

# **Dell EMC OpenManage Integration Version 1.1.0 with Microsoft Windows Admin Center**

## 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 OpenManage Integration with Microsoft Windows Admin Center

Dell EMC OpenManage Integration with Microsoft Windows Admin Center (OMIMSWAC) enables IT administrators to manage the PowerEdge servers as hosts, Microsoft Failover Clusters created with PowerEdge servers, and Hyper-Converged Infrastructure (HCI) created by using the Dell EMC Solutions for Microsoft Azure Stack HCI. OMIMSWAC simplifies the tasks of IT administrators by remotely managing the PowerEdge servers and clusters throughout their life cycle. For more information about the features and benefits of OMIMSWAC, see the documentation at [Dell.com/OpenManageManuals](https://Dell.com/OpenManageManuals).

## Key features of OMIMSWAC

- OMIMSWAC provides a simplified solution to IT administrators to efficiently manage the following:
  - Dell EMC PowerEdge servers running on supported Windows Operating Systems.
  - Azure Stack HCI clusters based on AX nodes or Storage Spaces Direct Ready Nodes from Dell EMC.
  - Microsoft failover clusters created with Dell EMC PowerEdge servers.
- View overall Health, Hardware inventory, and iDRAC inventory of nodes including component-level information of all supported Dell EMC platforms.
- Provides Update Compliance reports against Dell EMC verified update catalogs and notifications for new catalog versions.
- Support for different baselines in OMIMSWAC when connected to the Internet:
  - Dell EMC Enterprise Catalog for PowerEdge Servers.
  - Dell EMC Azure Stack HCI Solution Catalog for Dell EMC Solutions for Microsoft Azure Stack HCI.
  - Dell EMC MX Solution Catalog for PowerEdge MX Modular.
- Support for local baselines created using Dell EMC Repository Manager (DRM).
- Update PowerEdge Servers against baseline – BIOS, driver, firmware, and/or system management applications.
- Cluster-Aware Updating against validated baseline (BIOS, driver, firmware, and/or system management applications) for PowerEdge server-based Failover cluster and Dell EMC Solutions for Microsoft Azure Stack HCI.
- View iDRAC information of PowerEdge servers. For out-of-band management, you can directly launch the iDRAC console from Windows Admin Center.
- Availability of OMIMSWAC extension and documentation localized in English, French, German, Spanish, Simplified Chinese, and Japanese languages.

### Topics:

- [New in this release](#)

## New in this release

- Added support for Dell EMC Online Catalogs:
  - Dell EMC Enterprise Catalog for PowerEdge Servers.
  - Dell EMC Azure Stack HCI Solution Catalog for Dell EMC Solutions for Microsoft Azure Stack HCI.
  - Dell EMC MX Solution Catalog for PowerEdge MX Modular.
- Ability to perform Server update including selective component updates.
- Ability to perform Cluster-Aware Updating against validated baseline (BIOS, driver, firmware, and system management applications) on the following.
  - PowerEdge server-based Failover cluster
  - Dell EMC Solutions for Microsoft Azure Stack HCI

 **NOTE:** For the Cluster-Aware Updating feature, a premium license must be installed on each node in a cluster.

- To locate physical disks or to identify failed physical disks, provision to blink and unblink the physical disks Light Emitting Diodes (LEDs) is provided.

- Support for newer platforms:
  - Platforms based on AX nodes—Dell EMC Solutions for Microsoft Azure Stack HCI nodes: AX-640, AX-6515, and AX-740xd.
  - Platforms based on Storage Spaces Direct Ready Nodes from Dell EMC—Dell EMC Solutions for Microsoft Azure Stack HCI: R440 ,R640,R740xd and R740xd2.
  - Microsoft Windows Admin Center version 1910.2.
- Ability to monitor health and inventory of Accelerators (GPU) with latest iDRAC9 based PowerEdge Servers.
- User interface enhancements for Intel Persistent Memory Health monitoring and Inventory.
- Correlation between Storage Controllers and Physical Disks to view the associated disks.
- Ability to refresh the health, inventory, and iDRAC information of the managed target nodes to ensure that displayed inventory information is the latest.
- Usability enhancement by downloading DSU and IC automatically required for components update.
- Ability to download catalog, DSU, and IC utilities from the Internet using proxy settings to generate compliance report.
- Displays Dell EMC Solutions badge **Azure Stack HCI Certified** for Dell EMC Solutions for Microsoft Azure Stack HCI cluster consisting of AX nodes or Storage Spaces Direct Ready Nodes.

# OpenManage Integration with Microsoft Windows Admin Center Licensing

This section provides licensing guidance for OpenManage Integration with Microsoft Windows Admin Center (OMIMSWAC).

## Overview

Installing and using OMIMSWAC Base version does not require any license and can be downloaded from the NuGet feed of Microsoft Windows Admin Center or Dell support site. The Base version provides basic management and monitoring for Dell EMC PowerEdge Servers, and Azure Stack HCI AX node and Storage Spaces Direct Ready Nodes. However, to use some of the premium features, such as Cluster-Aware Updating (CAU)—updating the firmware, BIOS, Drivers, and the applications that are installed in a cluster—you must install the OMIMSWAC license on target nodes.

**Platforms supported:** The premium features are supported for the following platforms:

- YX4X models of Dell EMC PowerEdge server and above with iDRAC firmware 4.00.00.00 or newer.
- Dell EMC Solutions for Microsoft Azure Stack HCI with iDRAC firmware 4.00.00.00 or newer.

**NOTE:** The OMIMSWAC license is not required to update individual target node.

## Purchase OMIMSWAC license

You can purchase OMIMSWAC licenses while ordering the corresponding servers and solutions through Point of Sale (POS) or After Point of Sale (APOS) by contacting Dell sales representatives. The OMIMSWAC license is bundled as part of the server license if purchased along with the server. If the license is purchased in APOS method, import the license manually using the iDRAC. For more information about importing license manually, see iDRAC documentation.

**NOTE:** Licenses must be purchased for the corresponding Azure Stack HCI or PowerEdge Servers in a cluster as follows where you want to use the premium feature. As, mixing the licenses will not be supported.

License	Description	Licensing model
OpenManage Integration with MS Windows Admin Center <b>Premium License for PowerEdge</b>	All base features plus premium management features for PowerEdge Servers	Perpetual iDRAC based license
OpenManage Integration with MS Windows Admin Center <b>Premium License for Azure Stack HCI</b>	All base features plus premium management features for Azure Stack HCI AX nodes and Storage Spaces Direct Ready Nodes	Perpetual iDRAC based license

You can download the purchased license from the Software License Management Portal at [HTTPS://WWW.DELL.COM/SUPPORT/SOFTWARE/US/EN/04](https://www.dell.com/support/software/us/en/04).

## Verify license information

OMIMSWAC provides a compliance report to view the list of cluster nodes details and their licenses. To view license status, generate a compliance report by selecting **Update > Update Source > Next: Compliance details**. You can verify if OMIMSWAC license is installed on cluster nodes.

**NOTE:** All nodes participating in the managed cluster must have an OMIMSWAC license installed to use premium features. If any of the cluster nodes are not licensed, OMIMSWAC notifies and does not allow you to use the premium feature.

# Compatibility matrix

**Table 1. Compatibility matrix**

Supported software and hardware	Version
Microsoft Windows Admin Center	1910.2 GA release. For more information, see the Microsoft Windows Admin Center documentation at <a href="https://www.microsoft.com/en-us/cloud-platform/windows-admin-center">https://www.microsoft.com/en-us/cloud-platform/windows-admin-center</a> .
Operating systems	For more information about the supported OSs for installing Microsoft Windows Admin Center and different modes of installation, see the Microsoft Windows Admin Center documentation at <a href="https://www.microsoft.com/en-us/cloud-platform/windows-admin-center">https://www.microsoft.com/en-us/cloud-platform/windows-admin-center</a> . <b>NOTE:</b> To view the update compliance details of the devices by using OpenManage Integration with Windows Admin Center, the supported OSs are Microsoft Windows 2012 R2 and later.
Browsers	For more information about the supported browsers by Microsoft Windows Admin Center, see the Microsoft Windows Admin Center documentation at <a href="https://www.microsoft.com/en-us/cloud-platform/windows-admin-center">https://www.microsoft.com/en-us/cloud-platform/windows-admin-center</a> .
Dell EMC System Update Utility (DSU)	1.8.1 The <b>Systems-Management_Application_DVHNP_WN64_1.8.1_A00.EXE</b> DSU file can be downloaded from <a href="#">here</a> .
Dell EMC Inventory Collector (IC)	The supported version of IC can be downloaded from <a href="#">here</a> .
Dell EMC Repository Manager (DRM)	3.3 The supported version of DRM can be downloaded from <a href="#">here</a> .
PowerEdge servers as target nodes. For more information on the generic naming convention of PowerEdge servers, see <a href="#">Identifying the generation of your Dell EMC PowerEdge server</a> on page 14.	YX2X and YX3X models of PowerEdge servers with iDRAC7 and iDRAC8 respectively (Recommended firmware version of 2.60.60.60 or later). <b>NOTE:</b> <ul style="list-style-type: none"> <li>• <b>For PowerEdge servers with firmware versions lesser than 2.60.60.60, information of hardware inventory and health status of few components might not be available. For more information about the components for which the information is not available, see <i>Dell EMC OpenManage Integration with Microsoft Windows Admin Center User's Guide</i>.</b></li> <li>• <b>In YX2X and YX3X models of PowerEdge servers, following features are not available:</b> <ul style="list-style-type: none"> <li>○ <b>Cluster-Aware Updating</b></li> <li>○ <b>Health and Inventory information of Accelerators</b></li> </ul> </li> </ul>
	YX4X models of PowerEdge servers with iDRAC9 (Recommended firmware version of 3.30.30.30 or later).
	YX5X models of PowerEdge servers with iDRAC9 (Recommended firmware version of 3.40.40.40 or later).
Azure Stack HCI as target nodes	AX-640, AX-6515, and AX-740xd Dell EMC Solutions for Microsoft Azure Stack HCI.
Supported Storage Spaces Direct Ready Nodes as target nodes	R440 ,R640,R740xd and R740xd2 Dell EMC Solutions for Microsoft Azure Stack HCI.

# Installing Dell EMC OpenManage Integration with Microsoft Windows Admin Center

The Dell EMC OpenManage Integration with Microsoft Windows Admin Center can be installed in one of the following methods:

- By using the NuGet feed of Microsoft Windows Admin Center. See [Install Dell EMC OpenManage Integration with Microsoft Windows Admin Center by using the official Microsoft NuGet feed](#) on page 8.
- By using a local path or a network share as package source for installation. See [Install Dell EMC OpenManage Integration with Microsoft Windows Admin Center by using local path or network file share](#) on page 9.

**NOTE:** If you are installing Dell EMC OpenManage Integration with Windows Admin Center extension by using the Custom Feed option, see the [Microsoft documentation](#) to set up a custom feed or share.

## Topics:

- [Install Dell EMC OpenManage Integration with Microsoft Windows Admin Center by using the official Microsoft NuGet feed](#)
- [Download Dell EMC OpenManage Integration with Microsoft Windows Admin Center](#)
- [Install Dell EMC OpenManage Integration with Microsoft Windows Admin Center by using local path or network file share](#)

## Install Dell EMC OpenManage Integration with Microsoft Windows Admin Center by using the official Microsoft NuGet feed

Before you install Dell EMC OpenManage Integration extension in Windows Admin Center by using the NuGet feed, ensure that you have:

- Logged in to Windows Admin Center as a gateway administrator.

To install Dell EMC OpenManage Integration extension by using the NuGet feed:

1. In the Windows Admin Center application, in the upper right corner, select **Settings**.
2. Under **GATEWAY**, click **Extensions**.  
In the **Available extensions** tab, the Dell EMC OpenManage Integration extension is listed.
3. Select **Dell EMC OpenManage Integration** extension, click **Install**, and then click **Confirm** to confirm the changes and to install the extension.

After the Dell EMC OpenManage Integration extension is installed, Windows Admin Center is restarted, and the extension is listed under **Installed extensions**.

## Download Dell EMC OpenManage Integration with Microsoft Windows Admin Center

1. Go to [Dell.com/support](https://Dell.com/support).
2. Perform one of the following actions:
  - Enter the Service Tag of your PowerEdge server, and then select **Search**.
  - Select **Browse all products > Servers > PowerEdge**, and then 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**.
5. Select the supported version of OpenManage Integration with Microsoft Windows Admin Center, and then click **Download**.

The downloaded `Dell_EMCAOpenManage_Integration_MS_WAC_<Version>.<Build_Number>.zip` file contains the `.nupkg` file which is used to install OMIMSWAC integrator in Windows Admin Center by using a local path or network share.

 **NOTE: Do not rename the .nupkg file while installing the OMIMSWAC extension.**

# Install Dell EMC OpenManage Integration with Microsoft Windows Admin Center by using local path or network file share

Before you install Dell EMC OpenManage Integration extension in Windows Admin Center by using a local path or a network file share, ensure that you have:

- Logged in to Windows Admin Center as a gateway administrator.
- Downloaded and extracted the OpenManage Integration with Microsoft Windows Admin Center `.zip` file from the Dell EMC support site.

To install Dell EMC OpenManage Integration extension by using a local or network file share:

1. In the Windows Admin Center application, in the upper right corner, select **Settings**.
2. Under **GATEWAY**, click **Extensions**.
3. Select **Feeds > Add**.
4. In the **Add package source** window, enter the local path or network file share where you have extracted the `.zip` file. Example paths:  
`C:\<foldername>`, `\\sharename\foldername`.

 **NOTE: Do not rename the .nupkg file in the extracted folder.**

 **NOTE: You must set read and write permissions to the local or network file location.**

5. Click **Add**.  
If the extension is successfully added, the extension is listed under the **Available Extensions** tab.
6. Select **Dell EMC OpenManage Integration** extension, click **Install**, and then click **Confirm** to confirm the changes and to install the extension.

After the Dell EMC OpenManage Integration extension is installed, Windows Admin Center is restarted, and the extension is listed under **Installed extensions**.

 **NOTE: While installing OMIMSWAC by using local path or network path, multiple instances of OMIMSWAC extension might be listed under Available and Installed Extensions, when:**

- **More than one .nuget packages are available in the specified folder path.**
- **The .nuget packages are available in root or subfolders in addition to the folder path provided under Feeds > Add package source.**

# Upgrading OpenManage Integration with Microsoft Windows Admin Center

You can upgrade the OpenManage Integration with Microsoft Windows Admin Center (OMIMSWAC) extension by using one of the following methods:

- By using the official Microsoft NuGet feed.
- By using a local path or network file share with the downloaded .zip file from Dell EMC Support Site.

## Topics:

- [Upgrading Dell EMC OpenManage Integration with Microsoft Windows Admin Center by using the official Microsoft NuGet feed](#)
- [Upgrade Dell EMC OpenManage Integration with Microsoft Windows Admin Center by using local path or network file share](#)

## Upgrading Dell EMC OpenManage Integration with Microsoft Windows Admin Center by using the official Microsoft NuGet feed

1. In the Windows Admin Center application, in the upper right corner, select **Settings**.
2. Under **GATEWAY**, click **Extensions**.
3. In the **Installed extensions** tab, available update to the **Dell EMC OpenManage Integration** extension is displayed. Click **Update**.  
Alternatively, you can also update the **Dell EMC OpenManage Integration** extension by using the **Available extensions** tab and clicking **Install**.

After the Dell EMC OpenManage Integration extension is updated to a newer version, the Microsoft Windows Admin Center is restarted.

## Upgrade Dell EMC OpenManage Integration with Microsoft Windows Admin Center by using local path or network file share

Before you upgrade the Dell EMC OpenManage Integration extension in Windows Admin Center by using a local path or a network file share, ensure that you have:

- Logged in to Windows Admin Center as a gateway administrator.
- Downloaded and extracted the latest version of OpenManage Integration with Microsoft Windows Admin Center .zip file from the Dell EMC support site.

To upgrade Dell EMC OpenManage Integration extension by using a local or network file share:

1. In the Windows Admin Center application, in the upper right corner, select **Settings**.
2. Under **GATEWAY**, click **Extensions**.
3. Under **Feeds**, select any previously added feed and click **Delete**.
4. To add a new feed, click **Add**.
5. In the **Add package source** window, enter the local path or network file share where you have extracted the .zip file. Example paths:  
C:\<foldername>, \\sharename\foldername.

 **NOTE:** Do not rename the .nupkg file in the extracted folder.

 **NOTE:** You must set read and write permissions to the local or network file location.

6. After the extension is successfully added, the latest version of the extension is listed under the **Available Extensions** tab. To upgrade, click **Install**.

After the Dell EMC OpenManage Integration extension is upgraded, Windows Admin Center is restarted, and the extension is listed under **Installed extensions**.

 **NOTE:** While installing OMIMSWAC by using local path or network path, multiple instances of OMIMSWAC extension might be listed under Available and Installed Extensions, when:

- More than one .nuget packages are available in the specified folder path.
- The .nuget packages are available in root or subfolders in addition to the folder path provided under Feeds > Add package source.

# Launching OpenManage Integration with Microsoft Windows Admin Center

Before you launch Dell EMC OpenManage Integration extension in Windows Admin Center, ensure that you have:

- Logged in to Windows Admin Center as a gateway administrator.

After installing the OpenManage Integration with Microsoft Windows Admin Center (OMIMSWAC), perform the following actions to launch the extension:

1. In the upper left corner of Windows Admin Center, select:
  - For 1910.2 GA releases of Windows Admin Center: **Server Manager** or **Cluster Manager** from the drop-down menu.
2. From the list, select a server or cluster connection, and then click **Connect**.
3. Provide server or cluster credentials.
 

**NOTE:** If you are not prompted to enter the credentials, ensure that you select "Manage as" and provide appropriate Server Administrator or Cluster Administrator accounts.
4. In the left pane of the Microsoft Windows Admin Center, under **EXTENSIONS**, click **Dell EMC OpenManage Integration**.

- NOTE:** If Microsoft Windows Admin Center is installed on a target node and the target node is managed by OMIMSWAC, the inventory fetch functionality of OMIMSWAC may result in failures.

**Before connecting to the target node, ensure that you select "Manage as" and provide appropriate Server Administrator or Cluster Administrator accounts. For more information about selecting "Manage as", see the "Get Started with Windows Admin Center" section in the Microsoft documentation.**

When you launch the OpenManage Integration for the first time, a consent form is displayed to inform you about the operations performed by the OpenManage Integration such as enabling the USB NIC and creating an iDRAC user on the target node. Click **Accept** to continue to manage the PowerEdge servers by using the OpenManage Integration.

- NOTE:** After the information from the target nodes is collected, the previously created iDRAC user is deleted by OMIMSWAC.

To ensure proper functioning of OpenManage Integration with Microsoft Windows Admin Center, ensure that:

- Firewall in your enterprise environment enables communication through SMB port 445.
- Redfish service is enabled on the target node.
- An iDRAC user slot is available on the target node.
- The target node is not booted to Lifecycle Controller.
- The target node is not in the reboot state, or is powered-off.
- The USB NIC adapter is not disabled on the target node OS.
- The lockdown mode is disabled on target node.

- NOTE:** For management of PowerEdge servers, OMIMSWAC uses an internal OS to iDRAC Pass-through interface. By default, iDRAC will be reachable using the IP address 169.254.0.1/<Subnet> or 169.254.1.1/<Subnet>. However, if the host has another network interface in the same subnet (For example, when a tool like VMFleet is installed), OMIMSWAC might not be able to communicate to the iDRAC from the host OS. To resolve the conflict, log in to iDRAC and change the USB NIC IP address under the OS to iDRAC passthrough section. For more information about assigning this IP address, see the iDRAC documentation on the Dell EMC support site.

For more information about using and configuring the OpenManage Integration with Microsoft Windows Admin Center extension, see *Dell EMC OpenManage Integration with Microsoft Windows Admin Center User's Guide* on the Dell EMC support site.

# Uninstall Dell EMC OpenManage Integration with Microsoft Windows Admin Center

1. In the Windows Admin Center application, in the upper right corner, select **Settings**.
2. Under **GATEWAY**, click **Extensions**.
3. In the **Installed extensions** tab, select the **Dell EMC OpenManage Integration** integration, and then click **Uninstall**.
4. Click **Confirm** to proceed with the uninstallation of the extension.

After the Dell EMC OpenManage Integration extension is uninstalled, Windows Admin Center is restarted, and the extension is listed under **Available extensions**.

 **NOTE:** After OpenManage Integration with Windows Admin Center is uninstalled, the update tool settings will be retained in the Windows Admin Center instance. However, the passwords are not retained.

# Identifying the generation of your Dell EMC PowerEdge server

To cover a range of server models, the PowerEdge servers are now be referred to using the generic naming convention and not their generation.

This topic explains how to identify the generation of a PowerEdge server that are referred to using the generic naming convention.

Example:

The R740 server model is a rack, two processor system from the 14th generation of servers with Intel processors. In the documentation, to refer to R740, generic naming convention **YX4X** server is used, where:

- The letter **Y** (alphabet) denotes the type (form factor: Cloud (C), Flexible(F), Modular (M or MX), Rack(R), Tower(T)) of the server.
- The letter **X** (digit) denotes the class (number of processors) of the server.
- The digit **4** denotes the generation of the server.
- The letter **X** (digit) denotes the make of the processor.

**Table 2. PowerEdge servers naming convention and examples**

<b>YX5X servers</b>	<b>YX4X servers</b>	<b>YX3X servers</b>
PowerEdge R7515	PowerEdge M640	PowerEdge M630
PowerEdge R6515	PowerEdge R440	PowerEdge M830
	PowerEdge R540	PowerEdge T130

## Additional resources

**Table 3. Additional resources**

Document	Description	Availability
<i>Dell EMC OpenManage Integration with Microsoft Windows Admin Center User's Guide</i>	Provides information about using OpenManage Integration with Microsoft Windows Admin Center.	<ol style="list-style-type: none"> <li>Go to <a href="https://Dell.com/OpenManageManuals">Dell.com/OpenManageManuals</a>.</li> <li>Select <b>OpenManage Integration with Microsoft Windows Admin Center</b>.</li> <li>Click <b>DOCUMENTATION &gt; MANUALS AND DOCUMENTS</b> to access these documents.</li> </ol>
<i>Dell EMC OpenManage Integration with Microsoft Windows Admin Center Release Notes</i>	Provides information about new features, known issues and workarounds in OpenManage Integration with Microsoft Windows Admin Center.	
<i>Dell EMC Infrastructure Compliance Report for PowerEdge Servers and Azure Stack HCI Clusters using the OMIMSWAC</i>	This white paper describes the process to generate update compliance report for PowerEdge servers, Microsoft Azure Stack HCI clusters, and Hyper-V based failover clusters by using OMIMSWAC.	
<i>Microsoft Windows Admin Center documentation</i>	For more information about using Microsoft Windows Admin Center.	<a href="https://www.microsoft.com/en-us/cloud-platform/windows-admin-center">https://www.microsoft.com/en-us/cloud-platform/windows-admin-center</a>

## 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.

 **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](https://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.