage above or below the normal value
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Deviation from Normal Report](#).

Top Projections - T1

Displays 30, 60, and 90-day projections for unavailable and errored seconds for those T1 interfaces in the selected reporting group with the highest unavailable and errored seconds growth rates.

Top Projections - T1		27 Jul 2009 - 26 Oct 2009 CDT				
Name	Metric	Last 90 Days ▼	30 Days	60 Days	90 Days	
QARouter-2620-4.QA.local - Se0/0	DS1 Unavailable Seconds	22 hrs 37 min	23 hrs 43 min	1 day 10 min	1 day 37 min	
WANSuite Test Box - Network 1	DS1 Unavailable Seconds	21 hrs 28 min	13 hrs 25 min	10 hrs 53 min	8 hrs 21 min	
WANSuite Test Box - Network 2	DS1 Unavailable Seconds	21 hrs 28 min	13 hrs 25 min	10 hrs 53 min	8 hrs 21 min	
Device13 - Interface223	DS1 Unavailable Seconds	5 hrs 39 min	4 hrs 23 min	3 hrs 43 min	3 hrs 4 min	
Device13 - Interface223	DS1 Errored Seconds	5 hrs 39 min	4 hrs 23 min	3 hrs 43 min	3 hrs 4 min	
Device13 - Interface222	DS1 Unavailable Seconds	5 hrs 37 min	4 hrs 22 min	3 hrs 42 min	3 hrs 3 min	
Device13 - Interface222	DS1 Errored Seconds	5 hrs 37 min	4 hrs 22 min	3 hrs 42 min	3 hrs 3 min	
Device13 - Interface221	DS1 Unavailable Seconds	5 hrs 36 min	4 hrs 21 min	3 hrs 41 min	3 hrs 2 min	
Device13 - Interface221	DS1 Errored Seconds	5 hrs 36 min	4 hrs 21 min	3 hrs 41 min	3 hrs 2 min	
Device13 - Interface220	DS1 Unavailable Seconds	5 hrs 34 min	4 hrs 19 min	3 hrs 40 min	3 hrs 1 min	

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `dsx1near`, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: DS1 Unavailable Seconds (UASs) or DS1 Errored seconds (ESs)
 - Last 90 Days: The growth rate calculated over the preceding 90 days
 - 30 Days: The projected increase 30 days from now
 - 60 Days: The projected increase 60 days from now
 - 90 Days: The projected increase 90 days from now
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Projections Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Projections report.

Top Projections - T3

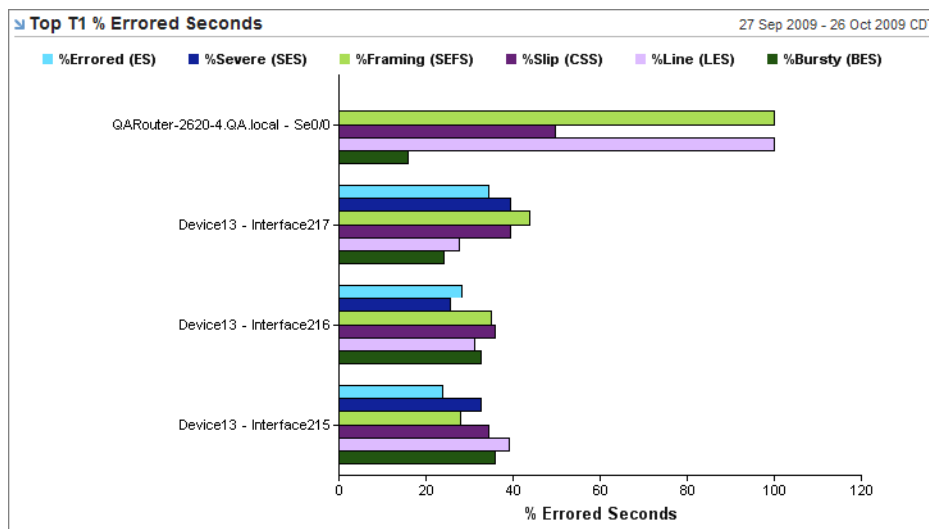
Displays 30, 60, and 90-day projections for unavailable seconds for those T3 circuits and interfaces in a reporting group with the highest unavailable seconds growth rates.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is `dsx3near`, which corresponds to the DS3 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Metric: DS3 Unavailable Seconds (UASs)

- Last 90 Days: The growth rate calculated over the preceding 90 days
- 30 Days: The projected increase 30 days from now
- 60 Days: The projected increase 60 days from now
- 90 Days: The projected increase 90 days from now
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is included in the [Top Projections Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Top Projections report.

Top T1 % Errored Seconds

Displays the errored seconds rates for those T1 circuits and interfaces in a reporting group with the highest error rates during a selected period.



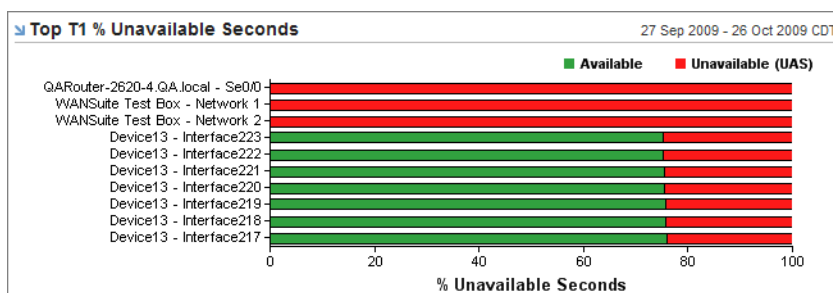
- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is dsx1near, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - %Errored (ES): Percentage of errored seconds, which are those with one or more Path Code violations, one or more out-of-frame defects, one or more controlled slip events, or a detected AIS defect.
 - %Severe (SES): Percentage of severely errored seconds, which are those with 320 or more Path Code violation error events, one or more out-of-frame defects, or a detected AIS defect.
 - %Framing (SEFS): Percentage of severely errored framing seconds, which are those with one or more out-of-frame defects or a detected AIS defect.
 - %Slip (CSS): Percentage of controlled slip seconds, which are one-second intervals containing one or more controlled slips.
 - %Line (LES): Percentage of line errored seconds, which are those in which one or more Line Code violation error events were detected.
 - %Bursty (BES): Percentage of bursty errored seconds (also known as Errored Second type B), which are those with fewer than 320 and more than one Path Coding violation error events, no

severely errored frame defects and no detected incoming AIS defects. Controlled slips are not included in this parameter.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Top Issues report.

Top T1 % Unavailable Seconds

Displays the availability and unavailability percentages for those T1 circuits and interfaces in a reporting group or managed object with the highest unavailability rates during a selected period.



- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is dsx1near, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Available: The availability percentage
 - Unavailable (UAS): The unavailability percentage
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Top Issues report.

Top T1 Circuits

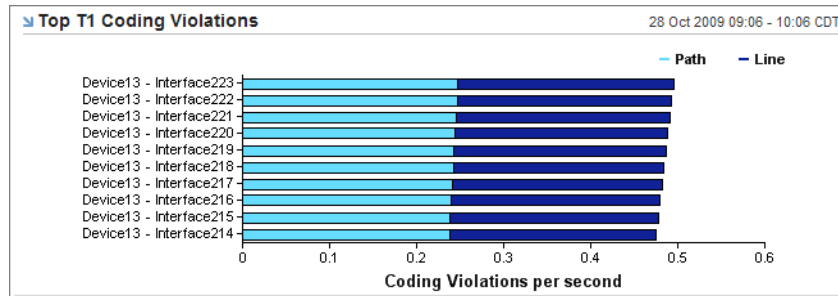
Displays the availability and error rates on those T1 circuits in a reporting group or managed object with the least availability during the selected period.

Top T1 Circuits								28 Oct 2009 09:06 - 10:06 CDT	
Name	%Unavail (UAS)	%Errored (ES)	%Severe (SES)	%Framing (SEFS)	%Slip (CSS)	%Line (LES)	%Bursty (BES)		
WANSuite Test Box - Network 2	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
WANSuite Test Box - Network 1	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
QARouter-2620-4.QA.local - Se0/0	100.00%	0.00%	0.00%	100.00%	49.33%	100.00%	0.00%		
Device13 - Interface223	24.78%	24.78%	24.78%	24.78%	24.78%	24.78%	24.78%		
Device13 - Interface222	24.67%	24.67%	24.67%	24.67%	24.67%	24.67%	24.67%		
Device13 - Interface221	24.56%	24.56%	24.56%	24.56%	24.56%	24.56%	24.56%		
Device13 - Interface220	24.44%	24.44%	24.44%	24.44%	24.44%	24.44%	24.44%		
Device13 - Interface219	24.33%	24.33%	24.33%	24.33%	24.33%	24.33%	24.33%		
Device13 - Interface218	24.22%	24.22%	24.22%	24.22%	24.22%	24.22%	24.22%		
Device13 - Interface217	24.11%	24.11%	24.11%	24.11%	24.11%	24.11%	24.11%		

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is dsx1near, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - %Unavail (UAS): Percentage of unavailable seconds, which is calculated by counting the number of seconds that the interface is unavailable. The DS1 interface is said to be unavailable from the onset of 10 contiguous SESSs, or the onset of the condition leading to a failure.
 - %Errored (ES): Percentage of errored seconds, which are those with one or more Path Code violations, one or more out-of-frame defects, one or more controlled slip events, or a detected AIS defect.
 - %Severe (SES): Percentage of severely errored seconds, which are those with 320 or more Path Code violation error events, one or more out-of-frame defects, or a detected AIS defect.
 - %Framing (SEFS): Percentage of severely errored framing seconds, which are those with one or more out-of-frame defects or a detected AIS defect.
 - %Slip (CSS): Percentage of controlled slip seconds, which are one-second intervals containing one or more controlled slips.
 - %Line (LES): Percentage of line errored seconds, which are those in which one or more Line Code violation error events were detected.
 - %Bursty (BES): Percentage of bursty errored seconds (also known as Errored Second type B), which are those with fewer than 320 and more than one Path Coding violation error events, no severely errored frame defects and no detected incoming AIS defects (controlled slips not included).
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Operations Summary Report](#), [WAN Summary Report](#), [Device Capabilities Report](#), and [Router Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Circuits report, the Enterprise Summary report, and the WAN Summary report.

Top T1 Coding Violations

Displays the frequency of path and line coding violations on those T1 circuits and interfaces in a reporting group or managed object with the highest path coding violation rates during a selected period.



- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is dsx1near, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Path: Number of path coding violations per second, which are frame synchronization bit errors in the D4 and E1-noCRC formats or CRC errors in the ESF and E1-CRC formats
 - Line: Number of line coding violations per second, which are occurrences of either a Bipolar Violation (BPV) or Excessive Zeroes (EXZ) Error Event.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top T1 Interfaces

Displays the inbound and outbound usage and the inbound and outbound observed rates on those T1 interfaces in a reporting group or managed object with the highest usage during a selected period.

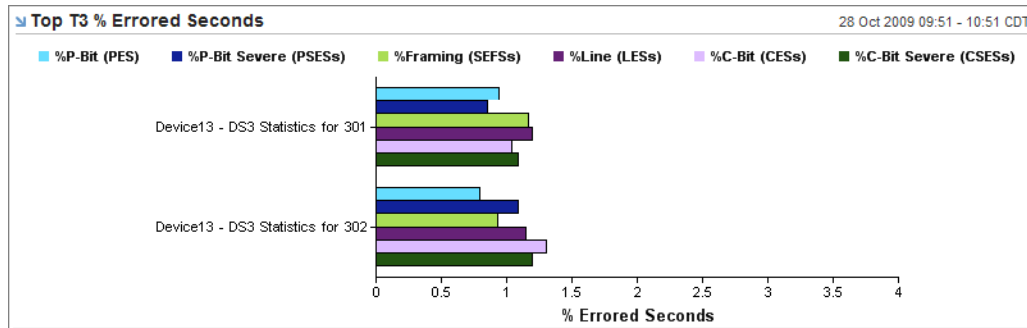
The table displays interface statistics for Device13 - Interface201. The columns are Name, Util In, Util Out, Rate In, and Rate Out. The data is as follows:

Name	Util In	Util Out	Rate In	Rate Out
Device13 - Interface201	0.00%	0.00%	320 bps	320 bps

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Util In: The maximum inbound usage percentage value observed
 - Util Out: The maximum outbound usage percentage value observed
 - Rate In: The maximum inbound rate (bps) value observed
 - Rate Out: The maximum outbound rate (bps) value observed
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [WAN Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the WAN Summary report.

Top T3 % Errored Seconds

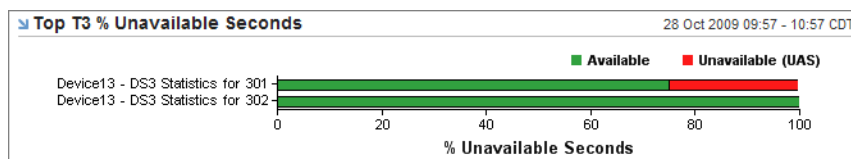
Displays the error type rates on those T3 circuits and interfaces in a reporting group or managed object with the highest P-bit error rate during a selected period.



- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is dsx3near, which corresponds to the DS3 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - %P-Bit (PES): Average percentage of P-bit errored seconds, which are those with one or more PCVs, one or more out-of-frame defects, or a detected incoming AIS.
 - %P-Bit Severe (PSEs): Average percentage of P-bit Severely Errored Seconds, which are those with 44 or more PCVs, one or more out-of-Frame defects, or a detected incoming AIS.
 - %Framing (SEFs): Average percentage of Severely Errored Framing Seconds, which are those with one or more out-of-frame defects or a detected incoming AIS.
 - %Line (LEs): Average percentage of Line Errored Seconds, which are those in which one or more CVs occurred or one or more LOS defects was detected.
 - %C-Bit (CESs): Average percentage of C-bit Errored Seconds, which are those with one or more CCVs, one or more out-of-frame defects, or a detected incoming AIS.
 - This parameter is only for the SYNTRAN and C-bit Parity DS3 applications.
 - %C-Bit Severe (CSEs): Average percentage of C-bit Severely Errored Seconds, which are those with 44 or more CCVs, one or more out-of-Frame defects, or a detected incoming AIS. This parameter is only for the SYNTRAN and C-bit Parity DS3 applications.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.
- Standard NetQoS Performance Center reports: This view is included in the Top Issues report.

Top T3 % Unavailable Seconds

Displays the availability and unavailability percentages for those T3 circuits and interfaces in a reporting group or managed object with the highest unavailability rates during a selected period.



- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is `dsx3near`, which corresponds to the DS3 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Available: The availability percentage
 - Unavailable (UAS): The unavailability percentage
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top T3 Circuits

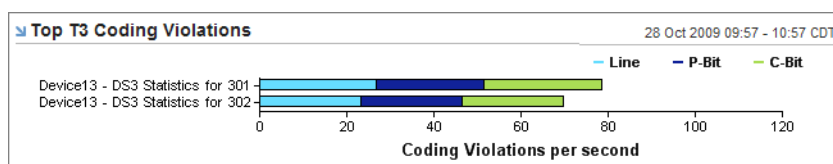
Displays the unavailability and error rates on those T3 circuits in a reporting group or managed object with the least availability during the selected period.

Name	%Unavail (UAS)	%P-Bit (PES)	%P-Bit Severe (PSEs)	%Framing (SEFSs)	%Line (LESs)	%C-Bit (CESs)	%C-Bit Severe (CSEs)
Device13 - DS3 Statistics for 301	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Device13 - DS3 Statistics for 302	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is `dsx3near`, which corresponds to the DS3 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - %Unavail (UAS): Percentage of unavailable seconds, which is calculated by counting the number of seconds that the interface is unavailable. The DS3 interface is said to be unavailable from the onset of 10 contiguous PSEs, or the onset of the condition leading to a failure.
 - %P-Bit (PES): Average percentage of P-bit errored seconds, which are those with one or more PCVs, one or more out-of-frame defects, or a detected incoming AIS.
 - %P-Bit Severe (PSEs): Average percentage of P-bit Severely Errored Seconds, which are those with 44 or more PCVs, one or more out-of-Frame defects, or a detected incoming AIS.
 - %Framing (SEFSs): Average percentage of Severely Errored Framing Seconds, which are those with one or more out-of-frame defects or a detected incoming AIS.
 - %Line (LESs): Average percentage of Line Errored Seconds, which are those in which one or more CVs occurred or one or more LOS defects was detected.
 - %C-Bit (CESs): Average percentage of C-bit Errored Seconds, which are those with one or more CCVs, one or more out-of-frame defects, or a detected incoming AIS.
 - This parameter is only for the SYNTRAN and C-bit Parity DS3 applications.
 - %C-Bit Severe (CSEs): Average percentage of C-bit Severely Errored Seconds, which are those with 44 or more CCVs, one or more out-of-Frame defects, or a detected incoming AIS.
 - This parameter is only for the SYNTRAN and C-bit Parity DS3 applications.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [Operations Summary Report](#), [WAN Summary Report](#), [Device Capabilities Report](#), and [Router Capabilities Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Router Circuits report, the Enterprise Summary report, and the WAN Summary report.

Top T3 Coding Violations

Displays the frequency of line, P-bit, and C-bit coding violation rates on T3 circuits and interfaces in a reporting group or managed object with the highest coding violation rates during a selected period.



- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is dsx3near, which corresponds to the DS3 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Line: Number of line coding violations, which are occurrences of either a Bipolar Violation (BPV) or Excessive Zeroes (EXZ) Error Event.
 - P-bit: Number of P-bit coding violations (parity error events), which are occurrences of a received P-bit code on the DS3 M-frame that is not identical to the corresponding locally-calculated code.
 - C-bit: Number of C-bit coding violations, which are coding violations reported by the C-bits. For C-bit parity, it is the number of CP-bit parity errors occurring in the accumulation interval. For SYNTRAN, it is the number of CRC-9 errors occurring in the accumulation interval.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top T3 Interfaces

Displays the inbound and outbound usage and the inbound and outbound observed rates on T3 interfaces in a reporting group or managed object with the highest usage during a selected period.

The figure is a table titled "Top T3 Interfaces" with a timestamp of "28 Oct 2009 09:06 - 10:06 CDT". The table has five columns: Name, Util In, Util Out, Rate In, and Rate Out. The first row shows data for "Device13 - Interface201". Below the table is a search bar and a "Show Top: 10" dropdown menu.

Name	Util In	Util Out	Rate In	Rate Out
Device13 - Interface201	0.00%	0.00%	320 bps	320 bps

- Context: This view requires a selected reporting group, device, or router to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Util In: Maximum observed inbound usage percentage
 - Util Out: Maximum observed outbound usage percentage
 - Rate In: Maximum observed inbound rate (bps)
 - Rate Out: Maximum observed outbound rate (bps)
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [WAN Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the WAN Summary report.

Top Threshold Violations - T1 Unavailable Seconds

Displays unavailable seconds threshold alarms that occurred on T1 circuits/interfaces in a reporting group during the selected period. Values that exceeded threshold display as red values.

The view also displays the percent of time (Violation Duration) that the value was over threshold and the number of unique threshold crossing events (Number of Unique Violations) observed during the selected period.

Note: Place the pointer over the value to display the threshold settings for the metric.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is dsx1near, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Unavail (UAS): Number of unavailable seconds. The DS1 interface is said to be unavailable from the onset of 10 contiguous SESs, or the onset of the condition leading to a failure.
 - Errored (ES): Number of errored seconds, which are those with one or more Path Code violations, one or more out-of-frame defects, one or more controlled slip events, or a detected AIS defect.
 - Violation Duration (%): Total threshold event duration for the reporting period, as a percentage
 - Number of Unique Violations: Number of unique threshold events
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top Threshold Violations - T3 Unavailable Seconds

Displays unavailable seconds threshold alarms that occurred on T3 circuits and interfaces in a reporting group during the selected period. Values that exceed the threshold display as red values.

The view also displays the percent of time (Violation Duration) that the value was over threshold and the number of unique threshold crossing events (Number of Unique Violations) observed during the selected period.

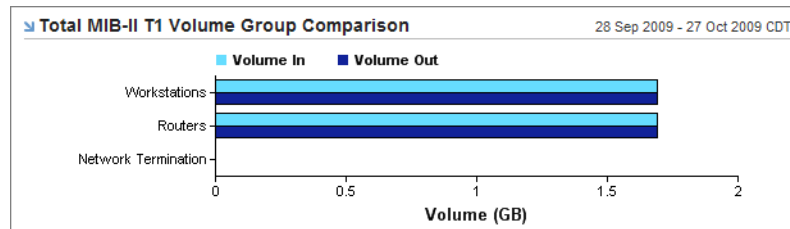
Note: Place the pointer over the value to display the threshold settings for the metric.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is dsx1near, which corresponds to the DS1 15-minute Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Unavail (UAS): Number of unavailable seconds. The DS3 interface is said to be unavailable from the onset of 10 contiguous PSEs, or the onset of the condition leading to a failure.
 - Violation Duration (%): Total threshold event duration for the reporting period, as a percentage
 - Number of Unique Violations: Number of unique threshold events
- Styles: This view can be displayed as a table only.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Total MIB-II T1 Volume Group Comparison

Displays the inbound and outbound volume, by sub-group, on T1 interfaces in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Volume In: Total volume of inbound traffic on the T1 interfaces
 - Volume Out: Total volume of outbound traffic on the T1 interfaces
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [WAN Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the WAN Group Comparison report.

Total MIB-II T3 Volume Group Comparison

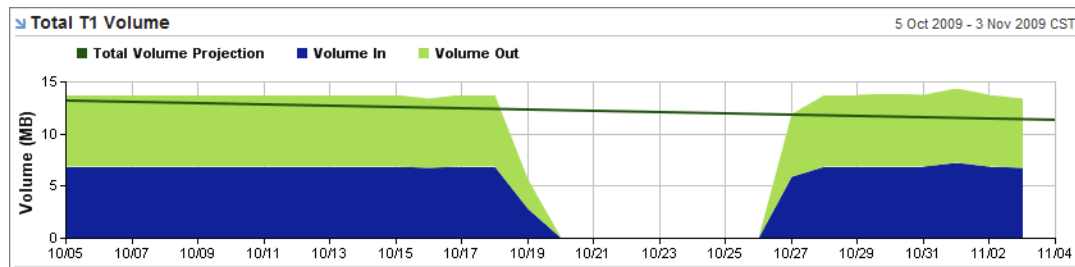
Displays the inbound and outbound volume, by sub-group, on T3 interfaces in a reporting group during the selected period.

Group Comparison views provide meaningful comparisons of performance by sub-group. Because groups are typically organized to match your network organization, these views can provide insights into how specific parts of your network compare to others.

- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Volume In
 - Total volume of inbound traffic on the T3 interfaces
 - Volume Out
 - Total volume of outbound traffic on the T3 interfaces
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [WAN Group Comparison Report](#).
- Standard NetQoS Performance Center reports: This view is included in the WAN Group Comparison report.

Total T1 Volume

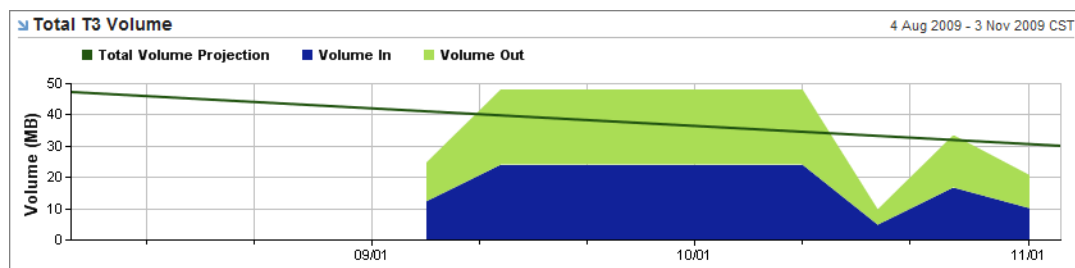
Displays the average inbound and outbound volumes for T1 interfaces in a reporting group over a selected period compared to the total volume projection.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Volume In: Total volume of inbound traffic on the T1 interfaces
 - Volume Out: Total volume of outbound traffic on the T1 interfaces
- Styles: This view can be displayed as a bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the volume projection is not displayed.
- Standard NetVoyant reports: This view is included in the [WAN Summary Report](#).
- Standard NetQoS Performance Center reports: This view is included in the WAN Summary report.

Total T3 Volume

Displays the average inbound and outbound volumes for T3 interfaces in a reporting group over a selected period compared to the total volume projection.



- Context: This view requires a selected reporting group to be displayed.
- Data: The metric used to render this view is ifstats, which corresponds to the Interface Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Volume In: Total volume of inbound traffic on the T3 interfaces
 - Volume Out: Total volume of outbound traffic on the T3 interfaces
- Styles: This view can be displayed as a bar chart, stacked bar chart, stacked area chart, or table. When you display this view as a table, the volume projection is not displayed.
- Standard NetVoyant reports: This view is included in the [WAN Summary Report](#).

- Standard NetQoS Performance Center reports: This view is included in the WAN Summary report.

VoIP (IP SLA) VIEWS

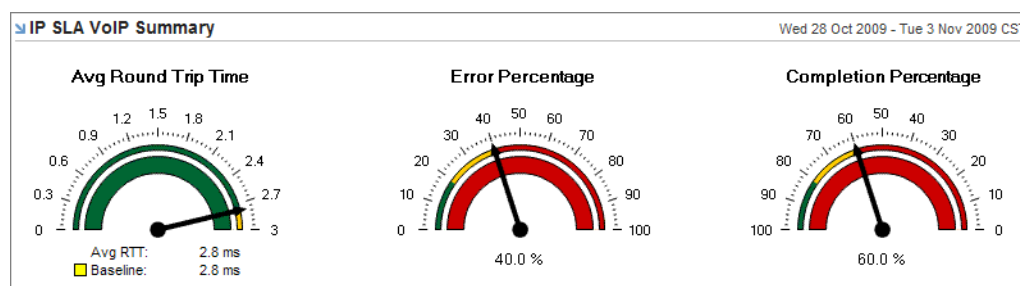
The following topics describe the views related to VoIP data that you can add to your report pages. This information includes the view styles available for each view, the dataset used to render the view, and the standard report pages that include the view.

Note: When there are no standard report pages listed for a view, you must add that view to a report page to display it in the NetVoyant user interface.

IP SLA VoIP Summary

Displays the average round-trip time, error percentage, and completion percentage compared to a baseline for all VoIP IP SLA operations in a reporting group or managed object during the selected period.

Gauge views are designed to provide a high-level indication of desirable and undesirable numbers according to baselines and thresholds.



- Context: This view requires a selected reporting group, router, or switch to be displayed.
- This is a summary view derived from multiple NetVoyant datasets and cannot be edited in the Custom View Wizard.
- Styles: This view can be displayed as gauge chart only.
- Standard NetVoyant reports: This view is included in the [VoIP Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Voice Over IP report.

Top Jitter Operations

Displays the average source-to-destination and destination-to-source jitter values and the average round trip time for those IP SLA operations in a reporting group or managed object with the highest average source-to-destination jitter values during the selected period.

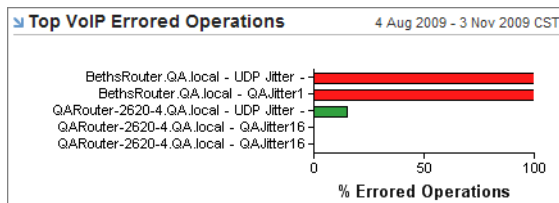
Jitter is the statistical term for variations in delay among the arrival times of packets in the same stream.

Top Jitter Operations						Wed 28 Oct 2009 - Tue 3 Nov 2009 CST
Name	Source	Destination	Jitter Src-Dst	Jitter Dst-Src	RTT	
QARouter-2620-4.QA.local - QAJitter16	QARouter-2620-4.QA.local	192.168.11.252	1.0 ms	1.1 ms	3.3 ms	
BethsRouter.QA.local - QAJitter1	BethsRouter.QA.local	192.168.11.252	1.0 ms	1.1 ms	2.5 ms	
BethsRouter.QA.local - UDP Jitter - 10.0.7.9 - 10.0.7.4	BethsRouter.QA.local	10.0.7.4:5000	1.0 ms	1.0 ms	2.0 ms	
QARouter-2620-4.QA.local - QAJitter16	QARouter-2620-4.QA.local	192.168.11.252	0.6 ms	0.8 ms	3.3 ms	

- Context: This view requires a selected reporting group, device, router, or switch to be displayed.
- Data: The metric used to render this view is `rttjitter`, which corresponds to the IPSLA Jitter Statistics dataset in NetVoyant. The view includes data for the following expressions:
 - Source: The source address for the IP SLA jitter operation
 - Destination: The target address for the IP SLA jitter operation
 - Jitter Src-Dst: The average jitter values (ms) from packets sent from source to destination
 - Jitter Dst-Src: The average jitter values (ms) from packets sent from destination to source
 - RTT: The average round trip time for the operation
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is not included in the standard NetVoyant reports, but you can add it to a report page.

Top VoIP Errored Operations

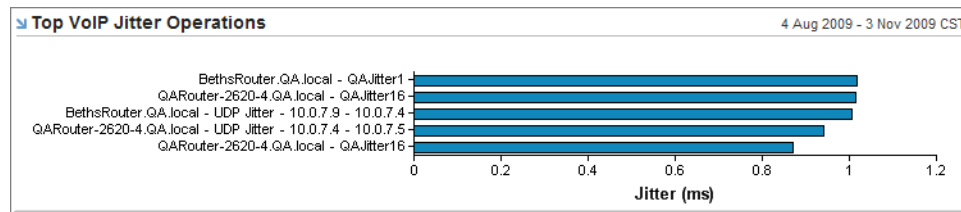
Compares the percentage of errored operations for those VoIP IP SLA operations in a reporting group or managed object that experienced the most errors during a selected period. Errored operations include lost packets, missing packets, late packets, busies, and sequence errors.



- Context: This view requires a selected reporting group, router, or switch to be displayed.
- Data: The metric used to render this view is `rttjitter`, which corresponds to the IPSLA Jitter Statistics dataset in NetVoyant. The view includes data for the following expression:
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [VoIP Report](#), which is a standard NetVoyant report.
- Standard NetQoS Performance Center reports: This view is included in the Voice Over IP report.

Top VoIP Jitter Operations

Displays the average positive jitter values for those IP SLA operations in a reporting group or managed object with the highest jitter during the selected period.



- Context: This view requires a selected reporting group, device, router, or switch to be displayed.
- Data: The metric used to render this view is `rttjitter`, which corresponds to the IPSLA Jitter Statistics dataset in NetVoyant. The view includes data for the following expression:
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [IP SLA Report](#) and [VoIP Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Voice Over IP report.

Top VoIP Over Threshold

Displays the percentage of jitter over threshold for those VoIP IP SLA operations in a reporting group or managed object that most exceeded a threshold value during a selected period.

- Context: This view requires a selected reporting group, router, or switch to be displayed.
- Data: The metric used to render this view is `rttjitter`, which corresponds to the IPSLA Jitter Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [VoIP Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Voice Over IP report.

Top VoIP RTT Deviation from Norm

Displays details for those VoIP IP SLA operations in a reporting group or managed object that have the highest deviation from the 30-day rolling baseline value for round-trip time. This view provides insight into areas experiencing rapid change.

Top Deviation from Normal views compare actual values (values during the selected period) to a calculated *normal* value and display those values that have deviated the most from that normal value. The normal values are calculated as averages using the past 30 days of baselines (generated for expressions as configured in the NetVoyant console). When you select a different period for a report, the normal is calculated differently. However, all are averages based on the hourly rollup values.

Top VoIP RTT Deviation From Norm 4 Aug 2009 - 3 Nov 2009 CST

Name	Src	Dst	Normal	Actual	Deviation (%)
BethsRouter.QA.local - UDP Jitter - 10.0.7.9 - 10.0.7.4	BethsRouter.QA.local	10.0.7.4:5000	1.9 ms	2.0 ms	1.2
BethsRouter.QA.local - QAJitter1	BethsRouter.QA.local	192.168.11.252:50000	2.5 ms	2.5 ms	1.1
QARouter-2620-4.QA.local - QAJitter16	QARouter-2620-4.QA.local	192.168.11.252:50000	3.3 ms	3.3 ms	0.4
QARouter-2620-4.QA.local - UDP Jitter - 10.0.7.4 - 10.0.7.5	QARouter-2620-4.QA.local	10.0.7.5:5000	3.1 ms	3.1 ms	-0.3
QARouter-2620-4.QA.local - QAJitter16	QARouter-2620-4.QA.local	192.168.11.252:50000	3.3 ms	3.3 ms	0.1

Show Top: 10

- Context: This view requires a selected reporting group, router, or switch to be displayed.
- Data: The metrics used to render this view are rttstats and rttjitter, which correspond to the IPSLA Statistics and IPSLA Jitter Statistics datasets in NetVoyant.
 - Src: The source address for the IP SLA jitter operation
 - Dst: The target address for the IP SLA jitter operation
 - Normal: Normal value calculated from a 30-day rolling baseline
 - Actual: Value over the selected period
 - Deviation (%): Actual value calculated as a percentage above or below the normal value
- To filter the data to display only those operations of a specific type, click the blue arrow at the upper-left corner of the view to access the view menu and select Edit. In the Select Operation Filter dialog, choose an IP SLA operation type from the Select Operation Filter list and click OK.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [VoIP Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Voice Over IP report.

VoIP Operations by Router

Displays average round trip time, error rate, and completion rate for VoIP IP SLA operations by router in a reporting group during the selected period.

VoIP Operations by Router 4 Aug 2009 - 3 Nov 2009 CST

VoIP Jitter

Name	Avg RTT (ms)	Error Rate (%)	Comp Rate (%)	Count
QARouter-2620-4.QA.local	3.2 ms	5.043%	94.957%	3
BethsRouter.QA.local	2.3 ms	99.982%	0.018%	2

1 of 1 Max Per Page: 10

- Context: This view requires a selected reporting group to be displayed.
- Data: The metrics used to render this view are rttstats and rttjitter, which correspond to the IPSLA Statistics and IPSLA Jitter Statistics datasets in NetVoyant.
 - Avg RTT (ms): The average round trip time for the operation
 - Error Rate (%): Percentage of errors/initiations
 - Comp Rate (%): Percentage of completions/initiations
 - Count: Number of operations for the router

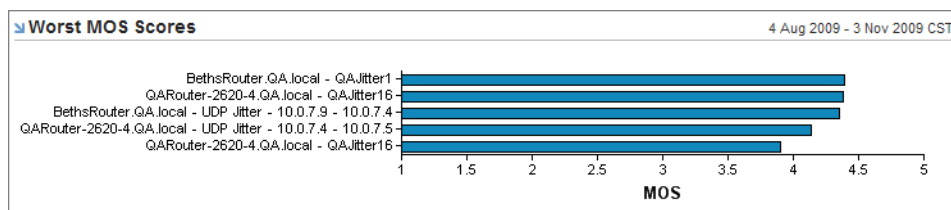
To filter the data to display only those operations of a specific type, click the blue arrow at the upper-left corner of the view to access the view menu and select Edit. In the Select Operation Filter dialog, choose an IP SLA operation type from the Select Operation Filter list and click OK.

- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [VoIP Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Voice Over IP report.

Worst MOS Scores

Displays the Mean Opinion Score (MOS), which is a measure of user perception based on the codec for voice packet round trip, for the IP SLA VoIP/jitter operations in the selected reporting group or managed object with the worst MOS values during the elected period.

MOS is an industry standard for gauging call quality by estimating the impact of various impairments to the quality of the voice signal on the listener's likely perception of the call's quality. The MOS scale ranges from 5.00 to 1.00, with 5.00 representing the highest quality—that is, a score representing an audio signal free from impairments—and 1.00 representing the lowest quality. The average MOS value is the average MOS listening quality (LQK) score observed for the entire voice stream.



- Context: This view requires a selected reporting group, router, or switch to be displayed.
- Data: The metric used to render this view is rttjitter, which corresponds to the IPSLA Jitter Statistics dataset in NetVoyant.
- Styles: This view can be displayed as a bar chart, stacked bar chart, or table.
- Standard NetVoyant reports: This view is included in the [VoIP Report](#).
- Standard NetQoS Performance Center reports: This view is included in the Voice Over IP report.

Integrated Reporting in NetQoS Performance Center

Many of the built-in NetVoyant views are displayed in NetQoS Performance Center. In addition, groups of devices, user accounts, and their associated roles can be created and managed in NetQoS Performance Center when NetVoyant is registered as a data source. When CA NetQoS Event Manager is also registered as a data source, it collects events, alerts, traps, and log streams from NetVoyant, and other data sources, and displays them in a single, correlated list, and provides separate data views within NetQoS Performance Center.

This appendix explains the process for registering NetVoyant with NetQoS Performance Center and describes the differences in the displayed views when rendered in the NetQoS Performance Center console. It also explains the differences in event and alarm status between Event Manager and NetVoyant when both are added as a data source in a NetQoS Performance Center installation.

When NetVoyant is registered as a data source with NetQoS Performance Center, SNMP profiles and reporting groups are also synchronized. For more information about group management and SNMP profiles in NetVoyant, see the information about groups and SNMP profiles in the *NetVoyant Administrator Guide*.

This appendix covers the following topics:

- “About NetQoS Performance Center” on page 478
- “Integration with NetQoS Performance Center” on page 481
- “Event Manager Integration” on page 483

ABOUT NETQoS PERFORMANCE CENTER

CA NetQoS Performance Center is a web-based tool used to access informative data from supported CA NetQoS products in various formats so that you can effectively manage your networks, applications, and devices. By combining different types of analytical data for display in one place, NetQoS Performance Center offers a unique perspective for executives and for Engineering, Operations, and other groups who want to troubleshoot and maintain current resources and plan for future initiatives.

NetQoS Performance Center helps you continuously monitor the end-to-end performance of applications across the network. Knowing what constitutes “normal” application performance helps you validate the impact of planned changes such as QoS policy implementation and application rollouts. NetQoS Performance Center helps you to determine which applications and devices use network bandwidth, who is using the bandwidth, and when. It facilitates troubleshooting by helping you identify inappropriate application usage and anomalous traffic volumes. Finally, NetQoS Performance Center helps you monitor and manage device performance, which means that you can manage capacity issues specific to individual devices such as routers and servers and diagnose availability problems.

Supported Data Sources

Integrated performance data is critical for effectively managing network and application performance. NetQoS Performance Center can display data from several underlying CA NetQoS products in unique combinations to help solve specific problems. These underlying products are called *data sources*. The following data sources are fully supported by NetQoS Performance Center:

Device	Description of data
CA NetQoS SuperAgent	Collected from end-to-end network, application, and server performance monitoring.
CA NetQoS ReporterAnalyzer	Network traffic analysis data collected from NetFlow-enabled routers.
CA NetQoS NetVoyant	Device-specific management and monitoring data collected from SNMP polling.
CA NetQoS Anomaly Detector	Identifies and alerts on abnormally high flow and volume sources that can indicate issues in the system.
CA NetQoS Unified Communications Monitor	Collects data for network-based voice and video monitoring and tracks the quality of end-user experience, provide alerts on performance problems, and isolate performance issues to speed troubleshooting and MTTR.
Integrated Poller	This is a data source module included with the NetQoS Performance Center that performs limited, device-specific monitoring to users who do not have NetVoyant installed.

Other data sources from third-party platforms are partially supported by means of the data export feature referred to as *inbound integration*.

Using NetQoS Performance Center

The NetQoS Performance Center provides documentation, including online Help, to assist you in using the product. However, for purposes of this appendix, it is helpful to understand a few characteristics of the user interface and some key terms.

Like NetVoyant, NetQoS Performance Center uses the concepts of report *pages* and *views* of data within those pages. Views, or charts and graphs of data from selected data sources, are displayed on pages, with multiple views on each page. You can change the views contained on a page.

NetQoS Performance Center does not collect or analyze data. CA NetQoS products and third-party monitoring platforms provide data, either by direct support in NetQoS Performance Center or by exporting their data in a supported format, to be displayed in views on NetQoS Performance Center report pages.

When your user account has the appropriate permissions, you can access data source devices and interfaces from the NetQoS Performance Center console by drilling into a more detailed view or by clicking a link to the data source interface or device.

Most view data is nested in *tiers*, which let you drill down from overviews to more detailed data. For example, when a view shows data for a list of routers, you can click a router name to view more information about that router. Each tier provides greater detail. NetQoS Performance Center offers two main types of tier:

- overviews comparing servers, routers, interfaces, or protocols in one view
- details of a particular item in one view

The data displayed in a particular view is also dependent on the *context*. A context narrows the scope of the view data. When you select a context for a view, the data shown in the view is selected with respect to that context. For example, when you choose a server group, the data displayed in the views that you select within that context is limited to that server group.

Centralized User Management

NetVoyant integration with the NetQoS Performance Center is similar to that provided by other CA NetQoS data sources. In addition to the shared data views and seamless drill-in path discussed in [“Integration with NetQoS Performance Center” on page 481](#), NetQoS Performance Center also provides centralized management of user accounts, permissions, and groups among all CA NetQoS data sources. Centralizing user account and group management tasks makes it much easier to assign user access permissions and share information from different CA NetQoS data sources among IT teams.

To take advantage of the centralized management feature, you add the NetVoyant data source to NetQoS Performance Center. As the NetVoyant data source is contacted, it is also automatically registered with NetQoS Performance Center. Registration of a CA NetQoS data source allows NetQoS Performance Center to assume certain management tasks in that product and make them accessible to users with the appropriate administrative product privileges.

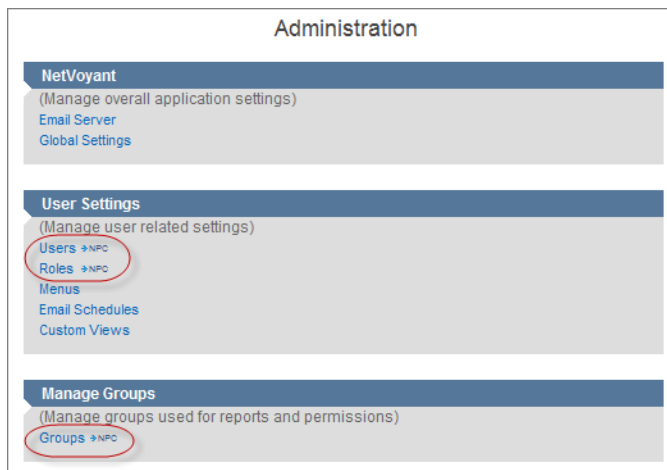
During the registration process, NetQoS Performance Center adds all of the defined user accounts, roles, reporting groups, and SNMP profiles already configured in NetVoyant.

Note: The registration process is sometimes referred to informally as “binding.”

Managing User Accounts and Roles

Before you register NetVoyant with NetQoS Performance Center, the Administration page allows the NetVoyant Administrator to view all the predefined and custom NetVoyant user accounts and roles, edit or delete those accounts and roles and their associated product privileges, or add new, custom users and roles.

When NetVoyant is registered and bound to a NetQoS Performance Center installation, user accounts and roles must be managed through the NetQoS Performance Center console. Clicking Users or Roles on the Administration page of NetVoyant automatically opens the User List page or Roles List page in NetQoS Performance Center.



All users and roles defined in the system, including those created in other CA NetQoS products that are registered with NetQoS Performance Center, are displayed on the NetVoyant User List and Role List Administration pages and can not be managed from those pages. Instead, the provided link opens the Administration page in NetQoS Performance Center where management tasks can be performed.

INTEGRATION WITH NETQoS PERFORMANCE CENTER

The integration features in NetQoS Performance Center let users with the appropriate permissions view data in NetVoyant and NetQoS Performance Center. Many of the standard report pages include default NetVoyant views, and many of these report pages combine views from multiple CA NetQoS data sources.

To view data from a CA NetQoS data source in NetQoS Performance Center, you must register the data source. Registration of multiple CA NetQoS data sources allows for a seamless presentation of the various types of data collected and managed by CA NetQoS network management products.

Adding the NetVoyant Data Source

To centralize the management of CA NetQoS SNMP profiles, reporting groups, user accounts, and roles and to access data collected by CA NetQoS data sources in NetQoS Performance Center, you must add each CA NetQoS data source to NetQoS Performance Center. The process of adding the data source automatically registers it and integrates user account and role management.

Note: NetQoS Performance Center can be bound to only one installation of NetVoyant.

Adding data sources requires the Administrator product privilege. First, log into NetQoS Performance Center with an Administrator account.

Follow these steps:

1. Click Admin on the NetQoS Performance Center main page.
The Administration page appears.
2. Click the Data Sources link in the NetQoS Settings section.
The Data Sources List displays the data sources already configured.
3. Click New.
4. Select NetVoyant from the Source Type list.
5. In the Host Name field, enter the host name of the computer where the NetVoyant database is installed (in a distributed system, the Master console, not a poller).
6. Select the appropriate Protocol and specify the Port for the NetQoS Performance Center web service to use to contact the corresponding NetVoyant web service.
HTTP over Port 80 is used. When Secure Communications is enabled in IIS for the NetVoyant Web Service site, select HTTPS and Port 443.
7. Supply a Display Name.
This is the name that is used to identify the data source. This field is populated with NetVoyant@<hostname>. However, you can specify an alternative display name for the NetVoyant data source.
8. Select the Enabled check box to disable a data source without unregistering it. When the box is cleared, no data is received from this data source.
9. Click Test.

NetQoS Performance Center attempts to contact the NetVoyant server. When contact is established, a message states, “Successfully connected to NetVoyant Web Service.”

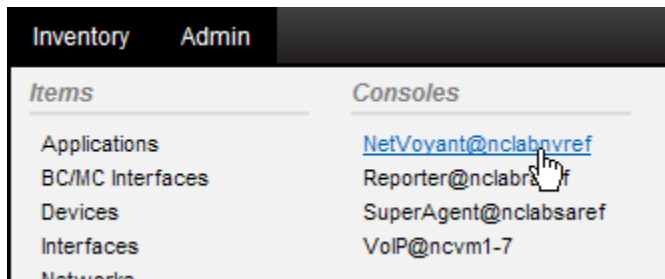
10. Click Save to save the data source.

The NetVoyant data source appears in the Configured Data Sources list.

Verifying the NetVoyant Data Source

When you add NetVoyant as a data source in NetQoS Performance Center, you can see it in the list of data sources. Pause the pointer over the Inventory menu. A NetVoyant data source appears in the Consoles list.

A link to the host name of the NetVoyant server provides access to the NetVoyant Login page.



Custom Reports in NetQoS Performance Center

NetQoS Performance Center provides a unique capability: it lets you combine metrics from different data sources in one page or report. Creating custom report pages by combining views of data from multiple data sources can help you make the most of the data that NetVoyant and other supported monitoring platforms can provide.

The following list provides just a few examples of useful report pages you can create from data views available in NetQoS Performance Center:

- **Application Performance:** You can add one or more NetVoyant views to a page containing views of application performance from SuperAgent and see whether device deployment is affecting the performance of existing network applications.
- **Device Performance:** Similarly, you can add selected views from NetVoyant to the VoIP Dashboard containing views from Unified Communication Monitor to provide insight into problems at a media device.
- **Troubleshooting Schemes:** Depending on the other data sources you have installed, NetQoS Performance Center lets you combine end-to-end performance, traffic analysis, VoIP and video call performance, and device performance data on a single report page. Such reports can be extremely valuable for an operations team, who can use the information to quickly identify issues, eliminate potential causes, and then identify the real cause of a problem.

When you design troubleshooting pages that your operations team can review several times a day, your team becomes proactive rather than reactive.

- **Overviews:** Views available in a summary context are overviews of network performance, as opposed to individual device statistics. They are generally from a higher tier and can provide drill

down access to more component detail. Summary views can be added to your custom overview pages to provide a high-level report of system health.

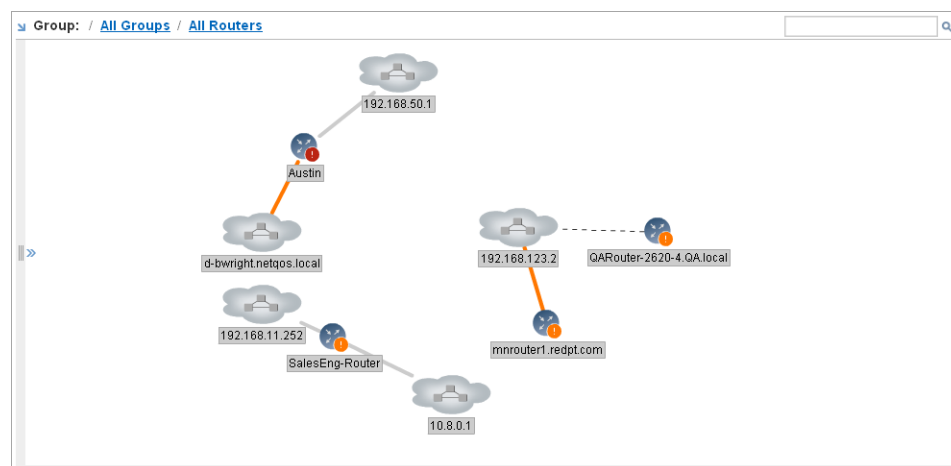
EVENT MANAGER INTEGRATION

Although Event Manager relies on event data reported by other monitoring products, such as third-party alerting systems, NetVoyant, or SuperAgent, it adds a great deal of value to the alerting provided by these data sources. In addition to event correlation and automatic notifications, Event Manager provides views that contain data not available in other CA NetQoS reports. For example, the Event Severity summary table provides data related to event severity and status to help you track the efficiency of IT troubleshooting procedures. The Event Source table correlates event types with the managed items where the most recent events have occurred and provides a drilldown path into data for those items. The metrics reported in Event Manager also help you track the relative frequency of reporting for events of different severity levels.

Some CA NetQoS data sources apply different rules to the various alerts that they generate, and in some cases, they use different terminology to describe basic event parameters, such as severity and status. It is therefore helpful to understand how Event Manager displays event data in the Event List. And you also need to know how to access additional event handling features, such as filtering options to help you sort through data from multiple events from multiple event sources.

Event Manager Maps

Event Manager provides a Maps feature, which displays a visual quick reference and overall status of your network and managed items in near real-time. The Map Event List is integrated into the Map with the events correlated to the group of managed items displayed in the Map. As you drill down within the map, the displayed events change to reflect those items in the map.



Additional views are available as both bar graph and table formats to sort by severity, type, and source. These can be added to report pages in NetQoS Performance Center.

Working with Event Manager Event Lists

The Event List and Map Event List views display the State, Severity, Type, Category, and a brief Description of events that were reported by the data sources registered with NetQoS Performance Center.

Event State

An event transitions through multiple states as it opens and is eventually resolved by IT staff. Each data source applies different states to its own incidents or events. The following table provides a generic definition of the various event states used by Event Manager:

Event state	Description
Open	The event is neither closed nor resolved. It has not been assigned to be investigated.
Acknowledged	The event is neither closed nor resolved. It was assigned to be investigated.
Closed	Either the condition associated with this event is not true or a user did something that cancelled the event. An event status can be Closed even when the problem that caused the event has not been corrected.
Cleared	The condition associated with the event is not true. The period required for the event to clear after the condition becomes inapplicable varies by reporting product. This state is not controlled by the user.

NetVoyant has three event states: *Open*, *Acknowledged*, and *Closed*. When a user acknowledges an event in NetVoyant, the event status shown in Event Manager changes to Closed. By contrast, when an event is closed by a user in Event Manager, it changes to Acknowledged in NetVoyant.

Note: Other CA NetQoS data sources handle event states somewhat differently. For a more detailed explanation about the differences between the handling of event states between CA NetQoS data sources, see the *CA NetQoS Event Manager User Guide*.

Event Severity

The severity levels of the events you see in Event Manager correspond to severity levels in other CA NetQoS data sources, based on the individual product that reported the event. Generally, the Critical severity level indicates an event of the highest severity, such as an unavailable router. However, not all data sources use this severity level when they report incidents or events; therefore, these CA NetQoS data sources do not send events with a Critical severity to Event Manager. For these data sources, the Major severity level indicates the highest-severity events.

Event Manager and NetVoyant use the same event severities, and all events produced by NetVoyant are displayed in the Event Manager interface using the same severity.

Note: Other CA NetQoS data source products handle event severities somewhat differently. For a more detailed explanation about the differences between the handling of event states between CA NetQoS data sources, see the *CA NetQoS Event Manager User Guide*.

Event Types

In Event Manager, event types vary based on the data source that reports the event. Events produced by NetVoyant fall into one of the following event types:

- Log - Provide information about topology changes and actions performed by NetVoyant services.
- Polling - Result from unsuccessful SNMP polls performed by NetVoyant. A Polling event is automatically *Cleared* on the next successful polling cycle.
- Trap - Events based on incoming SNMP traps. A Trap event is automatically *Cleared* when the clear filter for the trap event is met.
- Threshold - Triggered by threshold violations on your devices. Each threshold is composed of a threshold exceeded and a threshold cleared limit. A threshold event occurs when the value for an expression goes beyond the threshold exceeded value set for the alarm rule.

A Threshold event is automatically *Cleared* when the expression value matches the threshold-cleared definition.

Note: Other CA NetQoS data sources produce somewhat different event types. For a more detailed explanation about these event types produced by the other CA NetQoS data sources, see the *CA NetQoS Event Manager User Guide*.

In the Event List view, you can use the Edit option on the View menu to filter the events that appear in the list by Type. Only those types that are reported by data sources are listed as options in the filter.

