CA Mediation Manager and CA Mediation Manager for Infrastructure Management

Installation Guide

CA Mediation Manager Release 2.2.3 / CA Mediation Manager for Infrastructure Management 2.0, Release 2.2.3

CA Technologies Product References

This document references the following CA Technologies products:

- CA Mediation Manager
- CA Mediation Manager for Infrastructure Management 2.0
- CA eHealth
- CA Infrastructure Management
- CA Spectrum

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Chapter 1: Introduction

Note: The information in this chapter applies only to CA Mediation Manager.

Overview

CA Mediation Manager monitors the performance for non-SNMP based devices, such as mobile wireless, fiber-optic switch, radio access, 3G or 4G voice, and data. CA Mediation Manager supports a wide range of protocols to access data, for example, SOAP, SSH, XML, SQL, JMS, SFTP, and HTTP.

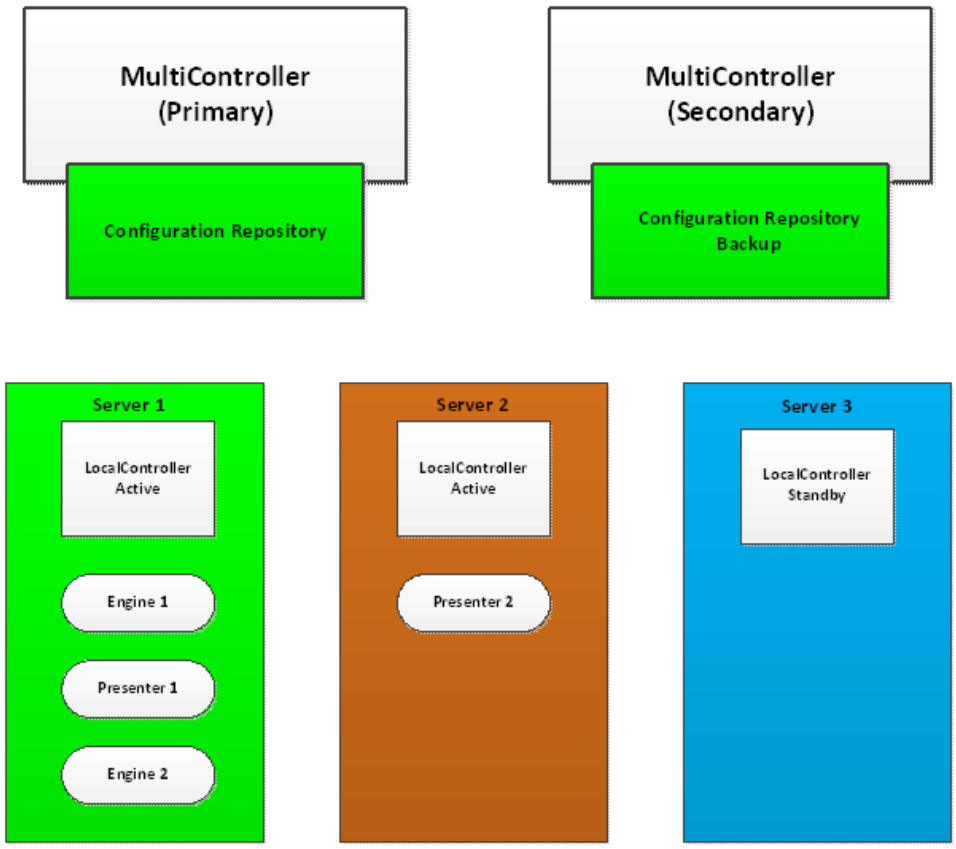
CA Mediation Manager also provides scalability, which enables a protocol (plugin) support and faster adaptation to a new environment. CA Mediation Manager is also portable across all platforms.

Architecture

CA Mediation Manager consists of two main components and two subcomponents. The main components are the MultiController (MC) and the LocalController (LC).

The subcomponents are the Engine and the Presenter.

The following diagram describes the general architecture:



The architecture also includes more components named the Generic Executor and the Delivery Service. These components are not shown in the previous diagram, but are described later in this guide.

Component Overview

The CA Mediation Manager installer installs the MultiController, LocalController, and the web components.

The CA Mediation Manager installer also installs the following components:

- Delivery Service (part of the LocalController)
- Generic Executor

The subcomponents, Engine and Presenter, are installed when you install a device pack.

Note: For more installation details for your specific device pack, see the Device Pack Guide in the DpConfig folder in CAMM_HOME, the directory where CA Mediation Manager is installed.

MultiController

You can deploy up to two MultiControllers, primary and secondary, in a cluster. Deploy at least one MultiController per cluster. A MultiController performs the following actions in your cluster environment:

- Monitors heartbeat messages from LocalController components on remote servers.
- Acts as the centralized licensing server for the cluster.
- Stores centralized configuration files for components in the cluster.

LocalController

Install one LocalController on each physical server in the cluster where a subcomponent (Engine or Presenter) resides. A LocalController performs the following actions:

- Provides the communication mechanism for subcomponents installed on the server.
- Monitors heartbeat messages for subcomponents on the local server and automatically restarts subcomponents if they fail.
- Uses a delivery service to process output from the Engine. This service delivers XML documents in a compressed and encrypted format to a local or remote Presenter.

Generic Executor

All components in a cluster share a common set of functions for communication and execution. The Generic Executor starts the Engine and Presenter subcomponents and cleans the temporary and log files.

The Generic Executor starts at system startup and listens on a specific TCP port. To start a component like the MultiController, the CA Mediation Manager Control Utility, cammCtrl, sends a MultiController XML configuration file to the Generic Executor. When the Generic Executor receives this data, it identifies and starts the MultiController component using the information in the configuration file.

Delivery Service

When an Engine finishes its poll cycle, it generates one or more CA Mediation Manager-standard XML documents in the queue directory. The Delivery Service monitors the queue directory independently and distributes the data to one or more local or remote Presenters.

If a local or remote Presenter is unavailable, the Delivery Service does not process the queue until the local or remote Presenter becomes available.

Engine

The Engine is the main, threaded polling engine in CA Mediation Manager. You can deploy the Engine in the active or standby mode. The Engine performs the following actions:

- Gathers information from devices using XML, CSV, Telnet, SSH, and so on, and processes the data to a CA Mediation Manager-standard XML document.
- Deploys the CA Mediation Manager-standard XML document to the queue for processing by the Delivery Service.

Presenter

The Presenter is a threaded presentation engine that performs the following actions:

- Receives the CA Mediation Manager-standard XML document from Engine.
- Formats the data to the required output format, such as CSV, XML, SNMP, and DDI.

Chapter 2: Installing CA Mediation Manager

Note: The information in this chapter applies only to CA Mediation Manager.

This section contains the following topics:

System Requirements

CA Mediation Manager requires the Java Runtime Environment (JRE) version 1.7 or later.

The following table describes the minimum hardware requirements for each supported operating system:

Operating System	Architecture	CPU	Memory	Disk
Solaris 9 or 10	SPARC (64-bit)	1 x 1.4 GHz	4 GB	18 GB
Linux	x86 (64-bit)	1 x 2 GHz	4 GB	18 GB
Windows 2003	x86 (64-bit)	1 x 2 GHz	4 GB	18 GB
Windows 2008	x86 (64-bit)	1 x 2 GHz	4 GB	18 GB

Note: Maintain consistency between the JRE and the operating system architecture. For example, on 64-bit operating systems, the JRE you use to install and run CA Mediation Manager must also be 64-bit. CA Technologies recommends using the latest version of JRE, which you can obtain from the Java download site.

Prerequisites

The installation prerequisites are as follows:

- Administrator privileges on Windows systems
- Java Runtime Environment (JRE) version 1.7 or later

You can download Java for all platforms from the Java download site.

Pre-installation Setup

After you install Java, log in to the server with the user ID you want the CA Mediation Manager processes to use. This user ID is referred to throughout the document as CAMM_USER.

Note: Enter a valid user ID present in the system in which you are installing CA Mediation Manager. If you do not specify a valid user ID, an error occurs and the installation fails.

Follow these steps:

1. Set the JAVA_HOME environment variable for your operating system:
   - UNIX systems (Solaris 8 or 9, and Linux)

     ```
     # JAVA_HOME="/export/home/jre7"
     ```

     ```
     # export JAVA_HOME
     ```
   - Windows systems (Windows 2003 and Windows 2008)
2. Open the System Properties dialog.
3. Select the Advanced tab and click Environment Variables.

   The Environment Variables dialog appears.
4. To display the New System Variable page, click New in the Systems Variables list.
   a. Add a case-sensitive variable named JAVA_HOME. Make this variable name upper-case only, and type the correct path value for the installed JRE.
   b. Click OK to add the new JAVA_HOME environment variable to the system variables list.

   Note: If a JAVA_HOME environment variable exists, make sure it references the proper path. Change the path statement, if necessary.
5. Determine your Java version:
   - UNIX systems (Solaris or Linux)

     ```
     # $JAVA_HOME/bin/java -version
     ```

     ```
     java version "1.7.0_09"
     ```

     ```
     Java(TM) SE Runtime Environment (build 1.7.0_09-b04)
     ```

     ```
     Java HotSpot(TM) Server VM (build 17.1-b03, mixed mode)
     ```
   - Windows systems (Windows 2003 and Windows 2008)

     Open a command prompt and run the following command:

     ```
     C:\>%JAVA_HOME%\bin\java –version
     ```

     ```
     java version "1.7.0_09"
     ```

     ```
     Java (TM) SE Runtime Environment (build 1.7.0_09-b06)
     ```

```
Java HotSpot(TM) Server VM (build 17.0-b16, mixed mode)
```

The Java home path is set.

Install CA Mediation Manager

This procedure describes the steps to install the CA Mediation Manager application on Windows or UNIX systems.

Follow these steps:

1. Start the CA Mediation Manager installation with the corresponding command based on your operating system:
   - UNIX systems

     ```
     # $JAVA_HOME/bin/java –jar CAMM-Installer-2.2.3.jar
     ```
   - Windows systems
     a. Insert the installation CD-ROM and open Windows Explorer.
     b. Locate and double-click the executable JAR file, CAMM-Installer-2.2.3.jar.
2. Click Next on the Welcome dialog.
3. Read the Important Information and click Next.
4. Review the licensing agreement and click Next.
5. Specify a target path in which to install the CA Mediation Manager software. As an alternative, click Choose to browse for an installation location.

   Note: When installing on a Windows System, the default installation directory is

   `C:\Program Files\CA\CAMM`.

   Note: When installing on a Unix System (Linux or Solaris), the default installation directory is /opt/CA/CAMM.
6. Select Typical for new installation or Upgrade for upgrading an existing installation.
7. Select one or more required installation packages.
   - MultiController
   - LocalController
8. Configure the following CA Mediation Manager foundation parameters:

   User ID

   Specifies the user ID for the Generic Executor for the CA Mediation Manager installation. The user ID is the CAMM_USER and defaults to the current user ID.

   Note: Enter a valid user ID present in the system in which you are installing CA Mediation Manager. If you do not specify a valid user ID, an error occurs and the installation fails.

   Port

   Specifies the port on which Generic Executor listens.

   Default: TCP port 29560

9. (Optional) Configure the following parameters of primary MultiController:

   Note: If this installation is the first installation, configure the primary MultiController. You can configure a secondary MultiController in a subsequent dialog.

   MC IP Address

   Specifies the IP address for this MultiController.

   MC Port

   Specifies the port on which the MultiController operates.

   Default: 29599

   MC Type

   Determines whether this MultiController is primary or secondary.

   Failover Threshold

   Determines the elapsed time with no received heartbeat messages, in seconds, and signals LocalController failure. When this threshold is reached, the MultiController activates the standby LocalController.

   Will the other MC exist in the cluster?

   Indicates that another MultiController exists or may exist in the cluster.

10. (Optional) Configure the following parameter for another MultiController in the same cluster:

    The Other MC IP

    Specifies the secondary MultiController IP address, if you installed and configured a primary MultiController.

    If you installed a secondary MultiController in a previous step, this value is the primary MultiController IP address.

    If this server is a backup server, install the secondary MultiController on a different host server.

11. Configure the following parameters for the web authentication:

    User

    Specifies the login name for the user who acts as the CA Mediation Manager Web Manager.

    Default: Admin

    Password

    Specifies the login password for the CA Mediation Manager Web Manager admin account.

12. (Optional) Configure the following parameters for LocalController. You need at least one LocalController on any server on which the Engine and Presenter subcomponents reside.

LC IP

Specifies the IP address for the LocalController.

LC Port

Specifies the port on which this LocalController operates.

Default: 29598

LC Type

Specifies whether the LocalController is active or on standby.

Failover Threshold

Determines the time that has elapsed with no received heartbeat messages in seconds, which signals subcomponent failure. When the threshold is reached, the LocalController restarts the Engine, Presenter, or both.

13. Review the installation summary and click Install.
14. Click Done.

    The installation is complete.
15. Navigate to $CAMM_HOME and check the installer information in the version.xml file. The content format in the version.xml file is as follows:

```
<?xml version="1.0" ?>
<CAMM-Version>
   <Current>
     <Version><2.2.3>/Version>
     <Revision><Installer revision number></Revision>
   </Current>
</CAMM-Version>
```

16. To start the application, click Start.

    The CA Mediation Manager application starts.

Starting and Stopping Services

The following information describes starting and stopping services in CA Mediation Manager for UNIX and Windows.

UNIX

You can execute the startall or stopall script or the init.camm script to start or stop CA Mediation Manager. The init.camm script is in the Tools directory in the CAMM Home directory.

Execute the following init.camm.install script, as root or sudo so, to start or stop CA Mediation Manager automatically at the system startup or shut down:

```
shell# tools/init.camm.install
```

Execute the following init.camm.uninstall script to remove the setting that automatically starts or stops CA Mediation Manager:

```
shell# tools/init.camm.uninstall
```

Windows

During the CA Mediation Manager installation on Windows, the Generic Executor and the Web component are registered as Windows Services. The service names are CAMM-GE-{user}-{port}, and CAMM-tomcat7-8880.

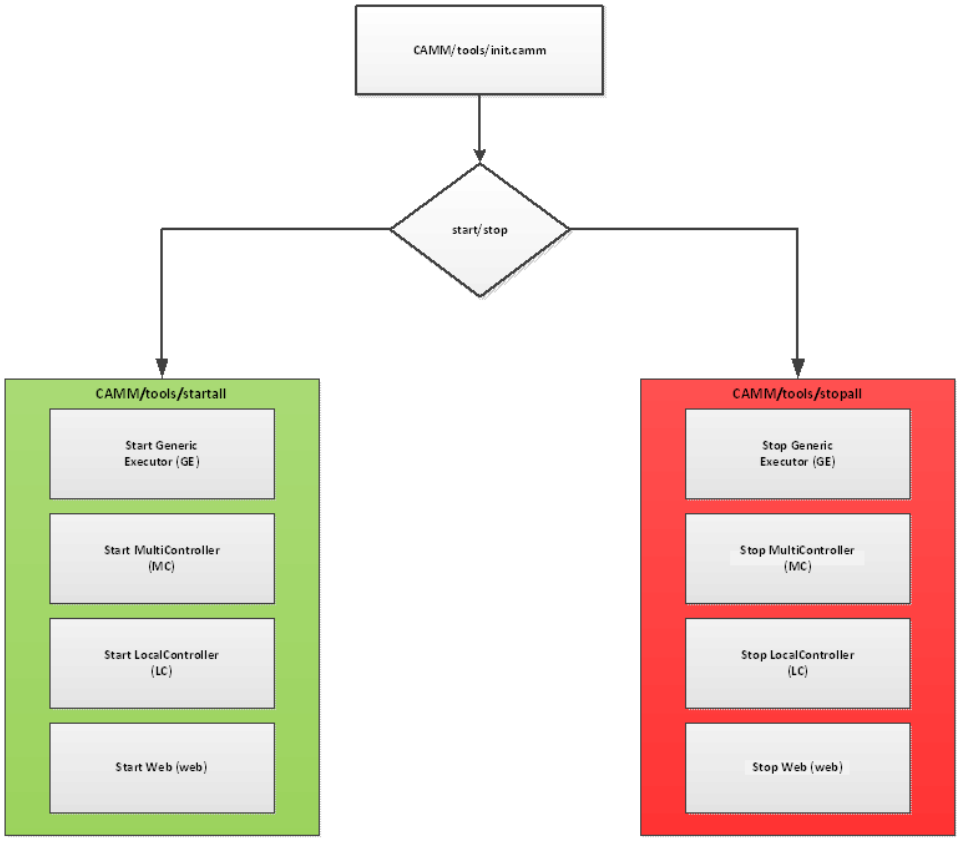
By default, these services are manually started. Similar to Linux, in Windows, you can automatically start or stop CA Mediation Manager at the system startup or shut down by executing init.camm.install.bat:

```
C:/CAMM/tools/init.camm.install.bat
```

Execute init.camm.uninstall.bat to remove the setting that automatically starts or stops CA Mediation Manager:

```
C:/CAMM/tools/init.camm.uninstall.bat
```

The following diagram illustrates the process flow of starting and stopping services:



Uninstall CA Mediation Manager

The following procedure describes how to uninstall CA Mediation Manager software.

Follow these steps:

1. (Optional) Stop the CA Mediation Manager cluster using the following command:
   - Windows systems:

     ```
     %CAMM_HOME%\tools\stopall.bat
     ```
   - Unix systems:

     ```
     $CAMM_HOME/tools/stopall
     ```
2. (Optional) Wait for all CA Mediation Manager components to stop.

   Note: Uninstaller stops CA Mediation Manager before it proceeds to remove CA Mediation Manager.
3. Run the following command:
   - Windows systems:

     ```
     "%JAVA_HOME%\bin\java" –jar
     %CAMM_HOME%\_CAMM_installation\uninstaller.jar
     ```
   - UNIX systems:

     ```
     "$JAVA_HOME\bin\java" –jar
     $CAMM_HOME/_CAMM_installation/uninstaller.jar
     ```

   The Uninstall dialog appears.
4. Click Uninstall.

   The Uninstaller stops CA Mediation Manager and starts the removal process. When the removal processing is complete, the Uninstall Complete window appears.
5. Click Done.

   CA Mediation Manager is uninstalled.

Upgrade CA Mediation Manager

Upgrade CA Mediation Manager when you need the latest release of the product.

Follow these steps:

1. Start the CA Mediation Manager installation with the respective command based on your operating system:
   - UNIX systems:

     ```
     # $JAVA_HOME/bin/java –jar CAMM-Installer-2.2.3.jar
     ```

   - Windows systems:
     a. Insert the installation CD-ROM and open Windows Explorer.
     b. Locate and double-click the executable JAR file, CAMM-Installer-2.2.3.jar.
2. Click Next on the Welcome dialog.
3. Read the Important Information and click Next.
4. Review the licensing agreement and click Next.
5. Specify a target path in which to install the CA Mediation Manager software. As an alternative, click Choose to browse for an installation location.

   Notes:
   - When installing on a Windows System, the default installation directory is C:\Program Files\CA\CAMM.
   - When installing on a Unix System (Linux or Solaris), the default installation directory is /opt/CA/CAMM.
6. Select Upgrade and click Next.
7. Review the upgrade summary and click Install to start the upgrade process.
8. Click Done.

   Note: CA Mediation Manager starts before the installer exits.

   The installer stops CA Mediation Manager and starts the upgrade process. All existing files are overwritten.

   Files in the following folders are preserved:
   - $CAMM_INSTALL_DIR/MC/repository
   - $CAMM_INSTALL_DIR/Queue
   - $CAMM_INSTALL_DIR/output
   - $CAMM_INSTALL_DIR/COMPONENTS

     Note: We recommend that you create a backup of any custom scripts in the CAMM_INSTALL_DIR/tools folder.

   CA Mediation Manager is upgraded.

9. Navigate to $CAMM_HOME and review the upgraded installer information in the version.xml file. The content format in the version.xml file is as follows:

```
<?xml version="1.0" ?>
<CAMM-Version>
   <Current>
     <Version><2.2.3>/Version>
     <Revision><Installer revision number></Revision>
   </Current>
   <History>
      <Build>
         <Version>2.1.4 or 2.1.3</Version>
         <Revision>Installer revision number</Revision>
      </Build>
  </History>
</CAMM-Version>
```

Chapter 3: Installing a Device Pack

A Device Pack is a set of xml configuration, ServingXml or Groovy, and XQuery files. A Device Pack pulls the data from a specific set of devices and converts it to a form understandable by North Bound Gateways like CA eHealth, CA Spectrum, or CA Infrastructure Management.

Note: The information in this chapter applies only to CA Mediation Manager.

This section contains the following topics:

Install a Device Pack

You can install a Device Pack through the CA Mediation Manager Web UI.

Follow these steps:

1. Launch the CA Mediation Manager Web UI:

   `http://<PrimaryMCMachineIP>:<web-port>/tim-web/index.htm`

   Where <w*eb-port* > is the port number configured during the CA Mediation Manager Installation and <*PrimaryMCMachine IP*> is the IP address or hostname of the primary MultiController system.

2. Enter the login credentials.
3. Select Device Packs from the CA Mediation Manager Cluster node in the Dashboard.
4. Select Install**.**

   The Deployment Selection dialog appears.

5. Select the Destination LocalController where you want to install the Device Pack from the Destination drop-down.
   - If the Device Pack you want to install is located in the Device Pack repository shipped with the current release of CA Mediation Manager, select the MultiController Repository check box.
   - If the Device Pack you want to install is not located in the Device Pack repository and resides in the local system, click Browse and locate the Device Pack.
6. Select the ENGINE_<devicepack>.zip file or the PRESENTER_<devicepack>.zip file that you want to install.
7. Select Next.

   The global external variables for the selected Engine or Presenter are displayed.

8. Provide the configuration parameters specific to the Device Pack being installed.

   Note: For more information about specific Device Pack configuration files, see the corresponding Engine readme file by selecting ReadMe from the Web UI.

9. Select Finish.

   The Device Pack is installed.

Install the CA eHealth Certification

Install the certification to work with CA eHealth.

Follow these steps:

1. Verify that you meet the following prerequisites:
   - The LocalController must be installed on the CA eHealth server using the same user credentials used for installing CA eHealth.
   - The PRESENTER_<devicepack> component must be installed on the LocalController that is running on the CA eHealth server.
   - $NH_HOME must be set to the CA eHealth installation directory. To confirm execute the following command:

     ```
     echo $NH_HOME
     ```
2. Copy the $CAMM_HOME/MC/eHealthCerts/CERT_<devicepack>.zip file to the $NH_HOME directory of your CA eHealth server.
3. Open a command prompt, type bash, and execute the following command:

   ```
   unzip CERT_<devicepack>.zip
   ```
4. Modify the $NH_HOME/modules/<devicepack>/camm.env script to provide the path details to JRE and the CAMM installation folder.
5. Create a soft link from $CAMM_HOME/output/PRESENTER_<devicepack> to $NH_HOME/modules/<devicepack>/ddiData.
6. Append the content of the $NH_HOME/db/data/variable.usr_<devicepack> file to $NH_HOME/db/data/variable.usr.
   - Before you combine the content, verify whether there are any duplicate variables in both files.
     - If you find duplicate variables, remove the duplicate variables and save the final $NH_HOME/db/data/variable.usr file.
   - Consider the final variables in the variable.usr file and map the variables.
   - Verify the mapping of the variable IDs in the variable.usr file and the elementTypeVariable.usr file.
   - Make sure that the variable IDs mapped in the elementTypeVariable.usr file are located in the variable.usr file.
7. Append the content of the $NH_HOME/db/data/elementTypeVariable.usr_<devicepack> file to $NH_HOME/db/data/elementTypeVariable.usr.
8. Stop the CA eHealth server with the following command:

   ```
   nhServer stop
   ```
9. Convert the database schema for a software upgrade using the following command:

```
nhConvertDb
```

Wait until the database conversion executes successfully.

10. Start the CA eHealth server with the following command:

```
nhServer start
```

11. Modify $NH_HOME/modules/<devicepack>/modules.defaults.init to suit your specific poll requirements.

12. Go to $NH_HOME/modules/camm<devicepackname> directory and execute the following command to discover your new elements:

```
./cammpoll –c –j -l
```

CA eHealth automatically calls cammpoll to poll the elements.

cammpoll is successful when you see the elements in CA eHealth OneClick in Manage Resources, Groups, <devicepack>.

Note: You only execute cammpoll manually, once. Take note of any situation afterward in which you execute the cammpoll command manually, because it represents an error condition. In normal operations, CA eHealth executes the cammpoll command automatically.

Uninstall a Device Pack

A Device Pack can be removed from CA Mediation Manager through the Web UI. You can remove both Engine and Presenter.

Follow these steps:

1. From the Web UI, select the Component (Engine or Presenter) that you want to uninstall.
2. Click Remove.

   The Remove Sub-Components dialog appears.
3. Select Yes.

   The Device Pack is uninstalled.

Upgrade a Device Pack

You can upgrade a Device Pack using the CA Mediation Manager Web UI.

Follow these steps:

1. Select Upgrade from the Web UI.

   The Deployment Selection dialog appears.

2. Select the Component (Engine or Presenter) that you want to upgrade.
3. From the Destination drop-down, select the Destination LocalController where you want to upgrade the Device Pack.
   - If the Device Pack you want to upgrade is located in the Device Pack repository shipped with the current release of CA Mediation Manager, select the MultiController Repository checkbox.
   - If the Device Pack you want to upgrade is not located in the Device Pack repository and resides in the local system, click Browse and locate the Device Pack.
4. Select the ENGINE_<devicepack>.zip file that you want to upgrade.
5. Select Next.

   The global external variables for the selected Engine or Presenter are displayed.

6. Provide the configuration parameters specific to the Device Pack being upgraded.

   Note: For more information about specific Device Pack configuration files, see the corresponding engine readme file by selecting Readme from the Web UI.

7. Select Finish.

   The Device Pack is upgraded.

Chapter 4: Installing, Uninstalling, and Upgrading Device Packs for CA Mediation Manager for Infrastructure Management 2.0, Release 2.2.3

Data Aggregator supports Element Management Systems (EMS). This device pack integration is designed to poll non-SNMP devices for inventory and performance data. Data Aggregator or EMS device packs work with Data Aggregator and CA Performance Center to provide the performance reporting.

Note: The information in this chapter applies only to CA Mediation Manager for Infrastructure Management 2.0.

This section contains the following topics:

Prerequisites

Before you install device packs, confirm whether the following packages are installed:

- FTP or SFTP on the device server
- CA Performance Center
- Data Aggregator
- Data Collector

  Note: For information about installing CA Performance Center and Data Aggregator, see the respective installation guides.

Upgrade Considerations

Several upgrade combinations are possible with this product integration.

Upgrade only Data Aggregator or CA Performance Center

No special steps are required before installing the upgrade. The EMS integration profiles can continue to run during the upgrade.

Add new device packs to Data Aggregator or CA Performance Center

New device packs can be added to current or upgraded versions of Data Aggregator or CA Performance Center. The existing EMS integration profiles can continue to run while installing new device packs.

Upgrade only EMS Device Packs

EMS profiles for existing EMS device packs must be stopped before an upgrade to those device packs can be completed. The installer notifies you about which EMS profiles to stop.

Install or Upgrade Device Packs

A device pack consists of Engine, Certification, and Views. The device pack installation or upgrade process supports only the console mode. In a single installation, you can install or upgrade multiple device packs.

Follow these steps:

1. Log in to the host where CA Performance Center is installed.

   Note: You must be logged in as an administrator to perform this task.

2. Unzip the ems_installer.zip file; the following files or folders appear:

   core

   This folder contains libraries and plugins.

   devicepacks

   This folder contains device packs.

   conf.properties

   This configuration file is used for the installation.

   ems-installer-bin.jar

   This file is the installer file.

3. Execute **java –jar ems-installer-bin.jar**.

   The installation starts.

4. Press Enter repeatedly to scroll through the license agreement. At the end of the agreement, type **yes** and press Enter to accept the license agreement.
5. Provide the CA Performance Center user name, password, and HTTP port number.

   Default: admin, admin, 8181
6. Provide the Data Aggregator IP address.

   Note: If Data Aggregator was not previously added as a data source, provide the IP address. Otherwise, the EMS installer retrieves the Data Aggregator information.
7. Provide the Data Aggregator HTTP port or press Enter to accept the default port.

   Options such as install, uninstall, or upgrade device packs display.
8. Do one of the following tasks:
   - Type **1** and press Enter to install device packs.
   - Type **3** and press Enter to upgrade device packs.
9. Do one of the following tasks:
   - Type **0** and press Enter to exit the installer.
   - Type **1** and press Enter to install or upgrade certifications on Data Aggregator.
   - Type **2** and press Enter to install or upgrade Engines on Data Collector.
   - Type **3** and press Enter to install or upgrade views on CA Performance Center.
   - Type **1,2,3** and press Enter to install or upgrade Certifications, Engines, and Views.

   Note: When you upgrade Engines, recreate the EMS profiles as the previous profile is deleted. However, data or reports are not lost.
10. Select the certifications to install or upgrade on Data Aggregator. To install or upgrade multiple certifications, separate the options by commas. For example, to install options 1, 3, and 4, type **1,3,4** and press Enter.
11. Select the specific Data Collector on which to install or upgrade the Engine.
12. (Only for upgrade.) Stop the EMS profiles that the installer notifies, write down the names of the profiles, and restart them after the upgrade process.

    Note: Stop and restart the EMS profiles using the Data Aggregator Admin user interface.
13. Select one or more engines to install or upgrade on Data Collector. To install or upgrade multiple engines, separate the options by commas.

    Note: During an upgrade, if a plug-in must be installed or upgraded, the installer installs or upgrades the plug-in.
14. Select the device pack views to install or upgrade. To install or upgrade multiple options, separate the options by commas.

15. Confirm the pre-installation summary, then type **yes** to continue and start the installation or type **no** to exit.

    The installer runs. The selected device packs are installed in the following locations:

    - Vendor certifications:

      `$DATA_AGGREGATOR/opt/IMDataAggregator/apache-karaf-2.3.0/deploy`

    - Engines:

      `$DATA_COLLECTOR/opt/IMDataAggregator/apache-karaf-2.3.0/deploy`

    - Libraries:

      `$DATA_COLLECTOR/opt/IMDataAggregator/apache-karaf-2.3.0/MediationCenter/lib`

    - Plugins:

      `$DATA_COLLECTOR/opt/IMDataAggregator/apache-karaf-2.3.0/MediationCenter/plugins`

Note: After a device pack is installed, create an EMS integration profile to start polling. If you are upgrading the device pack, recreate the EMS profile.

Uninstall a Device Pack

You can uninstall a device pack when you do not want to poll data for that device. This procedure completely removes the device pack from your system when followed sequentially.

Follow these steps:

1. Log in to the host where CA Performance Center is installed.

   Note: You must be logged in as an administrator to perform this task.

2. Execute **java –jar ems-installer-bin.jar**.

   Options to install, uninstall, or upgrade device packs or to exit the installer appear.

3. Type **2** and press Enter.

   The list of installed device packs appears.

4. Do one of the following tasks:

   - Type **0** and press Enter to exit the uninstaller.
   - Type **1** and press Enter to uninstall certifications on Data Aggregator.
   - Type **2** and press Enter to uninstall Engines on Data Collector.
   - Type **1, 2** and press Enter to uninstall Certifications and Engines.

   Note: You cannot uninstall the device pack views. You can only reinstall or upgrade the device pack views.

5. Select the certifications to uninstall from Data Aggregator. To uninstall multiple certifications, separate the options by commas. For example, to install options 1, 3, and 4, type 1,3,4 and press Enter.

6. Select the specific Data Collector to uninstall from Engine.

   Uninstallation summary appears.

7. Confirm the uninstallation summary and type **yes** to continue the uninstallation.