



Technical Report

# Managing existing storage

Cloud Manager 3.5

Ben Cammett  
11/01/2018

# Table of Contents

Managing existing storage .....	1
Managing existing volumes.....	1
Managing existing aggregates.....	2
Modifying the CIFS server .....	3
Moving a volume to avoid capacity issues.....	4

# Managing existing storage

Cloud Manager enables you to manage volumes, aggregates, and CIFS servers. It also prompts you to move volumes to avoid capacity issues.




## Managing existing volumes

You can manage existing volumes as your storage needs change. You can view, edit, clone, restore, and delete volumes.

### Steps

1. On the Working Environments page, double-click the Cloud Volumes ONTAP working environment on which you want to manage volumes.
2. Manage your volumes:

Task	Action
View information about a volume	Select a volume, and then click <b>Info</b> .
Edit a volume (read-write volumes only)	<ol style="list-style-type: none"><li>a. Select a volume, and then click <b>Edit</b>.</li><li>b. Modify the volume's Snapshot policy, NFS access control list, or share permissions, and then click <b>Update</b>.</li></ol>
Clone a volume	<ol style="list-style-type: none"><li>a. Select a volume, and then click <b>Clone</b>.</li><li>b. Modify the clone name as needed, and then click <b>Clone</b>.</li></ol> <p>This process creates a FlexClone volume. A FlexClone volume is a writable, point-in-time copy that is space-efficient because it uses a small amount of space for metadata, and then only consumes additional space as data is changed or added.</p> <p>To learn more about FlexClone volumes, see the <a href="#">ONTAP 9 Logical Storage Management Guide</a>.</p>
Restore data from a Snapshot copy to a new volume	<ol style="list-style-type: none"><li>a. Select a volume, and then click <b>Restore from Snapshot copy</b>.</li><li>b. Select a Snapshot copy, enter a name for the new volume, and then click <b>Restore</b>.</li></ol>
Create a Snapshot copy on demand	<ol style="list-style-type: none"><li>a. Select a volume, and then click <b>Create a Snapshot copy</b>.</li><li>b. Change the name, if needed, and then click <b>Create</b>.</li></ol>
Get the NFS mount command	<ol style="list-style-type: none"><li>a. Select a volume, and then click <b>Mount Command</b>.</li><li>b. Click <b>Copy</b>.</li></ol>

Task	Action
Change the underlying disk type	<p>a. Select a volume, and then click <b>Change Disk Type &amp; Tiering Policy</b>.</p> <p>b. Select the disk type, and then click <b>Change</b>.</p> <div>  <p>Cloud Manager moves the volume to an existing aggregate that uses the selected disk type or it creates a new aggregate for the volume.</p> </div>
Change the tiering policy	<p>a. Select a volume, and then click <b>Change Disk Type &amp; Tiering Policy</b>.</p> <p>b. Click <b>Edit Policy</b>.</p> <p>c. Select a different policy and click <b>Change</b>.</p> <div>  <p>Cloud Manager moves the volume to an existing aggregate that uses the selected disk type with tiering, or it creates a new aggregate for the volume.</p> </div>
Enable or disable sync to S3 for a volume	<p>Select a volume and then click <b>Sync to S3</b> or <b>Delete Sync Relationship</b>.</p> <div>  <p>The sync to S3 feature must be enabled before you can use these options. For instructions, see <a href="#">Syncing data to AWS S3</a></p> </div>
Delete a volume	<p>a. Select a volume, and then click <b>Delete</b>.</p> <p>b. Click <b>Delete</b> again to confirm.</p>

## Managing existing aggregates

If you want to manage existing aggregates yourself, you can add disks to aggregates, view information about aggregates, and delete them.

### *Before you begin*

If you want to delete an aggregate, you must have first deleted the volumes in the aggregate.

### *About this task*

If an aggregate is running out of space, you can move volumes to another aggregate by using OnCommand System Manager.

### *Steps*

1. On the Working Environments page, double-click the Cloud Volumes ONTAP working

environment on which you want to manage aggregates.

2. Click the menu icon and then click **Advanced > Advanced allocation**.
3. Manage your aggregates:

Task	Action
View information about an aggregate	Select an aggregate and click <b>Info</b> .
Create a volume on a specific aggregate	Select an aggregate and click <b>Create volume</b> .
Add disks to an aggregate	<ol style="list-style-type: none"><li>a. Select an aggregate and click <b>Add AWS disks</b> or <b>Add Azure disks</b>.</li><li>b. Select the number of disks that you want to add and click <b>Add</b>.</li></ol>
Delete an aggregate	<ol style="list-style-type: none"><li>a. Select an aggregate that does not contain any volumes and click <b>Delete</b>.</li><li>b. Click <b>Delete</b> again to confirm.</li></ol>

## Modifying the CIFS server

If you change your DNS servers or Active Directory domain, you need to modify the CIFS server in Cloud Volumes ONTAP so that it can continue to serve storage to clients.

### Steps

1. From the working environment, click the menu icon and then click **Advanced > CIFS setup**.
2. Specify settings for the CIFS server:

Task	Action
DNS Primary and Secondary IP Address	<p>The IP addresses of the DNS servers that provide name resolution for the CIFS server.</p> <p>The listed DNS servers must contain the service location records (SRV) needed to locate the Active Directory LDAP servers and domain controllers for the domain that the CIFS server will join.</p>
Active Directory Domain to join	The FQDN of the Active Directory (AD) domain that you want the CIFS server to join.
Credentials authorized to join the domain	The name and password of a Windows account with sufficient privileges to add computers to the specified Organizational Unit (OU) within the AD domain.
CIFS server NetBIOS name	A CIFS server name that is unique in the AD domain.
Organizational Unit	The organizational unit within the AD domain to associate with the CIFS server. The default is CN=Computers.

Task	Action
DNS Domain	The DNS domain for the Cloud Volumes ONTAP storage virtual machine (SVM). In most cases, the domain is the same as the AD domain.

3. Click **Save**.

#### Result

Cloud Volumes ONTAP updates the CIFS server with the changes.

## Moving a volume to avoid capacity issues

Cloud Manager might display an Action Required message that says moving a volume is necessary to avoid capacity issues, but that it cannot provide recommendations to correct the issue. If this happens, you need to identify how to correct the issue and then move one or more volumes.

#### Steps

1. [Identify how to correct the issue](#).
2. Based on your analysis, move volumes to avoid capacity issues:
  - [Move volumes to another system](#).
  - [Move volumes to another aggregate on the same system](#).

## Identifying how to correct capacity issues

If Cloud Manager cannot provide recommendations for moving a volume to avoid capacity issues, you must identify the volumes that you need to move and whether you should move them to another aggregate on the same system or to another system.

#### Steps

1. View the advanced information in the Action Required message to identify the aggregate that has reached its capacity limit.

For example, the advanced information should say something similar to the following: Aggregate aggr1 has reached its capacity limit.

2. Identify one or more volumes to move out of the aggregate:
  - a. In the working environment, click the menu icon, and then click **Advanced** > **Advanced allocation**.
  - b. Select the aggregate, and then click **Info**.
  - c. Expand the list of volumes.

[Screen shot: Shows the list of volumes in an aggregate in the aggregate information dialog box.]

- d. Review the size of each volume and choose one or more volumes to move out of the aggregate.

You should choose volumes that are large enough to free space in the aggregate so that you avoid additional capacity issues in the future.

3. If the system has not reached the disk limit, you should move the volumes to an existing aggregate or a new aggregate on the same system.

For details, see [Moving volumes to another aggregate to avoid capacity issues](#).

4. If the system has reached the disk limit, do any of the following:
  - a. Delete any unused volumes.
  - b. Rearrange volumes to free space on an aggregate.

For details, see [Moving volumes to another aggregate to avoid capacity issues](#).

- c. Move two or more volumes to another system that has space.

For details, see [Moving volumes to another system to avoid capacity issues](#).

## Moving volumes to another system to avoid capacity issues

You can move one or more volumes to another Cloud Volumes ONTAP system to avoid capacity issues. You might need to do this if the system reached its disk limit.

### *About this task*

You can follow the steps in this task to correct the following Action Required message:

Moving a volume is necessary to avoid capacity issues; however, Cloud Manager cannot perform this action for you because the system has reached the disk limit.

### *Steps*

1. Identify a Cloud Volumes ONTAP system that has available capacity, or deploy a new system.
2. Drag and drop the source working environment on the target working environment to perform a one-time data replication of the volume.

For details, see [Replicating data between systems](#).

3. Go to the Replication Status page, and then break the SnapMirror relationship to convert the replicated volume from a data protection volume to a read/write volume.

For details, see [Managing data replication schedules and relationships](#).

4. Configure the volume for data access.

For information about configuring a destination volume for data access, see the [ONTAP 9 Volume Disaster Recovery Express Guide](#).

5. Delete the original volume.

For details, see [Managing existing volumes](#).

## Moving volumes to another aggregate to avoid capacity issues

You can move one or more volumes to another aggregate to avoid capacity issues.

### *About this task*

You can follow the steps in this task to correct the following Action Required message:

Moving two or more volumes is necessary to avoid capacity issues; however, Cloud Manager cannot perform this action for you.

### *Steps*

1. Verify whether an existing aggregate has available capacity for the volumes that you need to move:
  - a. In the working environment, click the menu icon, and then click **Advanced > Advanced allocation**.
  - b. Select each aggregate, click **Info**, and then view the available capacity (aggregate capacity minus used aggregate capacity).

[Screen shot: Shows the total aggregate capacity and used aggregate capacity available in the aggregate information dialog box.]

2. If needed, add disks to an existing aggregate:
  - a. Select the aggregate, and then click **Add disks**.
  - b. Select the number of disks to add, and then click **Add**.
3. If no aggregates have available capacity, create a new aggregate.

For details, see [Creating aggregates](#).

4. Use System Manager or the CLI to move the volumes to the aggregate.
5. In most situations, you can use System Manager to move volumes.

For instructions, see the [ONTAP 9 Volume Move Express Guide](#).



## Copyright Information

Copyright © 2019–2020 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.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

## 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.