



MetroCluster™ Plug-in 1.0 for vSphere®

Installation and Administration Guide



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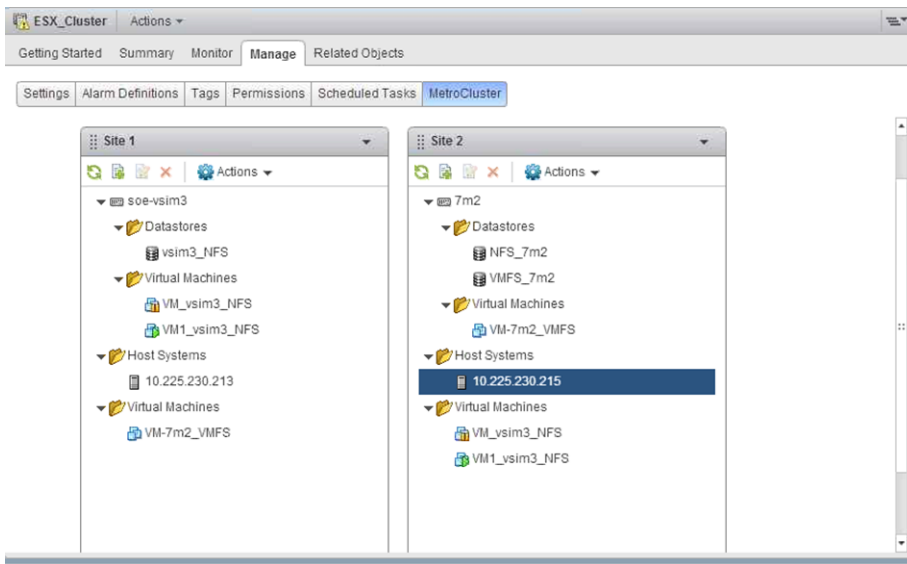
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What you can do with MetroCluster Plug-in for vSphere

MetroCluster Plug-in for vSphere is a vCenter client plug-in that enables you to view NetApp storage systems running Data ONTAP operating in 7-Mode in a MetroCluster configuration within the vSphere cluster inventory. The plug-in also enables you to complete takeover and giveback operations and evacuate all virtual machines to another site.

The plug-in adds a MetroCluster tab under the Manage tab in the Hosts and Clusters view in the vSphere Web Client when you select a cluster from the vSphere inventory.



You can use the plug-in to do the following:

- View all storage systems at each site, including vFiler units.
- View all datastores in the site inventory and the virtual machines hosted on the datastores residing on each storage system or vFiler unit.
- View all ESX and ESXi host systems in the cluster at each site.
Host systems that are not assigned to a site are not visible in the MetroCluster tab.
- View all virtual machines in the cluster at each site.
- Perform a storage system takeover in normal or disaster recovery mode.
- Evacuate all virtual machines between sites.
vSphere Distributed Resource Scheduler (DRS) must be correctly configured.
- MetroCluster Plug-in supports AutoSupport if the functionality is enabled on the storage system.
The plug-in logs various AutoSupport messages during storage operations, including adding, modifying, or removing a storage system as well as takeover and giveback operations.

Related tasks

[*Installing MetroCluster Plug-in for vSphere*](#) on page 12

[*Customizing site names and configuring hosts in MetroCluster Plug-in for vSphere*](#) on page 16

[*Evacuating virtual machines between sites using MetroCluster Plug-in for vSphere*](#) on page 20

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[*Initiating a giveback operation in MetroCluster Plug-in for vSphere*](#) on page 25

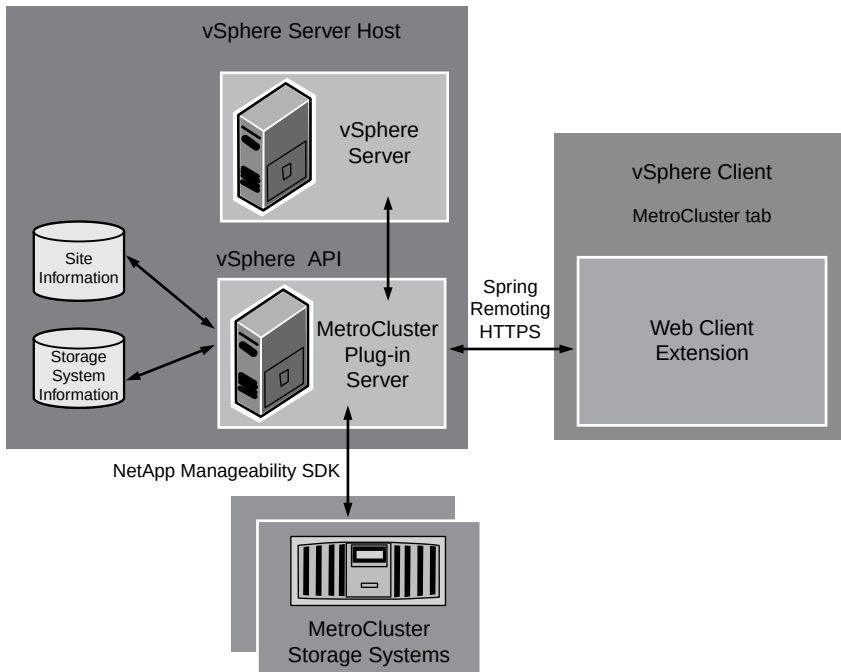
Architecture of MetroCluster Plug-in for vSphere

MetroCluster Plug-in for vSphere interacts with storage systems running Data ONTAP operating in 7-Mode and configured for MetroCluster, the vCenter Server, the vSphere Web Client, and the MetroCluster Plug-in server. Understanding the architecture can help you determine the best configuration for your requirements.

MetroCluster Plug-in for vSphere includes the following components:

- A graphical user interface (GUI) that displays site inventory and storage system information within the vSphere Web Client to provide a single management console for virtualized environments
- A server component, the MetroCluster Plug-in server, that gathers site inventory information from the vCenter Server and configured storage systems

The following diagram shows how the plug-in collects data from configured storage systems and delivers this information to the vCenter Server.



The vSphere Web Client and the MetroCluster Plug-in server use the HTTPS protocol to communicate. The plug-in server uses the NetApp Manageability SDK to communicate with the storage systems running Data ONTAP operating in 7-Mode and configured for MetroCluster. The vSphere API is used to collect vSphere inventory information from the vCenter Server.

Standard roles in MetroCluster Plug-in for vSphere

MetroCluster Plug-in for vSphere provides a set of standard roles that enable users to perform key tasks using the plug-in. As an administrator, you can assign these roles to the appropriate users since the standard roles contain the required vCenter Server privileges to ensure that tasks complete successfully.

You do not have to assign a role to vSphere admin users because they are automatically granted all MetroCluster Plug-in privileges.

The standard roles include a read-only role that enables users to view plug-in information, but not to perform any tasks. The plug-in provides the following standard roles:

MetroCluster Plug-in role	Description
Read-only	Provides read-only access to the plug-in.

MetroCluster Plug-in role	Description
Operator	Provides access to all vCenter Server permissions necessary to perform storage system takeover, giveback, and virtual machine evacuation tasks.
Administrator	Provides access to all vCenter Server permissions necessary to perform all plug-in tasks.

The following sections provide information about these roles and list the privileges associated with each role.

MetroCluster Plug-in Read-only role

Location	Privileges for MetroCluster Read-only role
MetroCluster Plug-in for vSphere	• Access MetroCluster Plug-in

MetroCluster Plug-in Operator role

Location	Privileges for MetroCluster Operator role
MetroCluster Plug-in for vSphere	• Access MetroCluster Plug-in • Evacuate MetroCluster Plug-in site • Failover MetroCluster Plug-in storage systems
Global	• Cancel task
Host	• Configuration • Inventory
Host > Configuration	• Maintenance
Host > Inventory	• Modify cluster

MetroCluster Plug-in Administrator role

Location	Privileges for MetroCluster Administrator role
MetroCluster Plug-in for vSphere	• Access MetroCluster Plug-in • Configure MetroCluster Plug-in site • Evacuate MetroCluster Plug-in site • Failover MetroCluster Plug-in storage systems

Location	Privileges for MetroCluster Administrator role
Global	Cancel task
Host	- Configuration - Inventory
Host > Configuration	Maintenance
Host > Inventory	Modify cluster

Privileges available with Data ONTAP operating in 7-Mode

If you want to specify individual privileges, the following table lists the privileges for the MetroCluster Plug-in roles.

MetroCluster Plug-in role	Privileges for Data ONTAP operating in 7-Mode
Read-only role	- system-get-info - cf-status - net-ifconfig-get - vfiler-list-info - lun-list-info
Operator role	- system-get-info - cf-status - net-ifconfig-get - vfiler-list-info - lun-list-info - cf-takeover - cf-force-takeover - cf-giveback
Administrator role	- system-get-info - cf-status - net-ifconfig-get - vfiler-list-info - lun-list-info - cf-takeover - cf-force-takeover - cf-giveback

Related information

[*NetApp Community Document: RBAC User Creator for Data ONTAP*](#)

System requirements for MetroCluster Plug-in for vSphere

Before you install the MetroCluster Plug-in software, you must ensure that your storage systems conform to all supported system requirements. The server running the MetroCluster Plug-in must meet specific software, hardware, and operating system requirements.

vSphere server configuration

The MetroCluster Plug-in requires that you have vCenter Server 5.5 and the ESX hosts must be running ESX 5.x.

Windows server configuration

Your Microsoft Windows host must have a minimum of 4 GB RAM and 250 MB temporary disk space for installation of the MetroCluster Plug-in.

System requirements

Before you install and use the MetroCluster Plug-in, you should be aware of the following requirements:

- Data ONTAP requirements
- Supported Windows software
- vCenter Server requirements
- ESX host software requirements

[*NetApp Interoperability Matrix Tool*](#)

vSphere DRS requirements

The vSphere Distributed Resource Scheduler (DRS) should be turned on and the automation level set to Fully Automated with the DRS migration threshold set to apply at least priority 1 and priority 2 recommendations for the cluster.

Installing MetroCluster Plug-in for vSphere

You can launch the MetroCluster Plug-in for vSphere installer and respond to the installer prompts to install the plug-in on a Windows server. During the installation process, you must register the plug-in with the vCenter Server and provide information to configure the plug-in server.

Downloading MetroCluster Plug-in for vSphere

Before installing MetroCluster Plug-in for vSphere, you must download the software package from the NetApp Support Site.

Before you begin

You must have login credentials for the NetApp Support Site.

Steps

1. Log in to the NetApp Support Site.
2. Go to the Download Software page.
3. From the drop-down list, select the operating system on which you are installing the MetroCluster Plug-in and click **Go!**.
4. Click **View & Download** for the software version you want to install.
5. On the Description page, click **Continue**.
6. Review and accept the license agreement.
7. On the Download page, click the link for the installation file.
8. Save the MetroCluster Plug-in file to a local or network directory.
9. Click **Save File**.
10. Verify the checksum to ensure that the software downloaded correctly.

Related information

[*NetApp Support*](#)

Installing MetroCluster Plug-in for vSphere

After you have downloaded MetroCluster Plug-in for vSphere, you can run the installation wizard to install the software and register the plug-in with the vCenter Server.

Before you begin

- You must have administrator privileges for the Windows computer on which you are installing the plug-in.
- You must have a Windows system account user name and password.
- You must know the path of the directory to which you want to install, if different from the default location.

About this task

You can only install the MetroCluster Plug-in on a 64-bit Windows server and you must not install the software on 32-bit host machines.

You can install the plug-in on the same server as the vCenter Server if the vCenter Server is installed on a Windows server.

Steps

1. Double-click the `mcpv-setup` executable file to launch the MetroCluster Plug-in installer.
2. Select the installation location and click **Next**.
3. Click **Next** on the **Select Additional Tasks** page to register the plug-in with the vCenter Server.
If you are installing for the first time, both check boxes are selected by default. The check boxes are not selected if you are upgrading or reinstalling the software.
4. Type the host name or IP address and the user name and password of the vCenter Server to register the MetroCluster Plug-in with the vCenter Server and click **Next**.
5. Type the host name or IP address of your MetroCluster Plug-in server in the **Hostname or IP Address** text box.
6. Specify the port number that you want to use or accept the default port number for the plug-in server, and then click **Next**.
7. Click **Install** on the **Ready to Install** page.
8. Review the summary of your selections and click **Finish**.

After you finish

The MCPV service automatically registers with the vCenter Server during the installation. Log in to the vSphere Web Client and verify that the MetroCluster tab appears under the Manage tab in the

Hosts and Clusters view. If the MetroCluster tab is not visible, you must use the command line to register the MCPV service with the vCenter Server. For more information, see [*MetroCluster tab not visible under Manage tab of vSphere Web Client*](#) on page 27.

Access control using role-based access control permissions

Before you configure the MetroCluster Plug-in, verify that you have the appropriate vCenter Server role-based access control (RBAC) permissions to view the MetroCluster tab in the vSphere Web Client. The vCenter Server provides RBAC permissions that enable you to control access to vSphere objects.

The MetroCluster Plug-in provides custom privileges for various tasks using the plug-in. You can then assign the vCenter Server roles or create custom roles, enabling users to perform specific vSphere tasks.

Uninstalling MetroCluster Plug-in for vSphere

You can uninstall MetroCluster Plug-in for vSphere from the Windows host when you no longer need the software. You can run the uninstallation program interactively.

Uninstalling MetroCluster Plug-in for vSphere

You can uninstall MetroCluster Plug-in for vSphere from the Windows server using the Control Panel uninstall application for your operating system. You can uninstall and reinstall if necessary to troubleshoot any issues with the application.

Before you begin

You must have unregistered the MetroCluster Plug-in from the vCenter Server prior to uninstalling the plug-in.

About this task

The standard roles for the MetroCluster Plug-in remain in the inventory even after you uninstall the plug-in and you must manually remove the roles.

The uninstall process does not unregister the MetroCluster Plug-in from the vCenter Server.

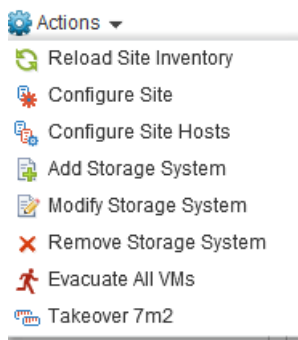
Steps

1. On the Windows server where you installed the MetroCluster Plug-in, navigate to the Control Panel and select **Control Panel > Programs > Programs and Features**.
2. Scroll through the list of installed programs to find MetroCluster Plug-in for vSphere.
3. Click the name of the program and then click **Uninstall**.
4. When prompted to confirm uninstallation, click **Yes**.

Configuring and maintaining a site inventory with MetroCluster Plug-in for vSphere

After you install and register the MetroCluster Plug-in, the initial view in the vSphere Web Client shows two empty sites on the MetroCluster Plug-in page. You must configure the sites, then add storage systems running Data ONTAP operating in 7-Mode in a MetroCluster configuration.

After you configure the sites, you can use the MetroCluster Plug-in menu to complete tasks. Some menu options are always available, such as **Reload Site Inventory**, **Configure Site**, and **Add Storage System**. Some options are only available when you select a storage system, such as **Takeover** and **Remove Storage System**.



How changes to vCenter Server inventory affect MetroCluster Plug-in for vSphere

Because MetroCluster Plug-in for vSphere does not receive notification of all vSphere inventory events, the inventory view displayed in the MetroCluster tab might not be up to date. You can click the **Reload Site Inventory** button to ensure that you have an updated view of the site inventory.

The MetroCluster Plug-in displays inventory for a single vSphere cluster in the two MetroCluster sites. Even though a MetroCluster configuration might support multiple vSphere clusters, the plug-in only displays inventory for a single vSphere cluster at any time. Any operations that you perform on a MetroCluster storage system, such as takeover or giveback, affects all vSphere clusters residing in the MetroCluster configuration.

Customizing site names and configuring hosts in MetroCluster Plug-in for vSphere

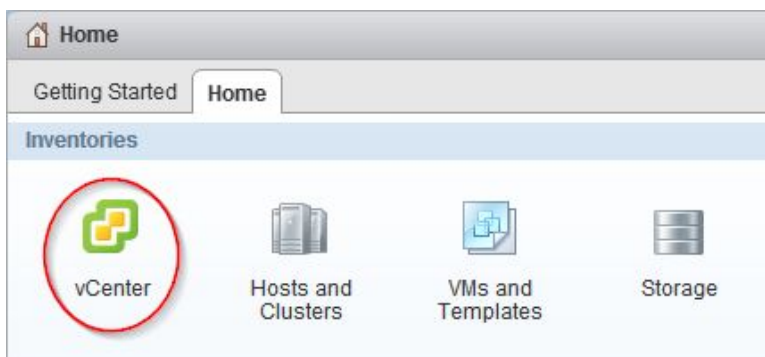
By default, the MetroCluster Plug-in provides generic site names in the vSphere environment when you install and register the plug-in. You can change these generic names to names that are more meaningful to you and you can also specify a host name pattern that is used to match ESX and ESXi hosts to a site.

About this task

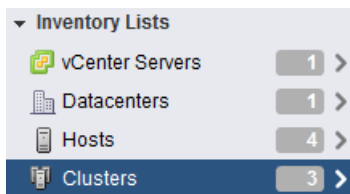
After customizing the site names, you can either specify a substring or a regular expression to match hosts to a site or you can directly assign hosts to each site.

Steps

1. From the vSphere Web Client **Home** page, click **vCenter**.



2. In the navigation pane, under **Inventory Lists**, click **Clusters**.



3. Click the **Manage** tab, and then click the **MetroCluster** tab to open the MetroCluster Plug-in page.
4. Click **Actions > Configure Site**.
5. Specify a custom name for each site. Optionally, specify a host name pattern if you have a lot of hosts and there is a convenient naming pattern that you use to match ESX and ESXi hosts to sites in the **Configure Site** dialog box.

6. Click **Actions > Configure Site Hosts**.
7. Select one or more of the available hosts in the **Configure Site Hosts** dialog box and specify to which site the host should be assigned.
8. Click **OK**.

Adding storage systems to the site inventory

After you have assigned hosts to each site using the MetroCluster Plug-in, you can then add storage systems. Datastores and virtual machines do not appear in the site inventory until you add storage systems to the plug-in.

Before you begin

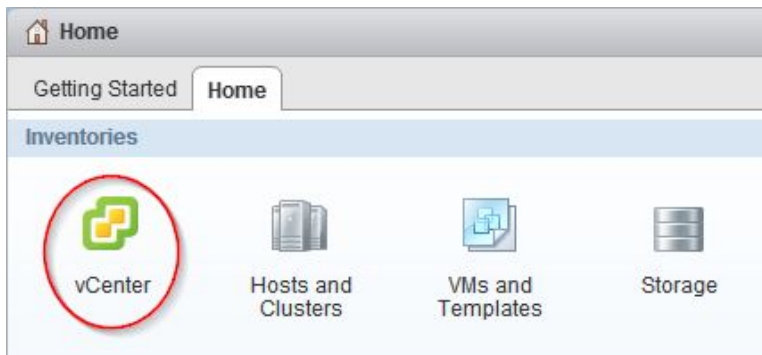
You must have added your ESX and ESXi host systems.

About this task

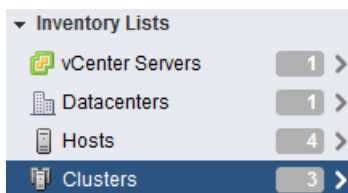
Your storage systems must have the required permissions to run the Data ONTAP API commands on the system.

Steps

1. From the vSphere Web Client **Home** page, click **vCenter**.



2. In the navigation pane, under **Inventory Lists**, click **Clusters**.



3. Click the **Manage** tab, then click the **MetroCluster** tab to open the MetroCluster Plug-in page.

4. Click **Actions > Add Storage System**.
5. To add a new storage system, type the host name or IP address, user name, and password for the storage system in the **Username** and **Password** text boxes.
6. Click **OK**.

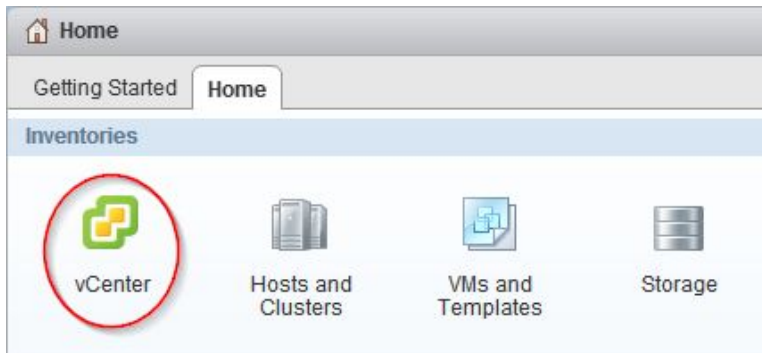
When you add a storage system, all the VMFS and NFS datastores and virtual machines on the storage system appear in the site inventory.

Modifying storage system information

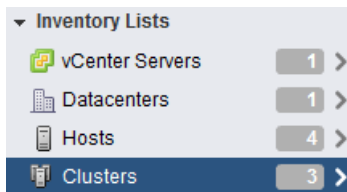
You can edit the user credentials for a storage system when necessary by changing the host name or IP address, user name, or password. You might need to change the user credentials if the existing user account has periodic password changes or if you want to restrict access by providing a user with the minimum required permissions.

Steps

1. From the vSphere Web Client **Home** page, click **vCenter**.



2. In the navigation pane, under **Inventory Lists**, click **Clusters**.



3. Click the **Manage** tab, then click the **MetroCluster** tab to open the MetroCluster Plug-in page.
4. Select a storage system for which you want to modify the user credentials.
5. Click **Actions > Modify Storage System**.

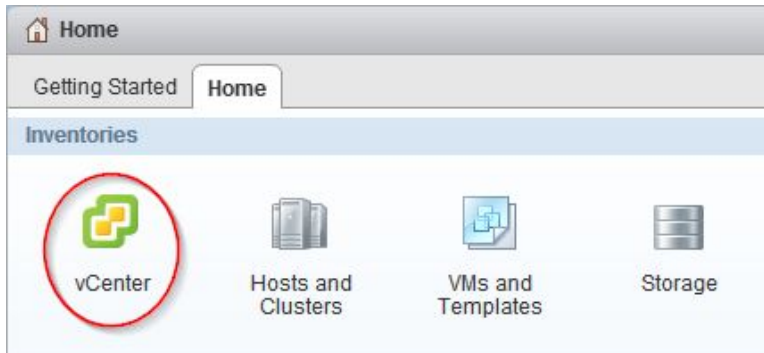
6. To change the user credentials of the selected storage system, select an IP address from the list or type the host name or IP address, user name, and password for the storage system in the **Username** and **Password** text boxes.
7. Click **OK**.

Removing storage systems from the site inventory

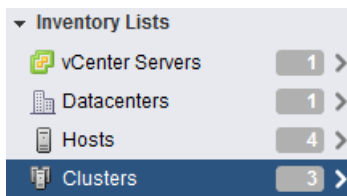
You can remove storage systems when you no longer need to retain them in the site inventory. When you delete a storage system, it is removed from the list of registered systems.

Steps

1. From the vSphere Web Client **Home** page, click **vCenter**.



2. In the navigation pane, under **Inventory Lists**, click **Clusters**.



3. Click the **Manage** tab, then click the **MetroCluster** tab to open the MetroCluster Plug-in page.
4. Select the storage system that you want to remove.
5. Click **Actions > Remove Storage System**.
6. Click **OK** when you receive the confirmation prompt to remove the storage system.

Performing virtual machine evacuation

The MetroCluster Plug-in performs an evacuation by placing all host systems at one site in a MetroCluster configuration in maintenance mode and migrating all virtual machines from servers at one site to servers at the other site. After all host systems in the site are put into maintenance mode, the only available systems are those at the other MetroCluster site.

You might need to migrate virtual machines from one physical server to another because of routine maintenance, a power outage, or some other site-wide outage. You must complete the site evacuation prior to the site-wide maintenance or an outage occurring.

Site evacuation using the MetroCluster Plug-in is not a disaster recovery operation and it requires that both sites be on the network. Site evacuation also requires that the cluster be configured for vSphere Distributed Resource Scheduler (DRS). If DRS is not enabled for the cluster, a warning message displays that the site evacuation cannot be completed.

To customize your DRS cluster, you can configure affinity rules that control the placement of virtual machines on hosts within a cluster. Refer to VMware documentation for more information.

Evacuating virtual machines between sites using MetroCluster Plug-in for vSphere

The MetroCluster Plug-in puts all host systems at one site in a MetroCluster configuration in maintenance mode. If vSphere Distributed Resource Scheduler (DRS) is configured correctly, DRS forces a migration of all running virtual machines to host systems at the other site.

Before you begin

You must have enabled vSphere DRS on the cluster.

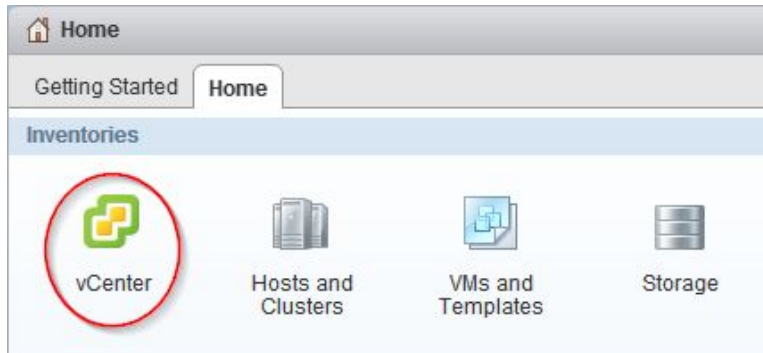
About this task

DRS should be turned on and the automation level set to **Fully Automated** with the DRS migration threshold set to apply at least **priority 1** and **priority 2** recommendations for the cluster.

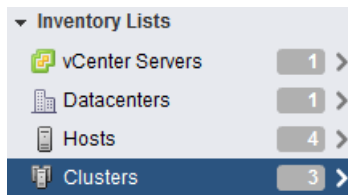
After all virtual machines have been migrated, the host systems complete the transition to maintenance mode. vSphere DRS uses vMotion® to move VMs to other servers.

Steps

1. From the vSphere Web Client **Home** page, click **vCenter**.

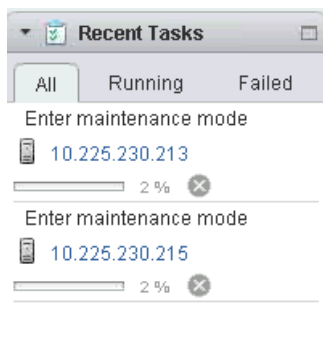


2. In the navigation pane, under **Inventory Lists**, click **Clusters**.



3. Click the **Manage** tab, then click the **MetroCluster** tab to open the MetroCluster Plug-in page.
4. Select the host system for which you want to perform an evacuation of all virtual machines.
5. Click **Actions > Evacuate All VMs**.
6. Click **OK** on the confirmation prompt.

You can track the progress of the virtual machine migration from the Recent Tasks pane in the vSphere Web Client.



Performing takeover and giveback operations

You can use the MetroCluster Plug-in to perform takeover and giveback operations. A takeover operation might be necessary when a system failure occurs or when system maintenance is required. After all issues are resolved or maintenance is complete, you can then initiate a giveback operation to restore storage.

Understanding takeover and giveback

Takeover and giveback are the operations that let you take advantage of the HA configuration to perform nondisruptive operations and avoid service interruptions. Takeover is the process in which a node takes over the storage of its partner. Giveback is the process in which the storage is returned to the partner.

When takeovers occur

Takeovers can be initiated manually or occur automatically when a failover event happens, depending on how you configure the HA pair. In some cases, takeovers occur automatically, regardless of configuration.

Takeovers can occur under the following conditions:

- A takeover is manually initiated.
- A node is in an HA pair with the default configuration for immediate takeover on panic, and that node undergoes a software or system failure that leads to a panic.
By default, the node automatically performs a giveback, returning the partner to normal operation after the partner has recovered from the panic and booted up.
- A node that is in an HA pair undergoes a system failure (for example, a loss of power) and cannot reboot.

Note: If the storage for a node also loses power at the same time, a standard takeover is not possible.

- One or more network interfaces that are configured to support failover become unavailable.
- A node does not receive heartbeat messages from its partner.
This could happen if the partner experienced a hardware or software failure that did not result in a panic but still prevented it from functioning correctly.
- Hardware-assisted takeover is enabled and triggers a takeover when the remote management device (RLM or Service Processor) detects failure of the partner node.

What happens during takeover

When a takeover occurs, the unimpaired partner node takes over the functions and disk drives of the failed node by creating an emulated storage system.

The emulated system performs the following tasks:

- Assumes the identity of the failed node
- Accesses the failed node's disks, array LUNs, or both, and serves its data to clients

The partner node maintains its own identity and its own primary functions, but also handles the added functionality of the failed node through the emulated node.

Note: When a takeover occurs, existing CIFS sessions are terminated. A graceful shutdown of the CIFS sessions is not possible, and some data loss could occur for CIFS users.

If the node doing the takeover panics

If the node that is performing the takeover panics within 60 seconds of initiating takeover, the following events occur:

- The node that panicked reboots.
- After it reboots, the node performs self-recovery operations and is no longer in takeover mode.
- Failover is disabled.

Initiating a takeover operation in MetroCluster Plug-in for vSphere

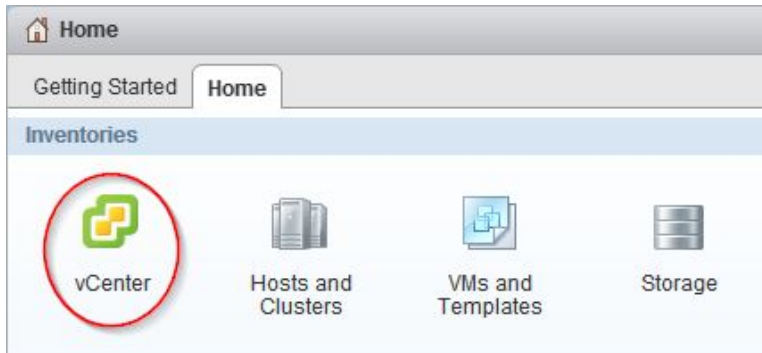
You can initiate a takeover operation in which a storage system takes over the functions and disk drives of its failed partner. You can perform a storage system takeover in normal or disaster recovery mode using the MetroCluster Plug-in.

About this task

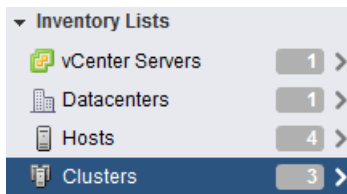
The **Takeover** option is available only when a storage system is in a normal state.

Steps

1. From the vSphere Web Client **Home** page, click **vCenter**.



2. In the navigation pane, under **Inventory Lists**, click **Clusters**.



3. Click the **Manage** tab, and then click the **MetroCluster** tab to open the MetroCluster Plug-in page.
4. Select the host system for which you to initiate the takeover operation.
5. Click **Actions > Takeover**.
6. Click **Normal Failover** or **Disaster Failover** on the confirmation prompt.

Selecting the Disaster Failover option requires a manual recovery to recover access to data, fix problems at the disaster site, and re-create the MetroCluster configuration before performing a giveback.

7. Click **OK**.

Related tasks

[Initiating a giveback operation in MetroCluster Plug-in for vSphere](#) on page 25

Related information

[Data ONTAP 8.2 High Availability and MetroCluster Configuration Guide for 7-Mode NetApp Technical Report 3548: Best Practices for MetroCluster Design and Implementation](#)

What happens during giveback

The local node returns ownership of the aggregates and volumes to the partner node after any issues on the partner node are resolved or maintenance is complete. In addition, the local node returns

ownership when the partner node has booted up and giveback is initiated either manually or automatically.

When the failed node is functioning again, the following events can occur:

- You initiate a giveback operation that terminates the emulated node on the partner.
- The failed node resumes normal operation, serving its own data.
- The HA pair resumes normal operation, with each node ready to take over for its partner if the partner fails.

Initiating a giveback operation in MetroCluster Plug-in for vSphere

You can perform a giveback from a normal takeover using the MetroCluster Plug-in. For example, site B has taken ownership of site A's storage during a takeover, migrating the virtual machines and datastores from site A to site B. You must perform a giveback to restore site A.

Before you begin

You have performed a takeover and the hosts and datastores on site A are running.

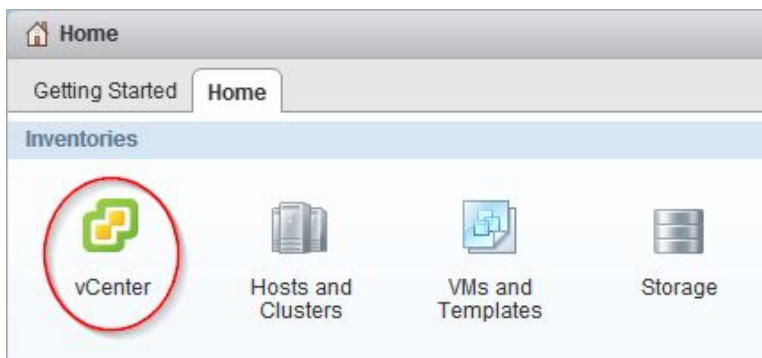
About this task

You cannot perform a giveback operation for a disaster failover.

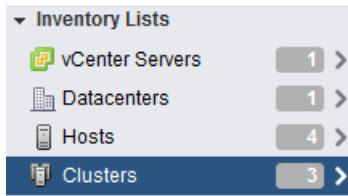
When a storage system is in a takeover state, the system is displayed as **off line** and a double storage system icon is displayed for its partner to indicate that it is in a takeover state.

Steps

1. From the vSphere Web Client **Home** page, click **vCenter**.



2. In the navigation pane, under **Inventory Lists**, click **Clusters**.



3. Click the **Manage** tab, then click the **MetroCluster** tab to open the MetroCluster Plug-in page.
4. Select the host system that is in a takeover state.
5. Click **Actions > Giveback**.
6. Click **Force giveback** on the confirmation prompt, if necessary.
7. Click **OK**.

After the giveback operation finishes, the site inventory and storage system icon display the normal state for the system.

Related tasks

[Initiating a takeover operation in MetroCluster Plug-in for vSphere](#) on page 23

Troubleshooting MetroCluster Plug-in for vSphere

If you encounter unexpected behavior during the installation or configuration of the MetroCluster Plug-in, you can follow specific troubleshooting procedures to identify and resolve the cause of such issues.

MetroCluster tab not visible under Manage tab of vSphere Web Client

- | | |
|--------------------------|---|
| Issue | The MetroCluster tab is not visible when you click the Manage tab in the vSphere Web Client. |
| Cause | This problem occurs if the registration of the MCPV service with the vCenter Server fails or you did not select a cluster in the Hosts and Clusters view in the vSphere Web Client. |
| Corrective action | <ol style="list-style-type: none"> 1. In the folder where the MCPV service is installed, type the following command to register the plug-in: |

```
<pathtoMCPV>\metrocluster register https://localhost:28443/
mcpv/register <ipAddress> <userName> <password>
```

The following is an example of the command line syntax that you would use to register the MCPV service with the vCenter Server:

```
<pathtoMCPV>\metrocluster register https://localhost:28443/
mcpv/register 192.168.0.0 administrator@vsphere.local abc123
```

Unregistering MetroCluster Plug-in for vSphere from the vCenter Server

If you must completely remove MetroCluster Plug-in for vSphere from the vCenter Server, you can use a command line utility to unregister the plug-in.

Before you begin

You must be connected to and working from the folder where the MCPV service is installed.

Step

1. Type the following command to unregister the MCPV service:

```
<pathtoMCPV>\metrocluster unregister https://localhost:28443/mcpv/  
unregister <ipAddress> <userName> <password>
```

Example

The following is an example of the command line syntax that you would use to unregister the MCPV service:

```
<pathtoMCPV>\metrocluster unregister https://localhost:28443/mcpv/  
unregister 192.168.0.0 administrator@vsphere.local abc123
```

Connection error occurs if the IP address of the MetroCluster Plug-in host changes

Issue	After installing the MetroCluster Plug-in on a host system and successfully registering the plug-in with a vCenter Server, a connection error occurs if you change the IP address of the host.
Cause	This problem occurs if the plug-in URL continues to link to the former IP address of the host.
Corrective action	1. Register the new IP address with the MCPV service, using the command line. You do not need to unregister the former IP address of the host system. 2. Restart the vSphere Web Client service and wait for approximately five minutes for the service to start. 3. Log in to the vSphere Web Client and click the MetroCluster tab.

Exporting log files for MetroCluster Plug-in for vSphere

You can collect the MetroCluster Plug-in for vSphere log files using the **Export Logs** link on the MetroCluster Plug-in page to export all of the associated log files to a directory of your choice. The log files might help technical support troubleshoot a problem.

Steps

1. From the MetroCluster Plug-in page, click **Export Logs**.
2. When prompted, save the file to your local computer.

The file contains up to five of the following log files:

- MVPV.Date.log
- MCPV.log
- MCPV_Trace.log
- mcpv_stderr.Date.log
- mcpv_stdout.Date.log

You can also find all of these files in the installation directory at `MCPV_Installation_path\logs`.

3. Locate the directory to which you want to save the .zip file and click **Save**.

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