

OnCommand Plug-in 3.0 for Microsoft

Release Notes

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New features in OnCommand Plug-in for Microsoft

OnCommand Plug-in for Microsoft offers new features to assist you in Data ONTAP storage management.

The following new features have been added to OnCommand Plug-in for Microsoft:

- **System Center Operations Manager**
 - LUN and VHD misalignment detection including PRO tips and reports
 - Support for virtual machines with cluster shared volumes (CSVs)
 - Discovery of virtual machines in CSVs
 - Alert and PRO tips for CSV space utilization
 - Performance view and reports for CSV space utilization
 - Agentless monitoring and discovery on Hyper-V hosts
 - Support for vFiler units
 - Discovery and monitoring of vFiler units
 - View of relationship between vFiler units and their physical controllers
 - Storage efficiency statistics at volume, aggregate, and controller level in views and reports
 - Quality of service (QoS) monitoring
 - Volume- and LUN-level statistics
- **Disaster Recovery**
 - Crash consistent disaster recovery (both failover and failback) of Hyper-V virtual machines that have data on Data ONTAP storage systems and are replicating data to remote sites using SnapMirror
 - The ability to perform disaster recovery across geographically located sites and domains
- **Provisioning and Cloning**
 - Enhanced New-OCStorage, Connect-OCStorage, Disconnect-OCStorage, and Remove-OCStorage PowerShell cmdlets to support Windows failover cluster (WFC) and CSVs
 - A new cmdlet, Resize-OCStorage, to grow or shrink the NTFS Datastore on LUNs
 - An enhanced New-OCClone cmdlet to clone an existing virtual machine that is not in a powered-on state
 - The ability to deploy virtual machines in the Windows failover cluster (WFC) and CSV environments
 - New functionality to export information on cloned virtual machines for integration with Xen Desktop
 - Functionality for virtual machine cloning in the following instances:

- From a LUN into an existing LUN on the same host
- From a LUN into a new LUN
- From a existing LUN into the same LUN

This functionality supports traditional windows LUNs or CSV LUNs within a windows cluster.

- A new cmdlet, `New-OCCloneFile`, that creates a copy of any NTFS file within the same LUN or to another LUN that is mounted on the same storage volume.

This command supports traditional windows LUNs or CSV LUNs within a windows cluster.

- **Opalis integration packs**

- Cloning and provisioning integration with Opalis through the Cloning and Provisioning integration pack
- Disaster recovery integration with Opalis through the Disaster Recovery integration pack
- The ability to create and customize workflows
- The ability to automate your data provisionsing, cloning, and disaster recovery tasks
- The ability to test disaster recovery through a disaster recovery failover simulation
- Provisioning of Data ONTAP storage on WFCs and CSVs.
- Cloning virtual machines with or without an SCVMM template on Windows LUNs or CSV LUNs and cloning NTFS files on Windows LUNs or CSV LUNs.

What you cannot do with OnCommand Plug-in for Microsoft

Some features are not supported or have limited support in OnCommand Plug-in for Microsoft.

- **System Center Operations Manager (SCOM)**
 - Support limited to installations on the root management server (RMS)
 - Remote procedure call protocol for communicating with storage systems
 - Hyper-V hosts with Fibre Channel LUNs require that the OnCommand discovery agent be installed
 - Full support for high availability
 - For non-Windows 2008 R2 SCOM server, Hyper-V hosts with LUNs that are mounted using the volume GUID require that the OnCommand discovery agent be installed
 - Hyper-V hosts with VHDs on LUNs that are mounted using the volume GUID cannot be monitored for VHD misalignment
- **Provisioning and cloning**
 - Connecting LUNs without partitions
 - Space reclamation for deleted NTFS blocks
 - Sub-LUN cloning in more than one volume
 - Source and destination (if different) are not mounted on the windows host
 - Sub-LUN cloning for volumes where deduplication is enabled
 - The number of clones that you can create limited to less than two (under specific conditions)
- **Disaster recovery**
 - The following replication topologies: round-robin, many to one, one to many
 - Synchronous SnapMirror
 - Mixed primary setups that contain both dedicated and clustered virtual machines
 - Running any other applications on the secondary site
 - The usage of the secondary site as the primary site
 - The ability to select a subset of virtual machines for failover or failback from or to the primary site or secondary site
 - Application consistent restore on SnapManager for Hyper-V or SnapDrive for Windows
 - Networking of virtual machines after a restore operation on the secondary site restricted to system or network administrators only
 - Configuring any virtual machine networking such as DHCP
 - The disaster recovery of virtual machines that are attached to pass-through disks
 - Virtual machines that are running on storage that is not from NetApp
 - Integration of the disaster recovery solution with Hyper-V Authorization Manager
- **Opalis integration packs**

- See limitations for provisioning, cloning and disaster recovery

Cannot create a virtual machine from a System Center Virtual Machine Manager template

Cloning virtual machines from an SCVMM template to put each virtual machine into a newly created cluster shared volume (CSV) is not supported due to SCVMM limitations. If you want to clone a virtual machine into a CSV, you must perform the following steps.

Steps

1. Use the `New-OCStorage` cmdlet to create a CSV of the size that is necessary to hold the specified number of virtual machines that you want to create.

```
New-OCStorage -StoragePath
```

```
lun_path_on_storage
```

```
-S
```

```
clustername
```

```
-csv -size
```

```
required_size_gb/mb
```

2. Use the `Refresh-VMHostCluster` cmdlet or use the SCVMM GUI to issue an SCVMM host or cluster refresh.

```
Refresh-VMHostCluster -VMHostCluster VMHostCluster
```

3. Use the `New-OCClone` cmdlet to clone virtual machines into the existing CSV.

```
New-OCClone -vmms
```

```
SCVMM server
```

```
-template
```

```
Template_Name
```

```
-S
```

```
cluster_name
```

```
-mp
```

```
existing_csv_reparsepoint
```

Known issues

This section contains the known issues for this release of OnCommand Plug-in for Microsoft.

Default settings and timeouts in SCVMM SSP 2.0 might limit number of simultaneous CreateVM requests

Microsoft System Center Virtual Machine Manager Self-Service Portal 2.0 service and portal have different timeout settings that might affect the success of a large number of CreateVM requests.

You can use the following settings to enable you to create large numbers of CreateVM requests:

- Portal setting - sessionState timeout
- Service setting - maxSimultaneousWorkflows
- Service setting - maxVMHostCapacity

To change the settings or timeouts, see the following Microsoft documentation:

- Virtual Machine Manager Self-Service Portal Operations Guide
- Virtual Machine Manager Self-Service Portal Administration Guide
- Virtual Machine Manager Self-Service Portal Deployment Guide
- Virtual Machine Manager Self-Service Portal Extensibility Guide

After changing the settings, you should restart the Self-Service Portal.

Related information

<http://www.microsoft.com>

The installation of OnCommand Plug-in for Microsoft results in error 1158

When you start the installation from the executable file, an error message might appear with just the error number 1158. You can try the installation again and the problem should be resolved.

If the problem persists, close any unnecessary windows that are open on the desktop. You can go to **Control Panel > Uninstall** and refresh the list of programs. You can try the installation again and the error message should not appear.

Map LUNs to igroups with type Hyper_V only

If you use the New-OCStorage, Connect-OCStorage, or New-OCClone cmdlets to map LUNs to igroups that contain host initiators with a type other than Hyper_V, an error is returned.

To successfully run LUN mapping to the host initiator task, you must change the igroup type to Hyper_V.

If you have mapped any other LUNs to igroups with a type other than Hyper_V you must first delete the mappings and then change the type to Hyper_V.

If you have not mapped any LUNs to igroups with a type other than Hyper_V, you can delete the igroup and try the operation again.

PowerShell execution policy set to Allsigned causes New-OCClone cmdlet to fail

If you use the PowerShell Allsigned execution policy with the New-OCClone cmdlet, it will fail. You can import the Microsoft System Center Virtual Machine Manager (SCVMM) certificate as a Trusted Publisher to avoid this error.

There is a dependency in the SCVMM PowerShell cmdlets to retrieve the list of virtual machines. To use the recommended execution policy of Allsigned to retrieve the list of virtual machines, you must import the SCVMM certificate. For more information on importing a certificate, see the Microsoft TechNet Web site.

Related information

<http://www.microsoft.com>

New-OCClone cmdlet might leave free space

The New-OCClone cmdlet might leave free space when you create or clone a new LUN for a virtual machine. If the free space is larger than 8 MB, it shows up in the Disk Management view.

When you create or clone the LUN, the full space is not used in the partitioning and formatting of the LUN. You can leave the space as it is, and the cmdlet still performs correctly.

New-OCClone cmdlet fails on vFiler units using Data ONTAP versions earlier than 7.3.3

The use of vFiler units is only supported when using Data ONTAP version 7.3.3.

Running provisioning and cloning cmdlets as a user other than built-in administrator

You can avoid running the provisioning and cloning cmdlets as the built-in Windows administrator and run them as a user in the Administrators group.

Before you begin

You must have installed the provisioning and cloning cmdlets.

Steps

1. Open the Windows **Start** menu.
2. Select **Run** and type `secpol.msc` and click **OK**.
3. From the **Local Security Settings** window, click **Local Policies** and then **Security Options**.
4. Double-click **User Account Control: Run all administrators in Admin Approve Mode**.
5. Select **Disabled** and click **OK**.
6. Close the **Local Security Settings** window.
7. Restart the Windows host.

Result

After you restart the Windows 2008 R2 server, you can run the provisioning and cloning cmdlets without being the Windows built-in administrator.

PRO discovery rules should run less frequently than monitoring rules

You should not change the default values of discovery rules, but if you do change them, they should run less frequently than the monitoring rules.

OC.SC.COM.log rolls over into multiple logs

OC.SC.COM.log rolls over into multiple logs because log4net cannot log multiple processes simultaneously. The OC.SC.COM.log normally gets created based on its size, when it has reached 10MB in size. When a log reaches 10MB in size, it creates a new version of the log, for example OC.SC.COM.log.1, OC.SC.COM.log.2. That does not happen when multiple processes are logging at the same time.

If multiple processes are running and logging to the same log file, the log file might roll over multiple times and create a new version that is very small.

The path to the executable file is missing

After you install or upgrade OnCommand Plug-in for Microsoft, your system might fail with the error

%OCSCOMPATH%/executable.exe not found

when you execute tasks such as discovery, adding and removing controllers, or managing controller credentials. The error is caused because the installer path environment variable has not taken effect in System Center Operations Manager (SCOM) and the path to the executable file is missing.

The following list includes possible workarounds:

- During installation, keep the SCOM console closed. If the console was open during the installation, after installation has finished, close the SCOM console and reopen it.
- Run the SCOM console with the clear cache command: `Microsoft.MOM.UI.Console.exe / ClearCache`
- Log-off and then log-on to the system and reopen SCOM

Change log mechanism to log errors in a log file instead of in windows event log

The debug log file for System Center Operations Manager is `oc.scom.log`, which is used to prevent error log information from being deposited in the Windows event log.

If you need to change the default debug log settings, you can edit the settings in `oc.common.library.logsettings`.

There is no change to the logging behavior for MetroCluster.

Cloning LUN to a cluster fails because VDS DiskOnline fails

When you use the `Connect-OCStorage` cmdlet to clone a LUN to a cluster, the operation fails because VDS DiskOnline fails.

The system limits the number of clones to one when a cluster name is given for the `Server` parameter and neither the `AllInSourceLun` nor `AllInSingleLun` parameter is specified.

Xen Desktop import failure - Hostnames of virtual machines are not changed from the source virtual machine name

Clones need to have unique names in Hyper-V manager. If the hostname of a newly cloned server is the same as the source virtual machine, the server name is not changed and therefore not unique, which causes the Xen Desktop import to fail.

About this task

You can use the tool that is indicated for your operating system to change the hostname:

- For Windows 2003, Windows XP, and older operating systems, you can use `sysprep.exe` to sysprep your VHDs.
- For Windows 7, Windows Vista, Windows 2008, and newer operating systems, you can use Windows Installation Kiet (AIK) to sysprep your VHDs.

The source VHD and source virtual machine configuration must be on a LUN from Data ONTAP Storage.

Sysprep the VHD that is attached to the virtual machine. The virtual machine is in an `off` state after you attach the VHDs that have been sysprepped.

For detailed information on how to sysprep Windows XP and Windows 7, see the Microsoft TechNet site.

SCOMvONTAP VOL view: Projected savings vs. current savings

In certain cases, the calculation for projected savings can actually be less than the current savings.

If there is a figure for current savings shown and the disk is only partially utilized, then the projected savings should be greater.

For clarification, the three savings metrics are defined as follows:

Current Savings:	An estimate of how much space is being saved due to deduplication and cloning.
Projected Savings:	An estimate of how much space will be saved in the future due to deduplication while taking into account overhead for space reserves. Note that this can be less than your current savings in some cases.
Storage Efficiency:	An estimate of how efficiently space is saved based on your current and projected savings.

Installer cannot find SCOM RMS server

OnCommand Plug-in for Microsoft, when it is installed on a clustered System Center Operations Manager (SCOM) RMS setup, should be installed on the owner node of the SCOM cluster, where the System Center Data Access service runs.

If OnCommand Plug-in for Microsoft is installed on the SCOM non-owner node, the installer cannot find the Data Access service and returns the following error message,
SCOM RMS server not found

.

Virtualization discovery is not working

The virtualization discovery Web service from the System Center Operations Manager (SCOM) host to the Hyper-V host completes successfully but there are no values in the virtualization folder in SCOM.

To resolve the issue, you must perform two short procedures, the upgrade procedure and then the fix procedure.

1. The upgrade procedure:
 - a. Install ApplianceWatch PRO on a Hyper-V server that has SCOM installed (Machine 1).
 - b. Install SCOM on another machine and add the same Hyper-V server (Machine 2).

- c. Run virtualization discovery.
The procedure does not produce any values in the virtualization folder.
- 2. The fix procedure:
 - a. Install OnCommand Plug-in for Microsoft on the first Hyper-V Server (Machine 1) and uninstall it if it is not required.
 - b. Install OnCommand Plug-in for Microsoft on the new SCOM Server (Machine 2).
 - c. Run virtualization discovery.
The procedure produces values in the virtualization folder.

The controller is displayed more than once in the Manage Controller Credentials view

If you use **Add Controller** from the Tasks pane to add the same controller with two different IP addresses, the controller is displayed twice in the Manage Controller Credentials view.

To avoid adding controllers that are already monitored by System Center Operations Manager (SCOM) , during an upgrade, you must first run the discovery task to discover all controllers and network devices that are being monitored then you can add any new controllers.

Silent Install does not function properly

The silent installation procedure should install all the modules of OnCommand Plug-in for Microsoft along with the documentation by default. Currently, the silent installation procedure installs the cmdlets and documentation but does not install any other component and does not upgrade from 2.1.1.

You can use the following workaround.

If you use the `AddLocal` parameter with a value other than `AddLocal=All`, the installer installs only those components that you indicated. To install any additional components later, you must first uninstall and then reinstall OnCommand Plug-in for Microsoft and indicate, with the `AddLocal` parameter, the specific component that you want to install.

Adding an SCVMM host to XenDesktop Studio

When you add an SCVMM host to XenDesktop Studio, the connection name must be specified as MSvSCVMM.

[new-ocstorage] if a node & filer > 5 min clock skew -> new-ocstorage -csv results in dedicated disk

TBD

System Center Operation Manager crashes when OnTap Discovery task is run

TBD

DRPlan folder does not contain all the virtual machine config files

TBD

The Virtual Infrastructure Management Service (VIMS) service on local computer started and then stopped

TBD

DRfailover fails with this error:

UpdatedRPlan returned a generic failure

TBD

New and changed cmdlets

OnCommand Plug-in for Microsoft contains several new and changed commands. You need to be aware of these new and changed commands to effectively use the command line interface.

Documentation corrections and additions

This section contains information that has been added or corrected.

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