



Recable the system and reassign disks - AFF A700 and FAS9000

ONTAP Systems

Martin Houser, Thripura Naidu Parangsam, Doug Thompson
October 21, 2021

Table of Contents

Recable the system and reassign disks - AFF A700 and FAS9000	1
Step 1: Recable the system	1
Step 2: Reassign disks	1

Recable the system and reassign disks - AFF A700 and FAS9000

Continue the replacement procedure by recabling the storage and confirming disk reassignment.

Step 1: Recable the system

After running diagnostics, you must recable the controller module's storage and network connections.

Steps

1. Recable the system.
2. Verify that the cabling is correct by using [Active IQ Config Advisor](#).
 - a. Download and install Config Advisor.
 - b. Enter the information for the target system, and then click Collect Data.
 - c. Click the Cabling tab, and then examine the output. Make sure that all disk shelves are displayed and all disks appear in the output, correcting any cabling issues you find.
 - d. Check other cabling by clicking the appropriate tab, and then examining the output from Config Advisor.

Step 2: Reassign disks

If the storage system is in an HA pair, the system ID of the new controller module is automatically assigned to the disks when the giveback occurs at the end of the procedure. You must confirm the system ID change when you boot the *replacement* node and then verify that the change was implemented.

This procedure applies only to systems running ONTAP in an HA pair.

1. If the *replacement* node is in Maintenance mode (showing the `*>` prompt, exit Maintenance mode and go to the LOADER prompt: `halt`
2. From the LOADER prompt on the *replacement* node, boot the node, entering `y` if you are prompted to override the system ID due to a system ID mismatch: `boot_ontap`
3. Wait until the `Waiting for giveback...` message is displayed on the *replacement* node console and then, from the healthy node, verify that the new partner system ID has been automatically assigned: `storage failover show`

In the command output, you should see a message that the system ID has changed on the impaired node, showing the correct old and new IDs. In the following example, node2 has undergone replacement and has a new system ID of 151759706.

```
node1> storage failover show
```

Node	Partner	Takeover Possible	State Description
-----	-----	-----	
node1	node2	false	System ID changed on partner (Old: 151759706), In takeover node2 (HA mailboxes)
	node1	-	151759755, New: Waiting for giveback

4. From the healthy node, verify that any coredumps are saved:

- a. Change to the advanced privilege level: `set -privilege advanced`

You can respond `y` when prompted to continue into advanced mode. The advanced mode prompt appears (`>`).

- b. Save any coredumps: `system node run -node local-node-name partner savecore`

- c. Wait for savecore command to complete before issuing the giveback.

You can enter the following command to monitor the progress of the savecore command: `system node run -node local-node-name partner savecore -s`

- d. Return to the admin privilege level: `set -privilege admin`

5. Give back the node:

- a. From the healthy node, give back the replaced node's storage: `storage failover giveback -ofnode replacement_node_name`

the *replacement* node takes back its storage and completes booting.

If you are prompted to override the system ID due to a system ID mismatch, you should enter `y`.



If the giveback is vetoed, you can consider overriding the vetoes.

[Find the High-Availability Configuration Guide for your version of ONTAP 9](#)

- b. After the giveback has been completed, confirm that the HA pair is healthy and that takeover is possible: `storage failover show`

The output from the `storage failover show` command. should not include the System ID changed on partner message.

6. Verify that the disks were assigned correctly: `storage disk show -ownership`

The disks belonging to the *replacement* node should show the new system ID. In the following example, the disks owned by node1 now show the new system ID, 1873775277:

```
node1> storage disk show -ownership
```

Disk Reserver	Aggregate Pool	Home	Owner	DR Home	Home ID	Owner ID	DR Home ID
1.0.0	aggr0_1	node1	node1	-	1873775277	1873775277	-
1873775277	Pool10						
1.0.1	aggr0_1	node1	node1		1873775277	1873775277	-
1873775277	Pool10						
.							
.							
.							

7. If the system is in a MetroCluster configuration, monitor the status of the node: `metrocluster node show`

The MetroCluster configuration takes a few minutes after the replacement to return to a normal state, at which time each node will show a configured state, with DR Mirroring enabled and a mode of normal. The `metrocluster node show -fields node-systemid` command output displays the old system ID until the MetroCluster configuration returns to a normal state.

8. If the node is in a MetroCluster configuration, depending on the MetroCluster state, verify that the DR home ID field shows the original owner of the disk if the original owner is a node on the disaster site.

This is required if both of the following are true:

- The MetroCluster configuration is in a switchover state.
- the *replacement* node is the current owner of the disks on the disaster site.

[Disk ownership changes during HA takeover and MetroCluster switchover in a four-node MetroCluster configuration](#)

9. If your system is in a MetroCluster configuration, verify that each node is configured: `metrocluster node show - fields configuration-state`

```
node1_siteA::> metrocluster node show -fields configuration-state
```

dr-group-id	cluster node	configuration-state
-----	-----	-----
1 node1_siteA	node1mcc-001	configured
1 node1_siteA	node1mcc-002	configured
1 node1_siteB	node1mcc-003	configured
1 node1_siteB	node1mcc-004	configured

```
4 entries were displayed.
```

10. Verify that the expected volumes are present for each node: `vol show -node node-name`
11. If you disabled automatic takeover on reboot, enable it from the healthy node: `storage failover modify -node replacement-node-name -onreboot true`

Copyright Information

Copyright © 2021 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.