

OnCommand® Plug-in 3.1 for Microsoft®

Release Notes

NetApp, Inc.
495 East Java Drive
Sunnyvale, CA 94089 USA
Telephone: +1 (408) 822-6000
Fax: +1 (408) 822-4501
Support telephone: +1 (888) 463-8277
Web: www.netapp.com
Feedback: doccomments@netapp.com
Part number: 215-06930_A0 ur002

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New features in the plug-in

The 3.1 release of OnCommand Plug-in for Microsoft introduces support for System Center 2012 and offers new features to assist you in Data ONTAP storage management.

The following new features have been added to the plug-in:

- **System Center 2012**
 - Provisioning, cloning, and disaster recovery cmdlet and activity support for System Center 2012
- **System Center Operations Manager (SCOM)**
 - Support for SCOM 2012
- **System Center Virtual Machine Manager (SCVMM)**
 - Support for virtual machine template cloning on SCVMM 2012
- **Storage System cache credential cmdlets**
 - Cmdlets and activities that you use to add storage systems to storage systems cache
- **Data ONTAP Toolkit Integration Pack**
 - Activities that allow you to invoke Data ONTAP commands from System Center Orchestrator

Limitations of the plug-in

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

- **System Center Operations Manager (SCOM)**
 - Hyper-V hosts with VHDs on LUNs that are mounted using the volume GUID cannot be monitored for VHD misalignment.
 - Remote procedure call protocol for communicating with storage systems is not supported.
 - For System Center Operations Manager (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 view the Dashboard view with the tasks pane minimized.
- **Provisioning**
 - 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**
 - For Sub-LUN cloning, the following limitations exist:
 - Sub-LUN cloning across volumes is not supported.
 - Sub-LUN cloning in which the source and destination are mounted on different Windows hosts is not supported.
 - 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.
 - Template cloning on a remote host or cluster on new cluster shared volume (CSV) with `nc>1` is not supported.
- **Disaster recovery**
 - Round-robin, many-to-one, and one-to-many replication topologies are not supported.
 - Synchronous SnapMirror is not supported.
 - 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.
 - The usage of 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, such as DHCP, is not supported.

- The 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**
 - For LUNs that you create with the 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 - OCStorage cmdlet.
You must use disk management to explicitly partition and format the LUN.
 - See the previous lists for provisioning, cloning, and disaster recovery issues related to Orchestrator integration packs.

Troubleshooting

You should be familiar with certain OnCommand Plug-in for Microsoft issues and their causes so that you can solve problems with consoles, storage controllers, and performance and resource optimization.

PRO tip descriptions might not fit in the width of the PRO tip window in SCVMM

Description The PRO tip description might be too long to fit in the width of the PRO tip window in SCVMM.

Corrective action Use the `Get-PROTip` cmdlet to view the full description of the PRO tip. For example:

```
Get-PROTip | where {$_.Status -eq "Active" -and $_.Name -eq  
"Data ONTAP Thin Provisioning LUN Space Reservation  
Enabled" }
```

Hyper-V hosts might take up to four hours to appear in SCOM

Description Hyper-V hosts that are managed by the System Center Virtual Machine Manager (SCVMM) server with Hyper-V Virtual machines that have Hyper-V Snapshot copies associated with them might take up to four hours to appear in System Center Operations Manager (SCOM) after you run Data ONTAP: PRO Discovery for the first time.

Corrective action None needed; the hosts appear in SCOM within four hours

Storage connection operations check if MPIO is installed and if multiple sessions are present

Issue Storage connection operations fail and request multi-path I/O (MPIO) regardless of whether the multiple initiators belong to the same or different hosts.

Cause	If the node where you are running the <code>New-OCStorage</code> or the <code>Connect-OCStorage</code> cmdlet does not have MPIO enabled and you try to specify more than one FCP initiator to the <code>InitiatorName</code> parameter, the storage connection operation fails.
Corrective action	Do not use the <code>InitiatorName</code> parameter when you provision new storage or when you connect LUNs to a host that has multiple FCP initiators. When two FCP initiators are enabled from each host (which does not have MPIO enabled and for which we do not provide any FCP initiators) the plug-in selects one FCP initiator from each node by default and succeeds in creating the cluster disk.

Error (10608) Cannot create a highly available virtual machine

Message	The following error message appears in the System Center Virtual Machine Manager (SCVMM) 2012 Job Status window. Error (10608) Cannot create a highly available virtual machine because Virtual Machine Manager could not locate or access \\?\Volume{47b16511-a9dd-4079-87bb-89ca6620cfc5}\. Recommended Action Ensure that the path exists and that the path is for a cluster disk in available storage, and then try the operation again.
Description	If you want to use an SCVMM template to create one new shared disk and clone three new virtual machines into that new shared disk, you can run the following script: <pre>New-OCClone -Verbose -BaseVMName TestNWSHRD -VMMServer ocpmh3 -Template Win2K8R2SP2EE_High -AllInSingleLUN -NumberOfClones 3</pre> The cmdlet succeeds in creating the new shared disk and also succeeds in creating the first virtual machine into the new shared disk, but it fails to create the remaining two virtual machines and SCVMM returns an error.
Corrective action	If you want to clone multiple virtual machines into one single LUN, use the <code>-CSV</code> parameter along with the <code>-AllInSingleLun</code> parameter to create one new single CSV LUN and then clone all the virtual machines into it. If you want to clone multiple virtual machines into new shared disks, do not use the <code>-AllInSingleLun</code> parameter, because it creates one new LUN for each virtual machine.

New-OCClone cmdlet fails when cloning one virtual machine to each new LUN for more than 255 virtual machine clones

Issue	The New-OCClone cmdlet fails when you try to clone one virtual machine into one each new LUN for more than 255 virtual machine clones.
Cause	When you try to clone more than 255 virtual machines into one single LUN, the clone operation is successful. But when you try to clone each virtual machine into one single new LUN, then the cmdlet fails because of a limitation on the host side. The limitation states that for each target, Windows supports 254 LUNs.
Corrective action	• If you want to clone all the virtual machines into an existing LUN, you must use the MountPoint parameter to point to the existing LUN. • If you want to clone all the virtual machines into a new LUN, you must use the AllInSingleLun parameter so that all the virtual machines are cloned into one new LUN.

New-OCClone cmdlet fails to attach VHD files if the display MUI language is different from the operating system language

Issue	On non-English versions of Microsoft Windows 2008 R2, you should not use the multilingual user interface (MUI) to change the display languages, current culture settings, or locale from those of the native operating system. Hyper-V virtual machine internal strings do not update consistently when the display languages are changed.
Corrective action	Avoid changing the MUI settings on internationalized versions of Microsoft Windows 2008 R2.

Set-OCStorageSize cmdlet has issues with resizing the disks without MPIO

Issue	The Set-OCStorageSize cmdlet fails to resize the LUNs with multipath network I/O (MPIO) if you create the LUNs before MPIO is installed.
--------------	--

- Corrective action** Create and resize the LUNs under the same MPIO configuration. You should use one of the following two processes to resize your LUNs:
1. With MPIO installed, create a new LUN and resize the LUN.
 2. Without MPIO installed, create a new LUN and resize the LUN.

New-OCStorage cmdlet fails with unspecific error when you try to use an existing "ResourceName"

Message An Unexpected Error occurred while adding disk to the Cluster

Corrective action Create a new ResourceName value when provisioning or connecting a LUN to the host.

Remove-OCVM and Reset-OCDRSite cmdlets do not remove the virtual machine record from SCVMM 2012

Issue Neither the Remove-OCVM nor the Reset-OCDRSite cmdlets remove the virtual machine record from the SCVMM 2012 VMs and Services view. You must manually delete the record.

Corrective action To manually delete the record, perform the following steps:

1. Go to the VMs and Services view in System Center Virtual Machine Manager.
2. Select the appropriate cluster or host.
A list of virtual machines appears. The status of the virtual machine is "missing."
3. Right-click the name of the appropriate virtual machine and select **Delete**.

Reset-OCDRSite leaves behind a virtual machine that was on a drive

Issue When you run the Reset-OCDRsite cmdlet with the -Force and -Full parameters, it should remove all virtual machines and LUNs that are in the disaster recovery plan from the secondary site. But when virtual machines are on mount

points, sometimes the virtual machine configuration file and the cluster resource are not deleted, although the LUNs are removed.

**Corrective
action**

Go to the Failover Cluster Manager window and manually delete any virtual machine cluster resource associated with the deleted virtual machine. This removes both the virtual machine cluster resource and the virtual machine configuration file.

The root\MSCluster namespace is marked with the RequiresEncryption flag

Message The root\MSCluster namespace is marked with the RequiresEncryption flag. Access to this namespace might be denied if the script or application does not have the appropriate authentication level. Change the authentication level to Pkt_Privacy and run the script or application again.

Description

This event log message occurs in OnCommand Plug-in for Microsoft 3.1 for Hyper-V because the plug-in sets the authentication level each time a call is made to Windows Management Instrumentation (WMI). The plug-in uses packet privacy as the authentication level. If the plug-in receives this warning, the application modifies the authentication level temporarily and sets it to packet privacy.

**Corrective
action**

No corrective action is needed. This message can be safely ignored.

Known issues

You should be familiar with certain known issues in the 3.1 release of OnCommand Plug-in for Microsoft.

System Center Operations Manager issues

You should be aware of certain issues related to the System Center Operations Manager (SCOM).

Cmdlets disabled from the installer for operating systems other than Windows 2008 R2

Description The cmdlets feature is available only in the Windows 2008 R2 operating system. It is disabled by default in other operating systems.

Data ONTAP PRO: Hyper-V Host VHD Alignment shows "unknown" in the description

Issue The Data ONTAP PRO: Hyper-V Host VHD Alignment PRO Tip description might list the disk types of VHDs as unknown even though they are known in System Center Operations Manager (SCOM). Only fixed type VHDs are supported; you can find these by looking at the Hyper-V VHDs view in SCOM.

Data ONTAP IP objects show success even when the operation fails

Issue Some Orchestrator activities, such as **List LUN Info**, **List Aggregate Info**, and **List Volume Info**, can return more than one output value, which can cause a mixed-result state (for example, error, success, success). Therefore, the plug-in returns the successful published data and the errors are exposed in the Result status and Result message fields.

The maximum number of LUNs that you can map to an IQN is 255

Description The maximum number of LUNs that you can map to an iSCSI qualifying name (IQN) is 255 because the maximum number of LUNs that the Windows operating system can discover for an initiator and target is 255.

The New-OCStorage, Connect-OCStorage, and New-OCCLone cmdlets map LUNs to the IQN for iSCSI and if any of the LUNs are mapped to an ID that is higher than 255, the operating system does not allow them.

Preferred web service port is the one configured by installation

Issue The preferred port number to use for all cmdlets, System Center Operations Manager, and Orchestrator functions is the port number value that is retrieved from the configuration reader file and stored in memory during installation.

Microsoft VBScript runtime error: ActiveX component cannot create object

Message Microsoft VBScript runtime error: ActiveX component can't create object: 'NetApp.OM.Server.Discovery.StorageDiscovery'

Description When you try to run the discovery task on a server that does not have the plug-in installed, the plug-in returns a standard error (StdErr).

Provisioning issues

You should be aware of certain issues related to provisioning.

Delete virtual machine object cleanup is incomplete

Issue If you have data for multiple virtual machine configurations in one common virtual machine folder, the Remove-OCVM cmdlet and the Delete VM from Host Orchestrator activity do not remove the virtual machine folder; they remove only the associated virtual machine configuration files and VHD.

Error: For template cloning in cluster environment, clones can only be created on an existing CSV

Message Error: For template cloning in cluster environment, clones can only be created on an existing CSV or into a new shared disk for each clone.

Description This incorrect error message occurs when you attempt to create a new clone with the New-OCClone cmdlet and you provide a non-existent drive letter as the mount point, no server name is given, and the available storage is not owned by the node executing the cmdlet.

The error message should read, Reason: Cannot provision cluster storage on a node that does not have ownership of the available storage resource group. OCPM161-70 is the current owner for the available storage group.

Cloning Issues

This section contains issues related to cloning.

New-OCClone operation fails when the template is on a pass-through LUN

- Message** TemplateCloneEngine::Clone: ValidateVHDDiskPaths failed reason Validate VHD path found that following VHD paths are not on NetApp LUN
- Description** When a System Center Virtual Machine Manager (SCVMM) template is on a library share residing in a pass-through LUN that is connected to a virtual machine, the New-OCClone cmdlet fails with a TemplateCloneEngine error.

Clone NTFS File activity executed from non-owner node causes working non-HA virtual machines to go into critical state

- Issue** When the Virtualized Infrastructure Management (VIM) web service server does not own the available storage, the **Clone NTFS File** activity changes the ownership of the available storage to the VIM web service server. This causes the non-HA virtual machines that are on the cluster disks under the available storage to go into critical state.

Error: For template cloning in cluster environment, clones can only be created on an existing CSV

- Message** Error: For template cloning in cluster environment, clones can only be created on an existing CSV or into a new shared disk for each clone.
- Description** This incorrect error message occurs when you attempt to create a new clone with the New-OCClone cmdlet and you provide a non-existent drive letter as the mount point, no server name is given, and the available storage is not owned by the node executing the cmdlet.

The error message should read, Reason: Cannot provision cluster storage on a node that does not have ownership of the available storage resource group. OCPM161-70 is the current owner for the available storage group.

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 publication of the *Installation and Administration Guide* and the *PowerShell Cmdlet and Orchestrator Activity Reference Guide*.

Installation and Administration Guide changes

- You should change the following information in the disaster recovery plan guidelines section:
 - Run the New-DRPlan cmdlet on Site A.
 - Run the Update-OCDRPlan cmdlet (in the failover direction) on Site A.
 - Run the Update-OCDRPlan-Failback cmdlet on Site B.

If you perform the failover operation using Orchestrator, the **Create Plan** and **Update Plan** activities are executed automatically on the primary server given to the activity.

Windows PowerShell Cmdlet and Orchestrator Activity Reference Guide changes

- You should change the default value of the target server to localhost for the following activities:
 - Provision Storage
 - Resize Storage
 - Delete Storage
 - List Storage
 - Clone VM
 - Clone VM from SCVMM Template

- You should change the second paragraph of the "Description" section of the Reset-OCDRSite cmdlet topic to read as follows:

You must run the Reset-OCDRSite cmdlet on the site that you want to clean up; for example, after a failback, with the disaster recovery plan still in the failback direction, you could run Reset-OCDRSite on Site A to clean up the virtual machines.

- You should change the text that describes the -Full parameter of the Reset-OCDRSite cmdlet topic to read as follows:
When the -Full parameter is specified, all cluster shared volumes and all virtual machines are removed from the specified cluster.

The -Full parameter must be used with extreme caution, because it removes all the virtual machines and LUNs on the secondary site.

- In the "Example: Adding storage system credentials" section of the Add-OCStorageSystem cmdlet topic, you should change the Add-OCStorageSystem cmdlet to the following string:

```
Add-OCStorageSystem -StorageSystem myFileer -user myUserName -Password $myPassword -Protocol HTTPS
```

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You can also contact us in the following ways:

- NetApp, Inc., 495 East Java Drive, Sunnyvale, CA 94089 U.S.
- Telephone: +1 (408) 822-6000
- Fax: +1 (408) 822-4501
- Support telephone: +1 (888) 463-8277