

Dell EMC OpenManage Integration Version 1.0 with ServiceNow

Installation Guide

Notes, cautions, and warnings

 **NOTE:** A NOTE indicates important information that helps you make better use of your product.

 **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

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Overview of Dell EMC OpenManage Integration with ServiceNow

Dell EMC OpenManage Integration with ServiceNow assists enterprise-level organizations to improve the efficiency of their business-critical operations by bridging any gaps between their services and Operations Management processes. It is a native application—within the ServiceNow platform—that provides seamless interface between OpenManage Enterprise (Infrastructure management capabilities) and ServiceNow (service and operations management capabilities). OpenManage Enterprise is a one-to-many systems management console that provides comprehensive, unified life cycle management for PowerEdge Modular Infrastructure, rack, and tower servers. The OpenManage Integration provides automation capabilities to transfer device inventory information and events between OpenManage Enterprise and ServiceNow, and therefore assists Service Management teams to quickly detect, diagnose, and resolve issues that impact business services and IT infrastructure health.

Also, OpenManage Integration with ServiceNow integrates with SupportAssist Enterprise for viewing and keeping track of the support cases—opened to the Dell EMC support teams—from within the ServiceNow instance. SupportAssist Enterprise is an application that proactively detects hardware issues—before they actually occur—and alerts the Tech Support teams about your PowerEdge servers, storage, and networking devices. With this integration, operations and service management teams can keep themselves abreast with the tech support tickets generated for PowerEdge servers, and track their progress from incident to resolution.

Dell EMC OpenManage Enterprise

OpenManage Enterprise is a systems management and monitoring application that provides a comprehensive view of the Dell EMC servers, chassis, storage, and network switches on the enterprise network. With OpenManage Enterprise, a web-based and one-to-many systems management application, you can:

- Discover and manage devices in a data center environment.
- Group and manage devices.
- View hardware inventory and compliance reports.
- Monitor the health of your devices.
- Manage device firmware versions and perform system updates and remote tasks.
- View and manage system alerts and alert policies.

For more information about OpenManage Enterprise, see [Dell.com/OpenManageManuals](https://www.dell.com/openmanage/manuals).

Dell EMC SupportAssist Enterprise

SupportAssist Enterprise automates technical support for your Dell EMC servers, storage, and networking devices. It monitors your devices and proactively detects hardware issues that may occur. When a hardware issue is detected, SupportAssist Enterprise automatically opens a support case with Technical Support and sends you an email notification.

For more information about SupportAssist Enterprise, see [Dell.com/ServiceabilityTools](https://www.dell.com/serviceability/tools).

Key features of OpenManage Integration with ServiceNow

- Native ServiceNow application support: OpenManage integration with ServiceNow can be installed and deployed on a ServiceNow instance.
- OpenManage Enterprise integration:
 - CMDB integration:
 - Periodic and on-demand sync of PowerEdge servers inventory from OpenManage Enterprise into a ServiceNow Configuration Management Database (CMDB).
 - Automatic creation of configuration items (CIs) for all the PowerEdge servers imported from OpenManage Enterprise into a ServiceNow CMDB.

- Event and incident management integration:
 - Periodic and on-demand sync of events from OpenManage Enterprise into a ServiceNow instance.
 - Automatic mapping of events (critical and warning) and alerts with the server CIs in ServiceNow.
 - Automatic creation of incidents for critical and warning alerts.
- SupportAssist Enterprise integration: Import support cases from SupportAssist Enterprise for the monitored servers into a ServiceNow instance and automatically create incidents for the corresponding support cases.
- The server inventory information, events, and Dell EMC support cases are fetched by OpenManage Integration by using the REST APIs provided by OpenManage Enterprise and SupportAssist Enterprise applications.

Installing OpenManage Integration with ServiceNow

To install OpenManage Integration in a ServiceNow instance, perform the following steps:

- Download the OpenManage Integration installer package from the Dell EMC support site.
- Install the OpenManage Integration by uploading the OpenManage Integration update set.
- Deploy the Connector .jar file on a MID Server for fetching the inventory information, alerts, and Dell EMC support cases from OpenManage Enterprise and SupportAssist Enterprise respectively.
- Configure instances of OpenManage Enterprise and SupportAssist Enterprise in ServiceNow.

Topics:

- [Installation prerequisites](#)
- [Compatibility matrix](#)
- [Required user privileges](#)
- [Install and configure a MID Server](#)
- [Download OpenManage Integration with ServiceNow](#)
- [Install OpenManage Integration in ServiceNow by uploading update set into ServiceNow instance](#)
- [Deploy OpenManage Integration connector .JAR on MID Server](#)

Installation prerequisites

Ensure the following prerequisites are met before you start with the installation of OpenManage Integration with ServiceNow.

- A supported version of ServiceNow instance is available. For more information about the supported software and hardware, see [Compatibility matrix](#).
- To view the events and incidents of OpenManage Integration with ServiceNow application, **you must activate the Event Management plugin in the ServiceNow instance**. Select **Actions > Activate plugin > Available plugins > Event Management > Activate plugin only** to activate the Event Management plugin.
- A MID server is installed and configured in your enterprise environment.
- OpenManage Enterprise is installed and configured in your enterprise environment, and PowerEdge servers are discovered and monitored in OpenManage Enterprise.
- SupportAssist Enterprise is installed and configured in your enterprise environment, and the devices in OpenManage Enterprise are added in SupportAssist Enterprise.
- A Dell EMC license supporting the OpenManage integration with ServiceNow must be installed on the target PowerEdge Servers for monitoring in ServiceNow. For more information, see the *License requirements for OpenManage Integration with ServiceNow* section in the *Dell EMC OpenManage Integration with ServiceNow User's Guide*.
- Users in ServiceNow have required user privileges to install and configure the OpenManage Integration in the ServiceNow instance.

Compatibility matrix

Table 1. Compatibility matrix

Supported software, operating system, and hardware	Version
ServiceNow releases	London, Madrid, and New York. See https://www.servicenow.com/ .
Dell EMC OpenManage Enterprise	3.2 and later
Dell EMC SupportAssist Enterprise	2.0 and later
Browsers	For more information about the supported browsers by ServiceNow, see the ServiceNow documentation at https://www.servicenow.com/ .

Supported software, operating system, and hardware	Version
Operating systems—to deploy and configure a MID server.	<ul style="list-style-type: none"> Microsoft Windows Server 2012 R2 Windows Server 2016
PowerEdge servers NOTE: A Dell EMC license supporting the integration with ServiceNow must be installed on the target PowerEdge Servers for monitoring in ServiceNow.	<p>For more information about the supported PowerEdge servers managed by using OpenManage Integration with ServiceNow, see the:</p> <ul style="list-style-type: none"> <i>Supported Dell EMC PowerEdge servers</i> section in the <i>Dell EMC OpenManage Enterprise Support Matrix</i> at Dell.com/OpenManageManuals. <i>Supported servers</i> section in the <i>SupportAssist Enterprise Support Matrix</i> at Dell.com/ServiceabilityTools.

Required user privileges

The OpenManage Integration with ServiceNow application installs the following set of user roles in a ServiceNow instance:

- `x_317119_omisnow.OMISNOW Operator` for the OpenManage Integration Operator role.
- `x_317119_omisnow.OMISNOW User` for the OpenManage Integration User role.

Ensure that appropriate roles and privileges are assigned to the ServiceNow users to use the OpenManage Integration with ServiceNow application. If required, additional users can be created in ServiceNow and assign them OpenManage Integration Operator and User roles.

Table 2. Required user privileges

OpenManage Integration with ServiceNow features	ServiceNow Administrator	OpenManage Integration with ServiceNow Operator	OpenManage Integration with ServiceNow User
Upload the OpenManage Integration with ServiceNow update set to ServiceNow	Allowed	Not allowed	Not allowed
Deploy OpenManage Integration with ServiceNow connector .jar on a MID Server	Allowed	Not allowed	Not allowed
Create a OpenManage Enterprise connection profile	Allowed	Allowed	Not allowed
Create a SupportAssist Enterprise connection profile	Allowed	Allowed	Not allowed
Retrieve the server inventory details from OpenManage Enterprise	Allowed	Allowed	Not allowed
Retrieve all the server events from OpenManage Enterprise	Allowed	Allowed	Not allowed
Retrieve cases from SupportAssist Enterprise	Allowed	Allowed	Not allowed
View the application logs in ServiceNow	Allowed	Not allowed	Not allowed
Schedule the inventory and event collection intervals	Allowed	Allowed	Not allowed

OpenManage Integration with ServiceNow features	ServiceNow Administrator	OpenManage Integration with ServiceNow Operator	OpenManage Integration with ServiceNow User
View the alerts and incidents created for the retrieved events from OpenManage Enterprise	Allowed	Allowed	Allowed
Update the alerts and incidents	Allowed	Allowed	Not allowed
Change the alert management rule	Allowed	NA	NA
Delete OpenManage Integration application from ServiceNow	Allowed	Not allowed	Not allowed

Install and configure a MID Server

OpenManage Integration with ServiceNow requires a Management, Instrumentation and Discovery (MID) server to be installed and configured in your data center. The MID Server (essentially a Java application) runs as a Windows service or UNIX daemon on a server in your local network. The MID Server facilitates communication and exchange of information (device inventory, alerts and open support cases details) between a ServiceNow instance and OpenManage Enterprise and SupportAssist Enterprise applications. It is important that MID server is able to access the OpenManage Enterprise and SupportAssist Enterprise applications over the data center network.

To install a MID server, configure a MID Server user and assign a user role in ServiceNow, and then install a MID Server by using one of the following methods:

- As a Windows Service.
- As a single MID Server on a Windows system.

For more information about downloading, installing, and configuring a MID Server in your data center, see the ServiceNow documentation at <https://www.servicenow.com/>.

Download OpenManage Integration with ServiceNow

Do keep the Service Tag of your Dell EMC PowerEdge server handy. It is recommended that you use the Service Tag to access all support on the Dell Support Website. This ensures that you download the appropriate version of the software for your platform.

To download the OpenManage Integration with ServiceNow installer package:

1. Go to Dell.com/support.
2. Perform one of the following actions:
 - Enter the Service Tag of your Dell EMC PowerEdge server, and then select **Search**.
 - Select **Browse all products > Servers > PowerEdge**, and select the appropriate model of your PowerEdge server.
3. On the support page of your server, select **Drivers & downloads**.
4. From the **Category** list, select **Systems Management**.
The supported version of OpenManage Integration with ServiceNow is displayed.
5. Perform one of the following actions to download the installer package on your file system:
 - Click **Download**.
 - Select the check box to add the software to your download list, and then click **Downloaded Selected Files**.

The downloaded .tar.gz file contains an update set (.xml file), a connector .jar file, a readme file, and an installation guide. For more information about installing the OpenManage Integration application in a ServiceNow instance, see [Installing OpenManage Integration with ServiceNow](#).

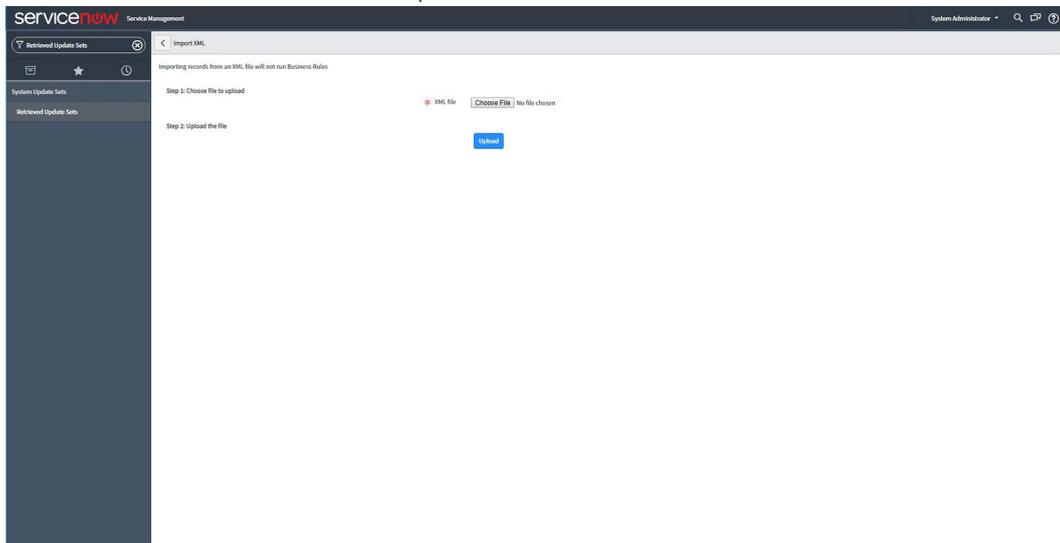
Install OpenManage Integration in ServiceNow by uploading update set into ServiceNow instance

Before you upload the update set to the ServiceNow instance, ensure that you have:

- A ServiceNow user with necessary user privileges. See [Required user privileges](#) .
- Downloaded and extracted the OpenManage Integration with ServiceNow installer file from the Dell EMC Support Site. For more information, see [Download OpenManage Integration with ServiceNow](#).

To upload the OpenManage Integration with ServiceNow update set into the ServiceNow instance:

1. In the ServiceNow instance, enter `System Update Sets` in the navigation filter, and then select **Retrieved Update Sets**. The **Retrieved Update Sets** page is displayed.
2. Under **Related Links**, click **Import Update Set from XML**.
3. On the **Import XML** page, click **Choose File** and go to the file system where you have extracted the installer files of OpenManage Integration with ServiceNow, and then select the .xml update set.



4. Click **Upload**.
Upon successful completion of the upload, the update set is listed on the **Retrieved Update Sets** page and **Loaded** is displayed under the state column.
5. Under the **Name** column, click **Dell EMC OpenManage Integration update set**, and then in the upper right corner, click **Preview Update Set**.
The progress is displayed in the **Update Set Preview** dialog box. If there are any errors during the preview of the update set, close the errors dialog box. Under **Related links**, select all the errors and under **Action on Selected Rows**, click **Accept remote update**.
After the preview of the update set completes successfully, close the dialog box and the state will be updated to **Previewed**.
6. To commit the update set changes to the ServiceNow instance, in the upper right corner, click **Commit Update Set**.
The progress is displayed in the **Update Set Commit** dialog box. After successful completion of committing the update set, close the dialog box and the state field of the update set is updated to **Committed**.

The uploaded update set is listed under **System Update Sets > Retrieved Update Sets**. For more information about update set transfers, see the ServiceNow documentation at <https://www.servicenow.com/>.

Deploy OpenManage Integration connector .JAR on MID Server

To enable communication between OpenManage Enterprise and ServiceNow, you must deploy a connector .jar on the Management, Instrumentation, and Discovery (MID) Server.

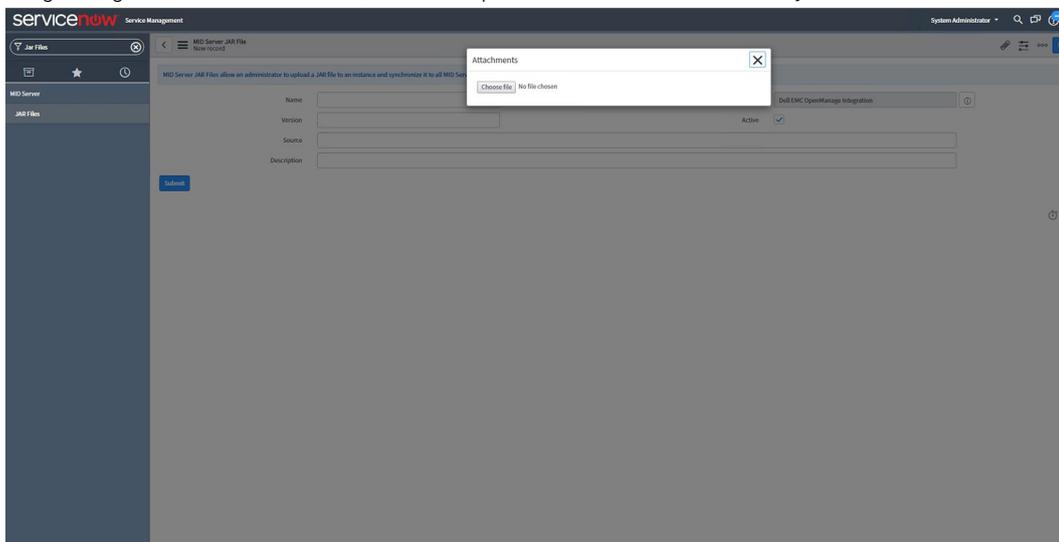
Before you deploy the connector .jar on the MID Server, ensure that you have:

- A ServiceNow user with necessary user privileges. See [Required user privileges](#) .
- Installed and configured the MID Server in your environment.

- Downloaded and extracted the OpenManage Integration with ServiceNow installer file from the Dell EMC Support Site. For more information, see [Download OpenManage Integration with ServiceNow](#).

To deploy the OpenManage Integration connector .jar file:

- In the ServiceNow instance, enter `MID Server` in the navigation filter, and then select the **JAR Files** module.
- Click **New**.
- In the upper right corner, click **Manage Attachments** > **Choose file** and go to the file system where you have extracted the installer files of OpenManage Integration with ServiceNow, and then upload the Dell EMC connector .jar file.



After the attachment is successfully uploaded, close the **Attachments** dialog box.

- Enter a name for the imported connector .jar file, and then click **Submit**.
- Enter `MID Server` in the navigation filter, and then select the **Servers** module.
- Under the **Name** column, select the MID Server, and then under **Related Links**, select **Restart MID**. The status of the MID Server changes from **Down** to **Up** after it is successfully restarted.

The Dell EMC connector .jar file is now deployed on the MID Server.

The installation of OpenManage Integration with ServiceNow is complete. To retrieve the devices, events, and support cases from OpenManage Enterprise and SupportAssist Enterprise, add connection profiles in the OpenManage Integration. For more information, see the *Dell EMC OpenManage Integration with ServiceNow User's Guide* on the support site.

Delete OpenManage Integration application from ServiceNow

Prerequisites:

A ServiceNow user with necessary user privileges. See [Required user privileges](#) .

The application scope of the ServiceNow must be changed to:

- Global application scope to delete out-of-box records such as events, alerts, and incidents.
- Dell EMC OpenManage Enterprise application scope to delete the OpenManage Integration.

For more information about changing the application scope in a ServiceNow instance, see the ServiceNow documentation at <https://www.servicenow.com/>.

To delete the OpenManage Integration application from ServiceNow:

1. To enable deletion of the associated OpenManage Integration alerts, events, and incidents that are created for the devices from ServiceNow instance, perform the following actions:
 - a) In the navigation filter, enter `System Definition` and select **Tables**.
 - b) For alerts, search for `em_alert` and select **Alert**, and then in the **Application Access** tab, select **Can delete** and click **Update**.
 - c) For events, search for `em_event` and select **Event**, and then in the **Application Access** tab, select **Can delete** and click **Update**.
 - d) For incidents, search for `incident` and select **Incident**, and then in the **Application Access** tab, select **Can delete** and click **Update**.
2. To enable deletion of the connector .jar file, perform the following actions:
 - a) In the navigation filter, enter `System Definition` and select **Tables**.
 - b) In the **Name** field, search for `ecc_agent_jar` and select **MID Server JAR File**.
 - c) In the **Application Access** tab, select **Can delete** and click **Update**.
3. To delete the OpenManage Integration application from ServiceNow:
 - For London version of ServiceNow instance: in the navigation filter, enter `System Applications` and under **Applications**, select **Dell EMC OpenManage Integration**.
 - For Madrid and New York versions of ServiceNow instance: in the navigation filter, enter `System Applications` and under **My Company Applications**, select **Dell EMC OpenManage Integration**.
4. Click **Delete All Records** to delete the alerts, events, incidents, and the connector .jar file.
5. In the navigation filter, enter `System Update Sets` and select **Local Update Sets**.
6. Select **Dell EMC OpenManage Integration** and click **Back Out** to delete the OpenManage Integration application.

 **NOTE: If the backout operation fails, click Close. Select all the backout problems and click Actions on selected rows > Decide To Keep Current. Click Back Out again to delete the OpenManage Integration from ServiceNow.**

The OpenManage Enterprise connection profile, SupportAssist Enterprise connection profile, and the server details retrieved from OpenManage Enterprise are deleted from the ServiceNow instance.

Additional resources

Table 3. Additional resources

Document	Description	Availability
<i>Dell EMC OpenManage Integration with ServiceNow User's Guide</i>	Provides information about using and troubleshooting OpenManage Integration with ServiceNow.	<ol style="list-style-type: none"> 1. Go to Dell.com/OpenManageManuals. 2. Click Dell EMC OpenManage Integration with ServiceNow and select the required application version. 3. Click Manuals & documents to access these documents.
<i>Dell EMC OpenManage Integration with ServiceNow Release Notes</i>	Provides information about new features, known issues, and workarounds in OpenManage Integration with ServiceNow.	
<i>Dell EMC OpenManage Enterprise User's Guide</i>	Provides information about installing and using OpenManage Enterprise.	<ol style="list-style-type: none"> 1. Go to Dell.com/OpenManageManuals. 2. Click Dell EMC OpenManage Enterprise and select the required application version. 3. Click Manuals & documents to access these documents.
<i>Dell EMC OpenManage Enterprise and OpenManage Enterprise - Modular Edition RESTful API Guide</i>	Provides information about integrating OpenManage Enterprise by using Representational State Transfer (REST) APIs and also includes examples of using REST APIs to perform common tasks.	
<i>Dell EMC SupportAssist Enterprise User's Guide</i>	Provides information about installing, configuring, using, and troubleshooting SupportAssist Enterprise.	Dell.com/ServiceabilityTools
<i>ServiceNow documentation</i>	For more information about using the ServiceNow application.	https://www.servicenow.com/

Accessing documents from the Dell EMC support site

You can access the required documents in one of the following ways:

- Using the following links:
 - For Dell EMC Enterprise Systems Management, Dell EMC Remote Enterprise Systems Management, and Dell EMC Virtualization Solutions documents — www.dell.com/esmmanuals
 - For Dell EMC OpenManage documents — www.dell.com/openmanagemanuals
 - For iDRAC documents — www.dell.com/idracmanuals
 - For Dell EMC OpenManage Connections Enterprise Systems Management documents — www.dell.com/OMConnectionsEnterpriseSystemsManagement
 - For Dell EMC Serviceability Tools documents — <https://www.dell.com/serviceabilitytools>
- From the Dell EMC Support site:
 1. Go to <https://www.dell.com/support>.
 2. Click **Browse all products**.
 3. From **All products** page, click **Software**, and then click the required link from the following:
 - **Analytics**
 - **Client Systems Management**
 - **Enterprise Applications**
 - **Enterprise Systems Management**
 - **Mainframe**
 - **Operating Systems**
 - **Public Sector Solutions**
 - **Serviceability Tools**
 - **Support**
 - **Utilities**
 - **Virtualization Solutions**
 4. To view a document, click the required product and then click the required version.
- Using search engines:
 - Type the name and version of the document in the search box.

Contacting Dell EMC

Dell EMC provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area.

i **NOTE: If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell EMC product catalog.**

To contact Dell EMC for sales, technical support, or customer service issues:

1. Go to Dell.com/support.
2. Select preferred country or region from the list at the bottom right of the page.
3. Click **Contact Us** and select the appropriate support link.