



OnCommand® Plug-in 4.1.2 for Microsoft®

Release Notes

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Updates to these release notes

NetApp occasionally issues updates to release notes between product releases as new information becomes available. Review these updates carefully.

November 2016 update

New support enhancements were added to the “New in this release” section:

- Support for ONTAP 9 and 9.1 family releases
- Support for Windows Server 2016
- Support for Microsoft System Center 2016 Operation Manager
- Support for ONTAP MCC 1x1 node configuration (new in ONTAP 9.0)

The following BURT's were added to the “Fixed issues” section:

- 867580
- 931188
- 967480

The following BURT's were removed from the “Known issues” section:

- 867580

OnCommand Plug-in for Microsoft has dropped support for the following features:

- 7-Mode Management Packs for Microsoft System Center 2012 Operation Manager
- 7-Mode Virtualization Management Pack for Microsoft System Center 2012 Operation Manager
- Plug-ins for Microsoft System Center 2012 Virtual Machine Manager
- Integration packs for Microsoft System Center Orchestrator
- OnCommand Plug-in for Microsoft Windows PowerShell cmdlets

Product overview

You can use OnCommand Plug-in for Microsoft to configure, monitor, and maintain your storage. The plug-in includes management packs for Microsoft System Center Operations Manager (SCOM) 2012 SP1, SCOM 2012 R2, and SCOM 2016.

New in this release

OnCommand Plug-in 4.1.2 for Microsoft includes support enhancements, performance improvements, and bug fixes.

- Support for ONTAP 9 and 9.1 release family
- Support for Windows Server 2016
- Support for Microsoft System Center 2016 Operation Manager
- Support for ONTAP MCC 1x1 node configuration (new in ONTAP 9.0)
- Bug fixes

Fixed issues

It is a good practice to review the known issues fixed in a new release before upgrading to it. If a Bugs Online report is available, the bug ID contains a hyperlink to the report.

Bug ID	Description
967480	When the LUN path in one of the controllers has more than 255 characters, the discovery task fails with the exception from the 'ONTAPDiscovery.vbs' script.
931188	When the default path <code>C:\ClusterStorage\Volumee</code> for the clone destination volume is followed by any non-integer characters, it causes new-OCCloneFile to fail with the following error: “Destination location does not have enough space available to complete the clone request”
867580	The ONTAP operating in discovery task fails with the exception: ONTAP discovery - caught exception during commit.
813108	Misleading error message when trying to add a 7-Mode storage controller using the clustered Data ONTAP: Manage Storage System task.
824916	OnCommand Plug-in for Microsoft 4.1.1 introduced three optional Run As profiles: Data ONTAP: Discovery and Monitoring Account, Data ONTAP: Discovery and Monitoring for Virtualization Account, and Data ONTAP: Maintenance Account. You can now assign users with the required permissions to the Action Accounts contained in these profiles.
829268	The storage-shelf-environment-list-info ZAPI reports power supplies as not installed for 2-PSU systems.
832322	Error event ID 22406 PowerShell script failed with the error <code>LifNotFoundException: No LIFs were found with universal unique identifier (UUID)</code> .

Bug ID	Description
852506	Performance improvements were made in OnCommand Plug-in for Microsoft 4.1.1 to reduce CPU demand on SCOM management servers.
880081	To improve performance, OnCommand Plug-in for Microsoft 4.1.1 implemented an API call introduced in Data ONTAP 8.3.1 that avoids downloading unchanged data.
899056	Cannot add diagnostic or recovery tasks for ONTAP operations.
926998	The Storage Efficiency calculation is expensive, so it was removed from the discovery task and set to run once a day to improve performance. In addition, an on-demand task for running Storage Efficiency was added.

Upgrade notes

Upgrade notes describe important changes in support between the last release of OnCommand Plug-in for Microsoft and this one, including any deprecated features. You should review this information carefully before upgrading OnCommand Plug-in for Microsoft.

You should also check the NetApp Interoperability Matrix (IMT) for the most up-to-date information about supported configurations.

[NetApp Interoperability Matrix Tool](#)

Supported upgrade path

You can perform an in-place upgrade of OnCommand Plug-in for Microsoft from version 4.0.1 and later.

If you are upgrading from versions prior to 4.1.1, you must first uninstall the existing version before installing 4.1.2.

Prerequisite upgrade conditions

Before you can upgrade from an earlier supported version of OnCommand Plug-in for Microsoft, you should be aware of the following conditions:

- Before upgrading from 4.1.1 to 4.1.2, you must uninstall any management packs that include user-created overrides to OnCommand Plug-in for Microsoft management packs.
During the upgrade, all management packs from 4.1.1 are uninstalled, and the management packs from 4.1.2 are installed. This removes all customer-created overrides. Additionally, any management packs that contain dependencies on user-created management packs with overrides are blocked from the uninstall process and will block the new management pack to be imported.
- Starting with the 4.1.1 release, the OCPM Database (OCPMDB) is required for all of the management packs and cmdlet-based features.
When an upgrade is performed, the installation package detects whether the OCPMDB is present and displays an error message if it is missing (bug ID [951878](#)). If the OCPMDB was not created as part of your previous installation of OnCommand Plug-in for Microsoft, you should perform one of the following procedures to avoid encountering this issue prior to performing an upgrade to the latest version:
 - You can uninstall the existing version of OnCommand Plug-in for Microsoft and perform a fresh install.

- You can reinstall the previous version of OnCommand Plug-in for Microsoft (for example, 4.1.1) to add the cmdlets; then, perform an upgrade to 4.1.2.
If you choose this option, make sure to select “Modify” and add the “OCPM Commandlets” feature during the installation process to create the OCPMDB. After that, you can upgrade to the latest version.

After you perform one of the procedures, you should verify that the OCPMDB was successfully created by either using SQL Server Management Tools or by checking the installation log file (*OnCommand_install_dir\MS_Plugin\OCPluginMSDBLog_timestamp.txt*).

If you check the log file, look for entries such as the following:

```

OCPM database OCPMDB exists. No database created.
OCPM database table ONTAPHost exists. No table created.
OCPM database table ActivePerformanceSample was created.
OCPM database table ArchivePerformanceSample was created.
OCPM database procedure OCPMDBMaintenance was created.

```

Upgrade must be performed on the same management server as the original installation

If your SCOM environment contains multiple management servers in a management pool, you selected a specific server and were prompted to push the installation to the other servers during the original installation of OnCommand Plug-in for Microsoft.

When upgrading OnCommand Plug-in for Microsoft to 4.1.2, you must install the upgrade on the same management server as was used for the original installation of OnCommand Plug-in for Microsoft.

Post upgrade conditions

After you upgrade from an earlier supported version of OnCommand Plug-in for Microsoft, be aware of the following conditions:

- Clear cache if OnCommand Plug-in for Microsoft workflows are not running as expected.
After upgrading to or installing OnCommand Plug-in for Microsoft 4.1.2, if you notice that the workflows are not running as expected (for example, storage objects are not being discovered and monitored), then run “Flush Health Service State and Cache” for all of the management servers included in the OnCommand Plug-in for Microsoft resource pool.
- Increase data file size and transaction log file size.
When upgrading from an earlier supported version, you must manually increase the OnCommand Plug-in for Microsoft database data file size and transaction log file size. In addition, if you notice that the database is getting full, you must add more data files or increase the size. For better performance of the OnCommand Plug-in for Microsoft database, it is recommended to have 50% of the space to be free, similar to how the Operations Manager database is handled.
- If experiencing an adverse reaction due to a Data ONTAP 8.3.1 performance enhancement that was intended to improve discovery time, you can disable this feature.
Data ONTAP 8.3.1 contains a feature intended to improve discovery time; this feature avoids downloading specific storage objects information (volumes, qtree, and SMB shares) if their configuration did not change since last discovery.
If you notice that certain objects or changes to these objects are not discovered for a Data ONTAP 8.3.1 controller, then perform the following steps:
 1. Run `OC.Cluster.OM.ConfigureEffectiveDiscovery.exe`.
 2. Click **Load** to populate current settings from the SCOM database.
 3. Deselect the **Effective Discovery** setting.

4. Save and close.

- This condition is applicable only for management servers that were remotely installed: If encountering operation management event log errors related to OnCommand Plug-in for Microsoft workflows, it is recommended to locally run the 4.1.2 installer and make sure to select “Modify” and add the “OCPM Commandlets” feature during the installation process to improve the integrity of the local installation.

New profile accounts in this release

Prior to this release, all OnCommand Plug-in for Microsoft workflows used the Default Action Account. In this release, the following optional Run As profiles have been introduced that can be set to the user-created Run As profile account instead of using the Default Action Account:

- Data ONTAP: Discovery and Monitoring Account

Note: If you use this optional profile, the same privileges are required as were set for the Default Action Account.

- Data ONTAP: Discovery and Monitoring Account for Virtualization
- Data ONTAP: Maintenance Account

Data ONTAP: Discovery and Monitoring Account

This profile must have the following privileges:

Note: If you do not use this optional profile, then the Default Action Account privileges must be set using these same criteria and procedures.

- Login must be created on the SQL server and mapped to the dbo user for the OCPMDB; the **db_owner** permission is required on the OCPMDB.

Note: These requirements were configured during the installation of OnCommand Plug-in for Microsoft for the user account running the installation.
- Member of the Local Administrators group. Perform the following steps on every management server to set this permission:
 1. From the Control Panel, select **Manage User Accounts**.
 2. On the Users tab, add a new “Local Administrator” user account.
- Member of the local Performance Monitor Users group. Perform the following steps on every manager server to set this permission:
 1. From the Control Panel, select **Manage User Accounts**.
 2. On the Advanced tab, click **Advanced**.
 3. In the left pane, double-click Groups.
 4. In the middle pane, double-click Performance Monitor Users.
 5. Add the new user account.
- **Allow log on locally** permission (SetInteractiveLogonRight) on the Windows servers (hosts) that are used as the System Center Operations Manager (SCOM) management servers.
 1. From the Control Panel, select Administrative Tools and open **Local Security Settings**.
 2. In the console tree, click **Security Settings**.
 3. Under Local Policies, select **User rights Assignment**.

4. Double-click **Allow log on locally**.
 5. Click Add User or Group and add the new user account as the Action Account.
- Associated Windows profile.
This profile is set by logging on to each management server one time using the Run As Account.
 - Public server role on the OCPMDB, OperationsManager, and OperationsManagerDW databases:
 1. Open SQL Server Management Studio and connect to your SQL instance.
 2. Under Databases, expand Security.
 3. Expand Logins.
 4. Right-click the user name for the default action account and select Properties.
 5. On the left, select the Server Roles page.
 6. On the right, make sure the public server role option is selected.
 - The appropriate database role memberships (public, dbmodule_users, and either db_owner OR db_datareader, db_datawriter, db_ddladmin) on the OCPMDB, OperationsManager, and OperationsManagerDW databases:
 1. Open SQL Server Management Studio and connect to your SQL instance.
 2. Under Databases, expand Security.
 3. Expand Logins.
 4. Right-click the user name for the default action account and select Properties.
 5. On the left, select the User Mappings page.
 6. In the box on the upper right, under Users Mapped to this login, select the row for each database.
 7. In the lower left, make sure the following options are selected:
 - public
 - dbmodule_users
 - db_owner OR db_datareader, db_datawriter, db_ddladmin

Note: db_owner is required on the OCPMDB.
 - The SCOM user role of Operation Manager Operator must be set to the same Run As account as either the Data ONTAP: Discovery and Monitoring, if used, or the Default Action Account.
 1. Navigate to **SCOM > Administration > Security > User Roles > Operation Manager Operator > Add users**.
 2. Add the Run As account as the user.

Data ONTAP: Discovery and Monitoring Account for Virtualization

This profile must have the following privileges:

- All of the same permissions as the Data ONTAP: Discovery and Monitoring Account.

Data ONTAP: Maintenance Account

This profile must have all of the same permissions as the Data ONTAP: Discovery and Monitoring Account.

Related information

[Microsoft TechNet: System Center 2012 Operations - How and When to Clear the Cache](#)

Upgrading OnCommand Plug-in for Microsoft

If you have OnCommand Plug-in 4.1.1 for Microsoft installed, you can upgrade to plug-in version 4.1.2. However, if you have a version previous to 4.1.1, then you must first uninstall and then install 4.1.2.

Steps

1. From the NetApp Support Site at mysupport.netapp.com, download the OnCommand Plug-in for Microsoft executable file to a directory on your hard drive.
2. Double-click the installer icon and then click **Run** to start the installation wizard.
3. Follow the instructions in the installation wizard to install the software.
4. In the **Ready to Install** dialog box, click **Install** to begin the installation or click **Back** if you want to make any changes to the settings.
5. Click **Finish** to complete the upgrade.

Important cautions

Important cautions identify issues that could severely degrade product functionality. Review these cautions carefully.

Running virtualization discovery

After you complete a MetroCluster switchover operation, you must run the discovery task on your clustered Data ONTAP systems prior to running the virtualization discovery task.

Minimum RSA certificate key length required in Windows

If the NetApp storage controller uses a certificate with an RSA key length less than 1,024 bits, the length must be updated to meet the minimum requirements for certificates; the RSA key must be at least 1,024 bits long. This affects Windows Server 2008 R2.

Clustered Data ONTAP MetroCluster health check disabled by default

The clustered Data ONTAP MetroCluster health check features (Cluster.MetroCluster.Health and Cluster.MetroCluster.HealthMonitor) are disabled by default.

Discovery tasks might fail if servers are configured to be outside of the OnCommand Plug-in for Microsoft resource pool

In a configuration where some of the servers are configured to be outside of the OnCommand Plug-in for Microsoft resource pool, the OnCommand Plug-in for Microsoft discovery tasks might fail (bug ID [930322](#)).

The problem occurs because tasks for the OnCommand Plug-in for Microsoft discoveries are executed on the wrong management server outside of the OnCommand Plug-in for Microsoft resource pool.

The root cause for this issue is an error inside a Microsoft stored procedure that also returns servers outside of the resource pool.

The problem is unlikely to occur in stable production environments where the management servers included in the OnCommand Plug-in for Microsoft resource pool do not change. It is more likely to occur in a test environment where the OnCommand Plug-in for Microsoft is uninstalled and reinstalled in a short period of time.

The recommended workaround is to wait 48 hours until the Microsoft SCOM Service cleans up and consolidates deleted entries in the database.

There is another possible workaround; however, because this code is internal to Microsoft, it is not a recommended solution. This workaround requires you to modify one of the Microsoft System Center database stored procedures. If you cannot wait the recommended 48 hours, contact NetApp support for assistance. Microsoft plans to include a fix in an upcoming SCOM update.

The OnCommand Plug-in for Microsoft workflow

OC.Cluster.OM.Server.Monitoring.StorageMonitoring.InsertVolumePerformanceData might fail due to incorrect permissions to access the local registry on the system

If the Run As profiles and the user permissions were not set up properly on the OCPMDB, you might encounter an error that you “cannot access DB connection information” (bug ID [953933](#)).

To resolve this issue, perform the following steps:

1. Make sure that the user configured to execute SCOM and OnCommand Plug-in for Microsoft workflows has permission to read and write to the local registry (for example, the user is configured to be the “local administrator”).
2. Make sure that all of the permissions for the Run As profiles accounts and assigned users are set properly on every management server (see the “Upgrade notes” section of these Release Notes).
3. Verify that the Run As profile account > Data ONTAP: Maintenance Account contains a user configured with the “db_owner” role.
If this profile account is not configured with this type of user, then you must configure the Default Action Account with a user assigned with the “db_owner” role.
4. If any host was remotely installed with only SCOM, then run the OnCommand Plug-in for Microsoft 4.1.2 installer locally.
Make sure to select “Modify” and add the “OCPM Commandlets” feature during the installation process. This helps provide integrity of the installation in case permissions were not correct during the original installation.

Related references

[Upgrade notes](#) on page 7

Known limitations

Known limitations identify platforms, devices, or functions that are not supported by this release of the product, or that do not interoperate correctly with it. Review these limitations carefully.

Unsupported functionality

The following functionality is not supported in this release:

- Discovery and monitoring of SMB home-directory or home-directory shares

Remote cloning limitations (7-Mode only)

Note the following limitations to remotely cloning templates:

- A non-HA VM template can be cloned only from stand-alone to remote or to local stand-alone.
- An HA VM template can be cloned only from cluster to remote or to local cluster.

Monitor timeout and interval values in a large configuration

In a large configuration with many storage objects, you can configure the timeout and interval values of the rules. You can 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.

SNMP v3 cannot be used to discover hosts with SCOM MP operating in 7-Mode

By default, SCOM MP uses only SNMP v1 or v2 for network discovery, and the plug-in uses the network discovery built into SCOM. If you are using SNMP v3 and attempt to add a controller using SCOM, discovery does not find the host and the controller is not added.

ASUP reports on the clones created by OnCommand Plug-in for Microsoft

Because ASUP only works at the cluster level, to see the ASUP message for the Storage Virtual Machine (SVM), you must add the SVM parent cluster to the OnCommand Plug-in for Microsoft database.

Known issues

Known issues identify problems that might prevent you from using this release of the product successfully. NetApp Bugs Online provides complete information for most known issues, including any workarounds.

[NetApp Bugs Online](#)

If a Bugs Online report is available, the bug ID contains a hyperlink to the report.

Known issues identified in this release

The following issues have been added to the release notes since the last release:

Bug ID	Description
823846	On System Center Operations Manager (SCOM) 2012, if the device is discovered as SNMPv2, the SNMPv1 traps will not be received.
930322	If any servers are configured to be outside of the OnCommand Plug-in for Microsoft resource pool, the OnCommand Plug-in for Microsoft Discovery tasks might fail due to a known Microsoft error.
945408	Various views in SCOM appear to be constantly in the loading process when displaying discovered storage objects.
945921	Cannot manually delete OnCommand Data ONTAP Shared Library maintenance profile if there is a dependency on the Microsoft.SystemCenter.SecureReferenceOverride management pack.
951878	Database error occurred during upgrade of OnCommand Plug-in for Microsoft.

Known issues identified in previous releases

The following issues were reported in previous editions of the release notes:

Bug ID	Description
669645	OnCommand Plug-in for Microsoft add-in for SCVMM Console fails to clone to a remote host that has only the SCVMM Console.
689292	OnCommand Plug-in for Microsoft cannot set threshold levels for qtree, such as Critical and Warning, as can be set for aggregates.
707547	Disconnect-OCStorage cmdlet might fail if a LUN is missing the serial number.
725278	Monitors for disconnected ports send alerts and display the health state.
745175	Sub LUN Sis clone performance degradation: operation buffer size was reduced in OnCommand Plug-in 4.0 to prevent the Data ONTAP API from hanging.
779161	You cannot add controllers into SCOM after upgrading to OnCommand Plug-in 4.0 operating in 7-Mode.
780178	An incomplete version number is displayed for the integration packs under SCO deployment manager.
820415	VHD Volume State Monitor does not generate event 25012 when the VHD's volume is offline.
830206	Unable to add controllers into SCOM OnCommand Plug-in 4.0.1 for Microsoft.

Bug ID	Description
863041	OnCommand Plug-in 4.0.1 for Microsoft discovery failed.

Documentation errors

Review these errors and omissions in the published documentation carefully.

Missing OnCommand Plug-in for Microsoft permissions needed when connecting to clustered Data ONTAP using a user other than administrator

The storage administrator must add the following permissions:

```
security login role create -role OCPM -access readonly "statistics catalog instance show"
```

```
security login role create -role OCPM -access readonly "statistics catalog counter show"
```

```
security login role create -role OCPM -access readonly "statistics catalog object show"
```

```
security login role create -role OCPM -access readonly "metrocluster show"
```

Missing OnCommand Plug-in for Microsoft permission needed to monitor NetApp MetroCluster software

The storage administrator must add the following permissions:

```
security login role create -role OCPM -access readonly "storage bridge show"
```

Adding Data ONTAP storage controller credentials in 7-Mode environments

If you cannot connect to the controller entered into the Manage Controller Credentials, the Run As Action Account might need to be configured:

1. Add the OnCommand Plug-in for Microsoft Run As Action Account as an administrator on the local host.
2. Change the credentials of the OnCommand Plug-in for Microsoft Run As Action Account to a user with privileges that allow it to run.
The credentials can be edited by navigating **SCOM Administration > Run As Configuration > Accounts > Action Account**.

Adding a clustered Data ONTAP storage system

If you cannot connect to the controller entered into the Manage Storage System, the Run As Action Account might need to be configured:

1. Add the OnCommand Plug-in for Microsoft Run As Action Account as an administrator on the local host.
2. Change the credentials of the OnCommand Plug-in for Microsoft Run As Action Account to a user with privileges that allow it to run.
The credentials can be edited by navigating **SCOM Administration > Run As Configuration > Accounts > Action Account**.

Additional hardware requirements for installing SCOM management servers

For SCOM management servers that will monitor clustered Data ONTAP systems, it is recommended that in addition to meeting the minimum requirements specified in the *OnCommand Plug-in for*

Microsoft Installation and Setup Guide For Clustered Data ONTAP, your management server should have at least 4 vCPUs and 4 GB of additional RAM available for the plug-in.

Errors in the Installation and Setup Guide for clustered Data ONTAP regarding using SNMP for discovery

SNMP is not used for clustered Data ONTAP monitoring. You must supply the name or IP address of the clustered systems for OnCommand Plug-in for Microsoft to discover them. The *OnCommand Plug-in for Microsoft 4.1 for Microsoft Installation and Setup Guide For Clustered Data ONTAP* should contain the following changes:

- The reference to SystemSnmp.Library in the System Center Operations Manager library requirements topic should be removed.
- The SNMP support topic should be deleted.

Related information

[*OnCommand Plug-in 4.1 for Microsoft Installation and Setup Guide for Clustered Data ONTAP*](#)

Where to get help and find more information

The NetApp Support Site provides access to troubleshooting tools, product documentation, and technical assistance. You can use NetApp Community forums to connect with peers, and the NetApp Library to access technical reports and white papers.

- [*NetApp Support*](#)
Access troubleshooting tools, product documentation, and technical support assistance.
- [*NetApp Communities*](#)
Connect with peers, ask questions, exchange ideas, find resources, and share best practices.
- [*NetApp library of technical reports and white papers*](#)
Access technical reports, white papers, and other documents.
 - [*List of OnCommand Plug-in for Microsoft "Break-Fix" knowledge base articles*](#)
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