

CA Business Service Insight

Catalyst Connector Guide

8.2



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Chapter 1: Overview

This chapter introduces the CA Business Service Insight connector.

This section contains the following topics:

[About This Guide](#) (see page 7)

[Terminology](#) (see page 8)

[CA Business Service Insight Connector](#) (see page 9)

[Operating Environment Support](#) (see page 10)

[Communication Ports](#) (see page 10)

[Integration Scenarios](#) (see page 11)

About This Guide

This guide describes how to install and configure the CA Catalyst connector for CA Business Service Insight.

CA Catalyst connectors collect product data, convert it to a common format, and expose the data for visualization, analysis, and management in a unique, heterogeneous context. You can manage data collected from connectors in CA Catalyst itself or in products that consume or leverage the CA Catalyst platform.

This guide contains information specific to the CA Catalyst connector for CA Business Service Insight. For more general information about CA Catalyst connectors and the CA Catalyst infrastructure, information that applies to all connectors, and information about custom connector integrations, see the CA Catalyst documentation and the documentation for other products consuming connector data, if applicable

For known issues related to this specific connector, see the *CA Business Service Insight Connector Readme* distributed with the connector package.

Terminology

The following list contains concepts and terms that may be useful if you are using a CA Catalyst connector for the first time:

Connectors

Connectors are the links from CA Catalyst to external products, referred to in this document as domain managers. Each connector retrieves information from its domain manager and transmits the information through the connector framework to CA Catalyst and any consuming product for visualization and analysis. Connectors can also perform operations on data in the source domain manager. CA Catalyst connectors use a unified connector framework to enable integration with multiple consuming products.

Consuming products

Consuming products leverage the CA Catalyst platform to display and manage data from connectors in a specific context. For example, CA Service Operations Insight (CA Spectrum SA), formerly CA Spectrum Service Assurance, fully consumes the CA Catalyst platform to display all CA Catalyst data in the context of business services or cross-domain event and alert management. CA Process Automation can consume content from CA Catalyst connectors for use in process workflows.

USM

The *Unified Service Model (USM)* is a schema of common object types and properties to which data from all connectors is converted. The USM schema enables analysis of abstracted data from all domain managers in a common interface with identical formatting.

Configuration Items (CIs)

Configuration items (CIs) represent IT elements managed by a domain manager. Each CI belongs to a *type* (defined in the USM schema) such as ComputerSystem, Database, Process, Relationship, and so on. Connectors transform managed objects from domain managers to adhere to the USM schema and import the objects into CA Catalyst as CIs.

Services

Services represent discrete business functions that can contain CIs managed by multiple domain managers. For example, a payroll service may contain a user store managed by a security product, batch jobs managed by a mainframe product, a router managed by a network product, applications managed by an application management product, and so on. A Service is a unique CI type in USM that uses relationships to connect associated CIs.

Alerts

Alerts are fault conditions reported by the integrated domain manager. Each alert is associated with a CI and contains properties such as severity, a summary of the condition, and when the condition occurred.

Outbound from connector operations

Outbound from connector operations are operations that a connector invokes to import data from domain managers into CA Catalyst. All connectors support outbound from connector operations.

Inbound to connector operations

Inbound to connector operations invoke changes in the domain manager data store as a result of changes to the imported data in CA Catalyst. For example, CI reconciliation in CA Catalyst can change the values of CI properties. Connectors that support inbound operations can then enact that change in the source domain manager so that its data matches the reconciled data. Or if a CI is deleted in a domain manager that CA Catalyst defines as a source of truth, connectors that support inbound operations can delete the CI in other domain managers with a record of that CI.

Custom operations

Custom operations are operations that a connector can invoke to implement domain manager functionality that may be beneficial to a wider range of domain managers integrated through CA Catalyst. For example, a connector for an incident management product could implement a custom operation to create an incident for an alert on a CI managed by multiple domain managers.

Note: For more concepts and details, see the CA Catalyst documentation. For information about how CA Catalyst data is managed in consuming products, see the consuming product documentation.

CA Business Service Insight Connector

CA Business Service Insight provides important business service information such as SLA status, SMI score in enterprise. But, this information can not be integrated and orchestrated well with IT management products from CA and other vendors. There is no unified data format for CA Business Service Insight to integrate with these products.

The CA Business Service Insight connector enables members of IT Operations to have visibility into status of contracts for services. This helps them to monitor and make better decisions on problem prioritization. By using the connector, the contract status is exposed from CA Business Service Insight and captured by the IT operation system.

Note: For more information about CA Business Service Insight, see the CA Business Service Insight documentation.

Operating Environment Support

The CA Business Service Insight connector supports the following product versions:

- CA Catalyst r3.1
- CA Business Service Insight v8.1

The CA Business Service Insight connector supports installation on the following operating systems:

- Microsoft Windows Server 2003 (32-bit and 64-bit) Standard, Enterprise, and Datacenter with the latest service packs
- Microsoft Windows Server 2003 (32-bit and 64-bit) Release 2 Standard, Enterprise, and Datacenter with the latest service packs
- Microsoft Windows Server 2008 (32-bit and 64-bit) Standard, Enterprise, and Datacenter with the latest service packs
- Microsoft Windows Server 2008 (64-bit) Release 2 Standard, Enterprise, and Datacenter with the latest service packs

Communication Ports

Verify that the following ports are open between the connector and CA Catalyst for the connector to communicate with the product:

Port	Component
7002	Server Container and Connector Container
7000	WS Endpoint
7001	WS Callback
8080	HTTP
1433	Persistence Store (MS SQL database)
5250	CA EEM
61616	ActiveMQ Server
8005	Registry shutdown
8009	Registry AJP
8081	Registry
8443	
61616	Bus
7443	HTTPS
7002	HTTP API

Note: For information about CA Catalyst or consuming product port requirements, see the CA Catalyst or consuming product documentation.

Integration Scenarios

The CA Business Service Insight connector exposes data from CA Business Service Insight for management by consuming products. Using the CA Business Service Insight connector to integrate CA Business Service Insight data with CA Catalyst has the following benefits:

Get SLA Status

IT Operations members need visibility into the status of contracts for services they monitor. This helps them to make better decisions on problem prioritization. The CA Business Service Insight connector exposes the contracts status from CA Business Service Insight and is then captured by the IT operation system.

Dashboard Requirement

IT Managers have a common dashboard that shows them the operational status (available in SOI) as well as the status of contractual obligations and SMI scorecards. The CA Business Service Insight connector exposes unified format data to be recognized and used by SOI.

Chapter 2: Implementation and Configuration

This chapter describes how to implement and configure the CA Business Service Insight connector with CA Catalyst.

This section contains the following topics:

[Installation Considerations](#) (see page 13)

[Install the CA Business Service Insight Connector](#) (see page 14)

[Configure the CA Business Service Insight Connector](#) (see page 18)

[Post Installation and Configuration Activities](#) (see page 20)

[Uninstall the CA Business Service Insight Connector](#) (see page 21)

Installation Considerations

Complete the following as appropriate before you install the CA Business Service Insight connector:

- Install Catalyst Container first before installing the connector. This requires the user to install SQL Server and CA EEM.
- Collect the CA Business Service Insight admin user name, password and organization. CA Business Service Insight “Super Administrators,” “Administrators” and “Insight Super Administrators” role are admin.
- Create a report user who have access to read report data only. Below are the permission setting.
 - Contract Contractual Section - View
 - Own All Entities - Update
 - Report Drill - View
 - Report Export and Send - View
 - Report View Raw Data - View

Note: The connector calls the BSI SMI REST API and the report web service. It supports HTTP, but not HTTPS.

Install the CA Business Service Insight Connector

You can install the CA Business Service Insight connector on the computer where the CA Business Service Insight application is installed. However, verify that the J2EE Server component and Catalyst container exist on the same computer where you install the connector.

To install the CA Business Service Insight connector

1. Double-click the install.exe file from the CA Business Service Insight connector package (the path is CDROM_Installers\Windows\Disk1\InstData\VM\install.exe).
The installer Introduction page opens.
2. Click Next.
The License Agreement page opens.
3. Scroll to the bottom of the agreement, select "I accept the terms of the License Agreement", and click Next.
The Administrator Configuration page opens.
4. Specify the password that will be used for the CA Catalyst Administrator, and click Next:
The Remote Catalyst Registry Server Configuration page opens.
5. Specify the following details to connect to the Remote Catalyst Registry Server, and click Next.

Registry Host

Specifies the name of the node where CA Catalyst is installed.

HTTP Port

Specifies the server port number where CA Catalyst Registry is installed.

Default: 8081

Secure Server Port

Specifies the secure server port number where CA Catalyst Registry is installed.

Default: 8443

The Catalyst Container Server Configuration page opens.

6. Specify the following details to identify CA Catalyst Container Server, and click Next.

Node Name

Specifies the name of the node where CA Catalyst is installed.

Default: localhost

Bus Port

Specifies the bus port number for the CA Catalyst Server.

Default: 61616

HTTP Port

Specifies the HTTP port number that the CA Catalyst Server uses.

Default: 8080

HTTPS Port

Specifies the HTTPS port number that the CA Catalyst Server uses.

Default: 7443

WS Endpoint Port

Specifies the SOAP-based web service (WS) network port on the CA Catalyst Server. Other systems use this endpoint to make API remote procedure calls to the CA Catalyst Server.

Default: 7000

WS Callback Port

Specifies the web service (WS) network port that the CA Catalyst Server uses, so that other systems can make asynchronous callbacks.

Default: 7001

HTTP API Port

Specifies the HTTP resource state transfer-based web service network port on the CA Catalyst Server. Other systems use this endpoint to make API remote procedure calls to the CA Catalyst Server.

Default: 7002

The CA Business Service Insight Configuration page opens.

7. Specify the following details to connect to CA Business Service Insight, and click Next.

Module Instance

Specifies the instance name used to access CA Business Service Insight.

Default: localhost

Host Name

Specifies the host name where CA Business Service Insight is installed.

Admin User Name

Specifies the administrator user login name used to access CA Business Service Insight.

Default: sadmin

Admin Password

Specifies the administrator user password used to access CA Business Service Insight.

Default: sadmin

Admin Organization

Specifies the administrator organization name used to access CA Business Service Insight.

Default: CA

The CA Business Service Insight Report Configuration page opens.

8. Specify the following details to configure reporting, and click Next.

Report User Name

Specifies the report user name used to access the report in CA Business Service Insight.

Default: reportuser

Report User Password

Specifies the report user password used to access the report in CA Business Service Insight.

Report User Organization

Specifies the report user organization used to access the report in CA Business Service Insight.

Default: CA

The Install Summary page opens.

9. Review your selections, and click Install.

The connector installs on the system and integrates with the appropriate CA Business Service Insight and CA Catalyst instances. The Install Complete page opens when the installation finishes.

10. Click Done.

If the installation summary page notes installation errors, verify the Catalyst_HOME\
CA_Catalyst_Connector_for_CA_Business_Service_Insight_Install_<Date (MM-DD-YYYY)> <Time(HH:MM:SS)>.log file to troubleshoot the installation. Here Catalyst_HOME specifies the folder where Catalyst is installed. This file is created when you click Done after the installation finishes.

Configure the CA Business Service Insight Connector

After installing the CA Business Service Insight connector, you can change the connector properties you defined during installation and edit other properties to refine connector behavior or adjust to changes in the integrated product.

To configure the CA Business Service Insight connector

1. Enter the following URL in a web browser:

`https://registryserver:port/registry/carbon/admin/login.jsp`

registryserver

Specifies the name of the server where the CA Catalyst Registry is installed.

port

Specifies the CA Catalyst Registry port.

Default: 8443

The CA Catalyst Registry login page opens.

2. Enter catalyst in the Username field, enter the password for the catalyst user in the Password field, and click Sign-in.

The Registry Browse page opens.

3. Navigate to topology\physical\

The Browse page opens for the connector configuration file.

4. Click Edit as Text.

The CA Business Service Insight connector configuration file opens.

5. Edit the values for any of the following properties and click Save Content:

module_instance

The module instance name for the connector.

Default: <hostname> you input during installation.

bsi_hostname

The BSI server hostname.

Default: The CA Business Service Insight <hostname> you input during installation.

bsi_smi_api_port

BAI SMI REST API port.

Default:8080

bsi_smi_api_rootnamme

The BSI SMI REST API root name. Do not change the default value.

Default: Insight_API

bsi_smi_api_type

The BSI SMI REST API response type. Do not change the default value.

Default: xml

bsi_smi_api_version

The BSI SMI REST API version. Do not change the default value.

Default: 0.5

bsi_smi_api_key

The key for BSI SMI REST API. Every API needs one key and a secret pair to run. The value is received and configured by the connector installer during the installing. Do not change the value.

bsi_smi_api_secret

The secret for BSI SMI REST API. The value is received and configured by the connector installer during the installing. It is encrypted. Do not change the value.

bsi_admin_username

BSI administrator user name which is entered during installation.

bsi_admin_password

BSI administrator password which is entered during installation. It is encrypted.

bsi_admin_organization

BSI administrator organization which is entered during installation.

bsi_report_username

A report user is created before the installation for read report only. This is the report user name which is entered during installation.

bsi_report_user_password

The report user password which is entered during installation. It is encrypted.

bsi_report_user_organization

The report user organization which is entered during installation.

bsi_monitor_change_period_minutes

The connector checks the SLA aggregate status for a service periodically. This is the period time by minute.

Default: 15

Important! Do not change any other properties in the Connection Details table.

- Restart the CA Catalyst Container service.

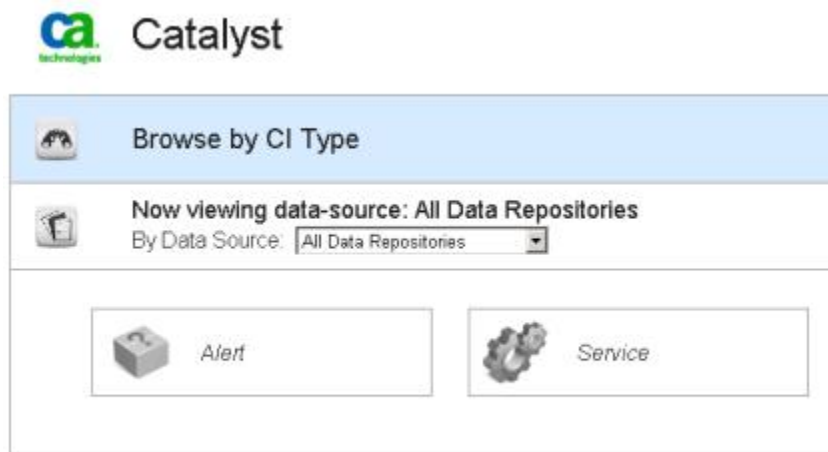
The changes are applied.

Important! Do not perform rapid start and stop operations on the connector. Each stop and start sends the corresponding command to the connector. Rapid start and stop operations from the interface can cause these commands to queue on the connector and cause the connector to start and stop repeatedly until all commands in the queue are processed.

Post Installation and Configuration Activities

After installing and configuring the CA Business Service Insight connector, perform the following steps to ensure the connector is working properly.

1. Go to <Catalyst_Home>\container\data\log\ and open the BSI-connector.log file. This file contains the CA Business Service Insight specific issues in the connector. Review the file for errors and debug.
2. Verify the connector is installed successfully using the Catalyst REST web page.
 - a. Open the Catalyst REST web page (http://<catalyst_host>:8080/ca-rest/browse/type?mdr=all).
 - b. Login with Catalyst admin username and password. If the connector was installed successfully, the following page opens.



- c. Select “CA Business Service Insight” from the drop-down list.
- d. Click the Service icon link. A list of all services (as they configured in CA Business Service Insight) is displayed.
- e. Click the Alert icon link. A list of all alerts for each service is displayed (summary lines that state “The alert of service <service name> is initialized.”).

Uninstall the CA Business Service Insight Connector

You can uninstall the CA Business Service Insight connector when it is no longer required.

To uninstall the CA Business Service Insight connector

1. Select Start, Programs, CA, Catalyst, Uninstall CA Catalyst Connector for CA Business Service Insight on the computer where the connector is installed.

The Uninstall CA Catalyst dialog opens.

2. Click Uninstall.

The connector uninstalls and the Uninstall Complete page lists the result of the uninstallation, including any errors that occurred.

3. Click Done.

4. Access the CA Catalyst Registry with the catalyst admin user. The default URL is `https://<registry-server-hostname>:8443/registry/carbon/admin/login.jsp`. Default user is catalyst, the password is what you entered during installation.

5. Navigate to the file `/topology/physical/<node>/startup.properties` and delete the `“,bsi-connector;3.1.0”` string in the property file.

6. Navigate to the file `/topology/physical/<node>/connector-modules.xml` and delete the string

```
<feature name="bsi-connector" version="3.1.0"> <bundle>file:C:/Program Files/CA/Catalyst/container/system/com/ca/catalyst/3.0.0/bundles/com.ca.bsi.catalyst.connector.jar</bundle> </feature>
```

7. Delete the four files:

- `/topology/physical/<node>/modules/configuration/BSIConnector.conf`
- `/topology/physical/<node>/modules/configuration/BSIConnector.xml`
- `/topology/physical/<node>/modules/policy/bsiconnector_policy.xml`
- `/topology/physical/<node>/modules/policy/bsiconnector_policySB.xml`

8. Save the changes.

9. Restart the CA Catalyst Registry and container.

Chapter 3: Connector and Domain Manager Interaction

This chapter describes how the CA Business Service Insight connector interacts with CA Catalyst and how the connector maps entities to the USM schema.

This section contains the following topics:

[Outbound from Connector Operations](#) (see page 23)

[USM Data Mapping](#) (see page 23)

Outbound from Connector Operations

The CA Business Service Insight connector uses the web services that run on the J2EE server to communicate with CA Business Service Insight.

The CA Business Service Insight connector can invoke outbound from connector operations to import the following CA Business Service Insight data into consuming products:

Get "managed" service list

Get specific "managed" service information

Get alerts when there is change of "aggregate status of SLA for a service"

Expose URL to enable "Launch in context of a service to CA Business Service Insight report" from alert

USM Data Mapping

When connectors import services and CIs from domain managers, they normalize the classes, properties, relationships, and severities in the domain manager to adhere to the USM schema.

Note: For more information about CI property mapping, see the `bsiconnector_policy.xml` connector policy file located at `/topology/physical/<node>/modules/policy` in the Catalyst Registry.

Type Mapping

The following table shows how the connector maps CA Business Service Insight types to USM types:

CI Types

USM Type	CA Business Service Insight Type
Service	Service
Alert	Alert

Service Properties

USM Type	CA Business Service Insight Type
MdrProduct	CA:00073
MdrProdInstance	Hostname
MdrElementID	Oblicore_SVC_ID
ServiceName	Service_Name
ServiceVersion	1.0
Description	Description

Alert Properties

USM Type	CA Business Service Insight Type
MdrProduct	CA:00073
MdrProdInstance	<Hostname>
MdrElementID	Alert_ Oblicore_SVC_ID
AlertedMdrElementID	Oblicore_SVC_ID
AlertedMdrProdInstance	<HostName>
AlertedMdrProduct	CA:00073
AlertType	Quality
Summary	Alert summary
Severity	Normal/Critical/Information
Message	Alert_Message
OccurrenceTimestamp	Alert_Time_Stamp
ReportTimestamp	Alert_Time_Stamp