



Manage datastores

ONTAP tools for VMware vSphere 9.11

NetApp
August 30, 2024

Table of Contents

- Manage datastores. 1
 - Mount datastore on additional hosts 1
 - Resize datastores 1
 - Edit a vVols datastore 2
 - Add storage to a vVols datastore 2
 - Remove storage from a vVols datastore 4
 - Mount a vVols datastore. 4

Manage datastores

Mount datastore on additional hosts

Mounting a datastore provides storage access to additional hosts. You can mount the datastore on the additional hosts after you add the hosts to your VMware environment.

What you will need

You must ensure that the subnet details of all the networks to which the ESXi host is connected is entered in the `Kaminoprefs.xml`.

See [Enabling datastore mounting across different subnets](#) section.

Steps

1. From the vSphere Client Home page, click **Hosts and Clusters**.
2. In the navigation pane, select the datacenter that contains the host.
3. Repeat Step 2 for any additional hosts.
4. Right-click the host, and then select **NetApp ONTAP tools > Mount Datastores**.
5. Select the datastores that you want to mount, and then click **OK**.

Resize datastores

Resizing a datastore enables you to increase or decrease the storage for your virtual machine files. You might need to change the size of a datastore as your infrastructure requirements change.

About this task

If you want VSC to resize the containing volume when it resizes the VMFS datastore, you should not use the **Use existing volume** option under Storage attributes section when initially provisioning VMFS datastore, but instead let it automatically create a new volume for each datastore.

You can increase or decrease the size of an NFS datastore but for a VMFS datastore, you can only increase the size. Resizing of datastore is also supported for FlexGroup datastores with auto grow and shrink option. A FlexGroup that is part of a traditional datastore and FlexVol volume that is part of a vVols datastore cannot shrink below the existing size but can grow by 120% maximum. Default snapshots are enabled on these FlexGroup and FlexVol volumes.



If you are using All SAN Array (ASA) type storage platforms with ONTAP 9.9.1 or later, only then you can create vVols datastores with vmdk size greater than 16TB.

Steps

1. From the vSphere Client Home page, click **Hosts and Clusters**.
2. In the navigation pane, select the datacenter that contains the datastore.
3. Right-click the datastore and select **NetApp ONTAP tools > Resize non-vVols datastore**.

4. In the Resize dialog box, specify a new size for the datastore, and then click **OK**.

You can run the **REDISCOVER ALL** option in the Storage Systems menu to manually update the storage listing under Storage Systems and dashboard, or wait for the next scheduled refresh.

Edit a vVols datastore

You can edit an existing VMware Virtual Volumes (vVols) datastore to change the default storage capability profile. The default storage capability profile is primarily used for Swap vVols.

Steps

1. From the vSphere Client page, click **Hosts and Clusters**.
2. Right-click the datastore, and then select **NetApp ONTAP tools > Edit Properties of vVols Datastore**.

The Edit Properties of vVols Datastore dialog box is displayed.

3. Make the required changes.

You can change the default storage capability profile for the vVols datastore by selecting a new profile from the drop-down list in the Edit vVols Datastore dialog box. You can also change the vVols datastore name and description.



You cannot change the vCenter Server where the vVols datastore is located.

4. When you have made your changes, click **OK**.

A message box asks whether you want to update the vVols datastore.

5. Click **OK** to apply your changes.

A success message appears to inform that the vVols datastore has been updated.

Add storage to a vVols datastore

You can increase the available storage by using the Add Storage wizard to add FlexVol volumes to an existing VMWare Virtual Volumes (vVols) datastore.

About this task

When you add a FlexVol volume, you also have the option of changing the storage capability profile associated with that volume. You can either use the VASA Provider auto-generate feature to create a new profile for the volume, or you can assign one of the existing profiles to the volume.



- While expanding a vVols datastore with replication capabilities, you cannot create new FlexVol volumes but can only select pre-configured FlexVol volumes from the existing list.
- When cloning a protected virtual machine deployed on datastore with vVols replication fails due to insufficient space, then you should increase the FlexVol volume size.
- When a vVols datastore is created on a AFF cluster, then you cannot expand the datastore with another FlexVol volume that has auto generate storage capability profile.
 - You can expand the vVols datastore with FlexVol volumes that have pre-created storage capability profiles.

Steps

1. On the vSphere Client Home page, click **Hosts and Clusters**.
2. Right-click the vVols datastore, and then select **NetApp ONTAP tools > Expand Storage of vVol Datastore**.
3. On the Expand Storage of vVols Datastore page, you can either add an existing FlexVol volume to the vVols datastore, or create a new FlexVol volume to add to the database.

If you select...	Perform the following...
Select volumes	<ol style="list-style-type: none">a. Select the FlexVol volumes that you want to add to the vVols datastore.b. In the Storage Capability Profiles column, use the drop-down list to either create a new profile based on the FlexVol volumes, or select one of the existing profiles. <p>The auto-generate feature creates a profile based the storage capabilities that are associated with that FlexVol volume. For example: disk type, high availability, disaster recovery, performance features, and deduplication.</p>
Create new volumes	<ol style="list-style-type: none">a. Enter the name, size, and storage capability profile for the FlexVol. <p>The aggregates are selected by the system based on the storage capability profile selected.</p> <ol style="list-style-type: none">b. Select the Auto Grow option and provide the maximum size.c. Click ADD to add the FlexVol to the list of volumes.

Reminder: All FlexVol volumes in a vVols datastore must be from the same storage virtual machine (SVM, formerly known as Vserver).

After you create a FlexVol volume, you can edit it by clicking the **Modify** button. You can also delete it.

4. Select a default storage capability profile to be used during virtual machine creation, and then click **Next** to review the summary of the storage added to vVols datastore.
5. Click **Finish**.

Result

The wizard adds the storage that you specified to the vVols datastore. It displays a success message when it finishes.



The Expand Storage of vVols Datastore wizard automatically handles any ESXi storage rescans or any other significant operations that are required. Because a vVols datastore is a logical entity controlled by VASA Provider, adding the FlexVol volume is the only thing you need to do to enlarge the capacity of your storage container.

Remove storage from a vVols datastore

If a VMware Virtual Volumes (vVols) datastore has multiple FlexVol volumes, you can remove one or more of the FlexVol volumes from the vVols datastore without deleting the datastore.

About this task

A vVols datastore exists as long as at least one FlexVol volume is available on the datastore. If you want to delete a vVols datastore in a HA cluster, then you should first unmount the datastore from all hosts within the HA cluster, and then delete the residing .vsphere-HA folder manually using vCenter Server user interface. You can then delete the vVols datastore.

Steps

1. From the vSphere Client Home page, click **Hosts and Clusters**.
2. Right-click the vVols datastore that you want to modify, and then select **NetApp ONTAP tools > Remove Storage from vVols Datastore**.

The Remove Storage from vVols Datastore dialog box is displayed.

3. Select the FlexVol volumes that you want to remove from the vVols datastore, and click **Remove**.
4. Click **OK** in the confirmation dialog box.



If you select all of the FlexVol volumes, an error message is displayed, indicating that the operation will fail.

Mount a vVols datastore

You can mount a VMware Virtual Volumes (vVols) datastore to one or more additional hosts by using the Mount vVols Datastore dialog box. Mounting the datastore provides storage access to additional hosts.

Steps

1. From the vSphere Client Home page, click **Hosts and Clusters**.
2. Right-click the datastore that you want to mount, and then select **NetApp ONTAP tools > Mount vVols Datastore**.

The Mount vVols Datastore dialog box is displayed, which provides a list of the hosts that are available in the datacenter where you can mount the datastore. The list does not include the hosts on which the datastore has already been mounted, hosts that are running ESX 5.x or earlier, or hosts that do not support the datastore protocol. For example, if a host does not support the FC protocol, you cannot mount an FC datastore to the host.



Even though the vSphere Client provides a mount dialog box for the vCenter Server, you must always use the VASA Provider dialog box for this operation. VASA Provider sets up access to storage systems that are running ONTAP software.

3. Select the host on which you want to mount the datastore, and then click **OK**.

Copyright information

Copyright © 2024 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.