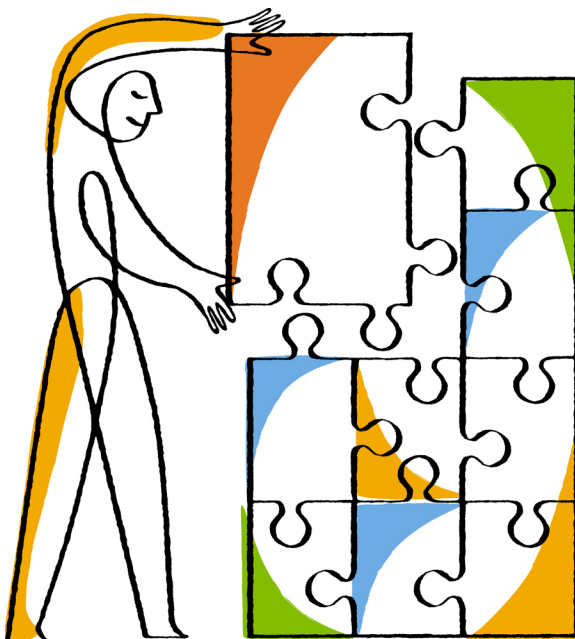




OnCommand® Plug-in 4.0 for Microsoft®

Release Notes



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New features in this release

OnCommand Plug-in 4.0 for Microsoft includes several new features and enhancements.

- Support for clustered Data ONTAP, which is only for System Center Operations Manager (SCOM)
- Support for clustered Data ONTAP for the Debug-OCHost cmdlet
- Support for the SCOM management server resource pool, providing for high availability and load balancing
Provides the option to install and uninstall the plug-in on remote management servers and add or remove the servers from the OCPM resource pool.
- Support for clustered Data ONTAP on IPv6
- Support for SCOM Consecutive Samples Monitor
- New reports for clustered Data ONTAP storage objects
- Support for discovering and monitoring clustered Data ONTAP clusters, Storage Virtual Machines (SVMs), and storage objects
- Support for discovering and monitoring SMB shares in the clustered Data ONTAP management pack
- Support for discovering and monitoring virtual machines and virtual hard disks on SMB shares in the clustered Data ONTAP Virtualization management pack
- Support for new views, including the Cluster Topology Diagram and the Storage Virtual Machine Topology Diagram, which provides the health status of all storage objects monitored in SCOM
Provides new dashboards that conform to the SCOM 2012 style.

The System Center Virtual Machine Manager (SCVMM) add-ins, Orchestrator Integration Packs (OIPs), and the cmdlets are only supported in 7-Mode environments.

Installation and upgrade requirements

Before installing or upgrading to the latest OnCommand Plug-in for Microsoft release on your storage system, you must verify the system requirements and complete some tasks.

Supported upgrade path

If you are upgrading from versions earlier than OnCommand Plug-in 3.2 for Microsoft, you must first uninstall the software and then install plug-in version 4.0.

Installing OCPM web service

You must use the same user credentials for the OCPM web service that you are using for plug-in version 3.2 when you upgrade to plug-in version 4.0.

Configuring monitoring scripts

In large environments with many storage objects, you must configure the timeout and interval values of the rules. You must override and increase the timeout and interval values of the rules to avoid a timeout occurring or monitoring scripts being dropped. You should monitor the Operations Manager event logs for script timeout issues.

Requirements for System Center Virtual Machine Manager (SCVMM) add-ins

If you are going to use the SCVMM add-ins and you have not installed Update Rollup 2 or later, then you must install the current Update Rollup for System Center 2012 Service Pack 1. You can use Windows Update to install the current Update Rollup.

If you already installed Update Rollup 2 or later but did not uninstall Update Rollup 1, then you must uninstall all Update Rollups. You can then install the current Update Rollup, using Windows Update.

Using the SCVMM Console

When you log in to the SCVMM Console, you must do so using the `run as administrator` option for all nondomain users.

Where to find information about OnCommand Plug-in for Microsoft system requirements

Before you install the plug-in, you should ensure that your storage system conforms to the software, hardware, and operating system requirements by reviewing the online Interoperability Matrix.

For the most current software, hardware, and operating system requirements, see the Interoperability Matrix at support.netapp.com/matrix.

Related information

[Microsoft Support Site](#)

Fixed issues

This release of OnCommand Plug-in for Microsoft includes product fixes that you should know about. In many cases, there is a workaround if an issue cannot be resolved.

Disconnect and remove storage can take up to six minutes to complete

When you attempt to disconnect and remove storage in a Windows 2012 environment, the operation can take up to six minutes if the virtual machine has a LUN.

There is a new file system, CSVFS, on Windows Server 2012. In CSVFS, when you try to dismount the CSV without cleaning up its cluster resource and dependencies, the plug-in returns an error that states `Access denied`. Therefore, to disconnect storage, the plug-in has to clean up the cluster resource and dependencies on the CSV first, before it dismounts the CSV disk, and the clean up requires more time.

This issue has been fixed in OnCommand Plug-in 4.0 for Microsoft.

Limitations of the plug-in

You should be aware of certain features that are not supported or have limited support in OnCommand Plug-in 4.0 for Microsoft.

OnCommand Plug-in for Microsoft

You should be aware of the following limitations when using the plug-in:

- Plug-in version 4.0 supports cluster configurations up to eight nodes.
- To manage Storage Virtual Machines (SVMs), the management LIFs for SVMs monitored by the plug-in must have data for the LIF role and none for the data protocol.
- SMB shares are not supported in Data ONTAP for 7-Mode environments.
- Plug-in version 4.0 does not support Infinite Volumes, but the discovery task does discover all the properties of the Infinite Volumes just as it does for the FlexVol volume. You can find Infinite Volume objects in the following views:

Volumes view	The Aggregate column remains empty for Infinite Volumes.
SMB Permissions view	Displays permissions for an SMB share created on an Infinite Volume.
SMB Server view	Displays any SMB servers created on a Storage Virtual Machine (SVM) with an Infinite Volume.
SMB Shares view	Displays any SMB shares created on an Infinite Volume.
Hyper-V Virtual Hard Disks on SMB shares view	Displays the virtual machines created on an SMB share with an Infinite Volume.

- The Virtual Hard Disk Volume Autogrow Monitor, Virtual Hard Disk Volume Snapshot Autodelete Monitor, and Virtual Hard Disk Volume Dedupe Monitor display a `Warning` state for Infinite Volumes because they do not support Snapshot autodelete, volume autogrow, and deduplication.
- The Virtual Hard Disk SMB Share Configuration Monitor displays a `Critical` state if the SMB share includes a virtual machine because you cannot create continuously available VMs on an Infinite Volume.
- To avoid false alerts, you can disable the rules for Storage Virtual Machines (SVMs) that contain Infinite Volumes.

System Center Operations Manager (SCOM)

You should be aware of the following limitations when using SCOM:

- Alerts are not generated for the following:
 - SMB Latency Monitor

- Average Processor Utilization Monitor
- CPU Resource Utilization Monitor
- Remote procedure call protocol for communicating with storage systems is not supported.
- Monitoring and resolution of heartbeat alerts is not supported. For more information about troubleshooting and resolving heartbeat alerts, see the Microsoft TechNet web site.
- For SCOM views in the plug-in, the optimal screen resolution is 1680 x 1050 or higher and the minimum screen resolution is 1280 x 1024.
At lower resolutions, you should use the Dashboard view, with the tasks pane minimized.

SCVMM add-ins

The Clone VM add-in and Clone VM from Template SCVMM add-in can clone virtual machines only to existing LUNs. These add-ins cannot clone VMs to new LUNs.

Provisioning

You should be aware of the following limitations when using the provisioning features of the plug-in:

- Connecting LUNs without partitions is not supported.
- Space is not reclaimed for deleted NTFS blocks.
- Remote procedure call protocol for communicating with storage systems is not supported.

Cloning

You should be aware of the following limitations when using the cloning features of the plug-in:

- The New-OCClone cmdlet supports inclusion of a single SCSI controller in the source virtual machine.
If you attempt to clone an unsupported case in which VHDs are connected to multiple iSCSI controllers, the VHD structure of the cloned virtual machine will not match the source virtual machine.
- The number of clones that you can create with the New-OCClone cmdlet is limited to one (under specific conditions) when you create a clone from an SCVMM template into new shared LUNs in a cluster environment.
- Sub-LUN cloning in which the source and destination are mounted on different Windows hosts is not supported.

Disaster recovery

You should be aware of the following limitations when using the disaster recovery features of the plug-in:

- Failover and failback between Windows 2008 and Windows 2012 are not supported.
- The virtual switch name on all nodes of the primary site and secondary site must be identical.
- Round-robin, many-to-one, and one-to-many replication topologies are not supported.
- Synchronous SnapMirror is not supported.

- Multipath SnapMirror relationships are not supported for disaster recovery.
- Mixed primary setups that contain both dedicated and clustered virtual machines are not supported.
- Running any other applications on the secondary site is not supported.
- Using the secondary site as the primary site is not supported.
- The ability to select a subset of virtual machines for failover or failback is not supported.
- Application-consistent restore operations on SnapManager for Hyper-V or SnapDrive for Windows are not supported.
- Configuring any virtual machine networking with DHCP is not supported.
- Disaster recovery of virtual machines that are attached to pass-through disks is not supported.
- Virtual machines that are running on storage that is not from NetApp is not supported.
- Integration of the disaster recovery solution with Hyper-V Authorization Manager is not supported.
- Networking of virtual machines after a restore operation on the secondary site is limited to system or network administrators only.
- Remote procedure call protocol for communicating with storage systems is not supported.

Orchestrator Integration Packs (OIPs)

You should be aware of the following limitations when using the OIPs:

- For LUNs that you create with System Manager or with the Data ONTAP OIP activities **Create LUN by Size** or **Clone LUN**, you cannot connect to the host using the **Connect Storage to Host** activity.

You must use disk management to explicitly partition and format the LUN.

Related information

[*Microsoft TechNet web site*](#)

Known issues

It is a good practice to be aware of known issues for OnCommand Plug-in for Microsoft and, when available, their workarounds, so that you can use the product more effectively.

Error in clustered Data ONTAP API causes discovery of some storage shelves to fail

The discovery task reports an error in the `OC.Cluster.OM.Server.Discovery.StorageDiscovery.DiscoverStorage` API because the storage shelf environment API in clustered Data ONTAP does not return the necessary details for some shelves.

When this error occurs, some storage shelves might not be discovered by the plug-in. This error appears in the discovery task status but the remaining discovery process completes successfully.

This issue has been fixed in clustered Data ONTAP 8.2P4 and later versions.

Monitoring scripts continue to run for storage systems that have been removed from SCOM

After you remove a storage system running clustered Data ONTAP from System Center Operations Manager (SCOM), the monitoring scripts continue to run and fail for the system that has been removed.

If any script runs between the time that you remove the storage system and discovery ends then the script might fail, resulting in failed script events in the Eventvwr.

Alert does not include the value of the average latency

If you change the threshold value of the LUN Average Latency Monitor, an alert is correctly generated but does not include the value of the average latency that triggered the alert.

The alert description contains the following message:

```
LUN /vol/VOLvmHost121_B/o121_ggg on storage virtual machine null has nullms average latency.
```

Workaround: You can view the performance data for the monitor in the LUN Average Latency view.

Disconnect-OCStorage cmdlet might fail if a LUN is missing the serial number

The Disconnect-OCStorage cmdlet sometimes fails if a LUN is missing the serial number.

Workaround: If you are unable to disconnect a LUN from the specified host system or server, you must first take the LUN offline before you run the Disconnect-OCStorage cmdlet. You can take the LUN offline by typing the following command: `Set-Disk -IsOffline $True`.

Errors occur after you install the Update Rollup for SCVMM

Errors occur after you install the Update Rollup for System Center Virtual Machine Manager (SCVMM) Console, causing you to not be able to import any of the add-ins to the SCVMM Console.

Workaround: For more information about SCVMM Console errors, see Microsoft Knowledge Base article 2785682.

Related information

[Microsoft KB article 2785682 Description of Update Rollup 1 System Center 2012 Service Pack 1 - support.microsoft.com/kb/2785682](http://support.microsoft.com/kb/2785682)

Some of the views always appear to be loading data

Some of the views in System Center Operations Manager (SCOM) always appear to be loading data for the discovered storage objects.

Workaround: Right-click any of the views that are loading and click **Personalize View > Reset to Default**.

VIM web service configuration file not updated when upgrading OnCommand Plug-in for Microsoft

If you upgrade to OnCommand Plug-in 4.0 for Microsoft using the **Modify** option in the installation wizard, this option does not update the `vim.webservice.config` file, and any information that you provide during the upgrade, such as the Virtual Infrastructure Management (VIM) service port number, user credentials, and database name and port number, are not saved.

Workaround: You must uninstall your current plug-in and then reinstall plug-in version 4.0 if you need to change the web service or OnCommand Plug-in for Microsoft database configuration.

Monitors for disconnected ports send alerts and display the health state

The Port State monitor for a port that is disconnected displays alerts and events for the port. The health state displays `Critical` even though the port is not connected.

Workaround: Turn off the Port State monitor for all disconnected ports.

SCOM does not discover and monitor FCP ports for clustered Data ONTAP

System Center Operations Manager (SCOM) discovers the physical network ports but does not discover and monitor physical FCP ports, also referred to as *FCP adapters*. However, you can monitor FCP connectivity using the LIFs created using an FCP port in SCOM.

Since an FCP LIF displays a `Critical` state if the FCP port the LIF is using fails, you can use the LIF to monitor the FCP port. The FCP data protocol LIFs that are created in Storage Virtual Machines (SVMs) using an FCP port are discovered and monitored in SCOM.

OnCommand Plug-in for Microsoft add-in for SCVMM Console fails to clone to a remote host that has only the SCVMM Console

An error occurs if you attempt to use the Clone VM from Template add-in to clone from a template to a remote host that has the template and System Center Virtual Machine Manager (SCVMM Console) only.

The plug-in returns the following error:

```
TemplateCloneEngine: Clone failed because Get-SCVMHostCluster thrown an
exception reason = you cannot access VMM management server... (Error ID
1604)
```

Workaround: To avoid this error, complete the following steps:

1. Log in to the remote machine on which both the template and the remote SCVMM Console are located.
2. Invoke the SCVMM Console and connect to the SCVMM server.
3. Pick the host on which the template resides.
4. Invoke the Clone VM from Template add-in on the local host.
5. Return to the SCVMM server and try to perform remote operations on the console-only machine.

Object Deleted error returned after check-in to SCVMM

OnCommand Plug-in for Microsoft add-ins for System Center Virtual Machine Manager (SCVMM) Console might show an Object Deleted error after you attempt to check them in to the SCVMM Console. The Object Deleted error is displayed whenever the plug-in fails to find the result object in the cache.

Workaround: You can disregard the error message because the add-ins are checked-in successfully.

SCOM management pack-related event filters might take time to appear in Eventvwr

The Data ONTAP management pack and Data ONTAP virtualization management pack filters might not be operational immediately following the installation of version 4.0 of OnCommand Plug-in for Microsoft.

Filters take effect only after at least one event of each type is logged.

Workaround: None

Documentation corrections and additions

It is important that you note information that should be added to or changed based on new or improved functionality not available at the time of the most recent publication of the *Installation and Administration Guide* and the *Windows PowerShell Cmdlet and Orchestrator Activity Reference Guide*.

Installation and Administration Guide changes

Adding a storage system

Add the following information to Step 5:

- If you are adding a storage system using an IP address, it must be a management LIF. Otherwise, adding a storage system fails with an error. Communication with the storage system uses HTTPS.

List of OnCommand Plug-in for Microsoft monitors for cluster environments

The following monitors in the clustered Data ONTAP management pack are disabled by default:

- Disk Data Read (Gbps) Monitor
- Disk Data Written (Gbps) Monitor
- FCP Read Operations/sec Monitor
- FCP Write Operations/sec Monitor
- HTTP Operations/sec Monitor
- iSCSI Read Operations/sec Monitor
- iSCSI Write Operations/sec Monitor
- LIF Network Data Received (Gbps) Monitor
- LIF Network Data Sent (Gbps) Monitor
- Node Disk Data Read (Gbps) Monitor
- Node Disk Data Written (Gbps) Monitor
- Node HTTP Operations/sec Monitor
- Node NFS Operations/sec Monitor
- Storage Virtual Machine (SVM) FCP Read Operations/sec Monitor
- Storage Virtual Machine (SVM) FCP Total Operations/sec Monitor
- Storage Virtual Machine (SVM) FCP Write Operations/sec Monitor
- Storage Virtual Machine (SVM) iSCSI Read Operations/sec Monitor
- Storage Virtual Machine (SVM) iSCSI Write Operations/sec Monitor
- Storage Virtual Machine (SVM) Network Data Received (Gbps) Monitor
- Storage Virtual Machine (SVM) Network Data Sent (Gbps) Monitor
- NFS Operations/sec Monitor
- SMB Server Operations/sec Monitor

**List of
OnCommand
Plug-in for
Microsoft monitors**

The following monitors in the base management pack are disabled by default:

- Aggregate Available Space (MB) Monitor
- Controller CIFS Operations Per Second Monitor
- Controller Critical Trap Monitor
- Controller Disk Data Read Monitor
- Controller Disk Data Written Monitor
- Controller FCP Operations Per Second Monitor
- Controller HTTP Operations Per Second Monitor
- Controller Informational Trap Monitor
- Controller iSCSI Operations Per Second Monitor
- Controller Network Data Sent Monitor
- Controller Total Operations Per Second Monitor
- Controller Warning Trap Monitor
- Network Data Received Monitor
- NFS Operations Per Second Monitor
- Volume Available Space (MB) Monitor

Windows PowerShell Cmdlet and Orchestrator Activity Reference Guide changes

**Windows
PowerShell
execution policies
and administration
profiles**

Add the following information to PowerShell execution policy values:

- The OC.Cmdlets.ps1 module is not signed and is blocked from being imported if you set the Windows PowerShell execution policy to **AllSigned**. To be able to run cmdlets from Windows PowerShell, you must use the set-executionpolicy cmdlet to set the execution policy to **RemoteSigned**, **Bypass**, or **Unrestricted**.

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