



Relocate aggregate ownership within an HA pair

ONTAP 9

NetApp
April 25, 2022

Table of Contents

- Relocate aggregate ownership within an HA pair 1
 - Relocate aggregate ownership 1
 - Commands for aggregate relocation 3

Relocate aggregate ownership within an HA pair

Relocate aggregate ownership

You can change the ownership of aggregates among the nodes in an HA pair without interrupting service from the aggregates.

Both nodes in an HA pair are physically connected to each other's disks or array LUNs. Each disk or array LUN is owned by one of the nodes. Although ownership of disks temporarily changes when a takeover occurs, the aggregate relocation operations either permanently (for example, if done for load balancing) or temporarily (for example, if done as part of takeover) change the ownership of all disks or array LUNs within an aggregate from one node to the other. The ownership changes without any data-copy processes or physical movement of the disks or array LUNs.

About this task

- Because volume count limits are validated programmatically during aggregate relocation operations, it is not necessary to check for this manually.

If the volume count exceeds the supported limit, the aggregate relocation operation fails with a relevant error message.

- You should not initiate aggregate relocation when system-level operations are in progress on either the source or the destination node; likewise, you should not start these operations during the aggregate relocation.

These operations can include the following:

- Takeover
 - Giveback
 - Shutdown
 - Another aggregate relocation operation
 - Disk ownership changes
 - Aggregate or volume configuration operations
 - Storage controller replacement
 - ONTAP upgrade
 - ONTAP revert
- If you have a MetroCluster configuration, you should not initiate aggregate relocation while disaster recovery operations (*switchover*, *healing*, or *switchback*) are in progress.
 - If you have a MetroCluster configuration and initiate aggregate relocation on a switched-over aggregate, the operation might fail because it exceeds the DR partner's volume limit count.
 - You should not initiate aggregate relocation on aggregates that are corrupt or undergoing maintenance.
 - Before initiating the aggregate relocation, you should save any core dumps on the source and destination nodes.

Steps

1. View the aggregates on the node to confirm which aggregates to move and ensure they are online and in good condition:

```
storage aggregate show -node source-node
```

The following command shows six aggregates on the four nodes in the cluster. All aggregates are online. Node1 and Node3 form an HA pair and Node2 and Node4 form an HA pair.

```
cluster::> storage aggregate show
```

Aggregate	Size	Available	Used%	State	#Vols	Nodes	RAID Status
aggr_0	239.0GB	11.13GB	95%	online	1	node1	raid_dp, normal
aggr_1	239.0GB	11.13GB	95%	online	1	node1	raid_dp, normal
aggr_2	239.0GB	11.13GB	95%	online	1	node2	raid_dp, normal
aggr_3	239.0GB	11.13GB	95%	online	1	node2	raid_dp, normal
aggr_4	239.0GB	238.9GB	0%	online	5	node3	raid_dp, normal
aggr_5	239.0GB	239.0GB	0%	online	4	node4	raid_dp, normal

6 entries were displayed.

2. Issue the command to start the aggregate relocation:

```
storage aggregate relocation start -aggregate-list aggregate-1, aggregate-2...  
-node source-node -destination destination-node
```

The following command moves the aggregates aggr_1 and aggr_2 from Node1 to Node3. Node3 is Node1's HA partner. The aggregates can be moved only within the HA pair.

```
cluster::> storage aggregate relocation start -aggregate-list aggr_1,  
aggr_2 -node node1 -destination node3  
Run the storage aggregate relocation show command to check relocation  
status.  
node1::storage aggregate>
```

3. Monitor the progress of the aggregate relocation with the storage aggregate relocation show command:

```
storage aggregate relocation show -node source-node
```

The following command shows the progress of the aggregates that are being moved to Node3:

```
cluster::> storage aggregate relocation show -node node1
Source Aggregate    Destination    Relocation Status
-----
node1
      aggr_1        node3          In progress, module: wafl
      aggr_2        node3          Not attempted yet
2 entries were displayed.
node1::storage aggregate>
```

When the relocation is complete, the output of this command shows each aggregate with a relocation status of Done.

Commands for aggregate relocation

There are specific ONTAP commands for relocating aggregate ownership within an HA pair.

If you want to...	Use this command...
Start the aggregate relocation process	<code>storage aggregate relocation start</code>
Monitor the aggregate relocation process	<code>storage aggregate relocation show</code>

Related information

[ONTAP 9 commands](#)

Copyright Information

Copyright © 2022 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.