

Choosing the correct recovery procedure

ONTAP MetroCluster

Martin Houser, Thom Illingworth, Zachary Wambold June 21, 2021

This PDF was generated from https://docs.netapp.com/us-en/ontap-metrocluster/disaster-recovery/concept_choosing_the_correct_recovery_procedure_parent_concept.html on September 24, 2021. Always check docs.netapp.com for the latest.

Table of Contents

| Choosing the correct recovery procedure | . 1 |
|---|-----|
| Controller module failure scenarios during MetroCluster FC-to-IP Transition | . 1 |
| Controller module failure scenarios in eight-node MetroCluster configurations | . 2 |
| Controller module failure scenarios in two-node MetroCluster configurations | . 5 |

Choosing the correct recovery procedure

After a failure in a MetroCluster configuration, you must select the correct recovery procedure. Use the following table and examples to select the appropriate recovery procedure.

| Scope of failures at disaster site | Procedure |
|--|---|
| No controller module failureOther hardware has failed | Recovering from a non-controller failure |
| Single controller module failure or failure of FRU components within the controller module Drives have not failed | If a failure is limited to a single controller module, you must use the controller module FRU replacement procedure for the platform model. In a four or eightnode MetroCluster configuration, such a failure is isolated to the local HA pair. Note: The controller module FRU replacement procedure can be used in a two-node MetroCluster configuration if there are no drive or other hardware failures. AFF and FAS Documentation Center |
| Single controller module failure or failure of FRU components within the controller module Drives have failed | Recovering from a multi-controller or storage failure |
| Single controller module failure or failure of FRU components within the controller module Drives have not failed Additional hardware outside the controller module has failed | Recovering from a multi-controller or storage failure You should skip all steps for drive assignment. |
| Multiple controller module failure (with or without additional failures) within a DR group | Recovering from a multi-controller or storage failure |

Controller module failure scenarios during MetroCluster FC-to-IP Transition

The recovery procedure can be used if a site failure occurs during transition. However, it can only be used if the configuration is a stable mixed configuration, with the FC DR group and IP DR group both fully configured. The output of the metrocluster node show command should show both DR groups with all eight nodes.



If the failure occurred during transition when the nodes are in the process of being added or removed, you must contact technical support.

Controller module failure scenarios in eight-node MetroCluster configurations

Failure scenarios:

- Single controller module failures in a single DR group
- Two controller module failures in a single DR group
- Single controller module failures in separate DR groups
- Three controller module failures spread across the DR groups

Single controller module failures in a single DR group

In this case the failure is limited to an HA pair.

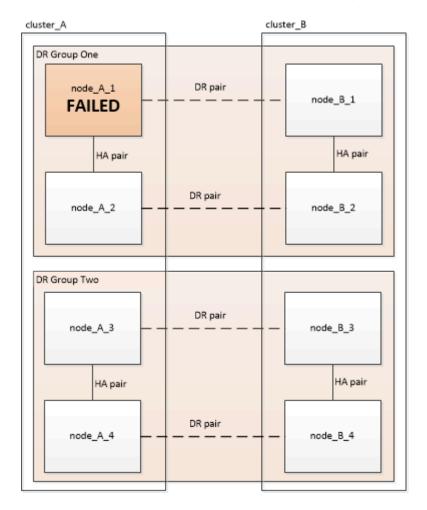
• If no storage requires replacement, you can use the controller module FRU replacement procedure for the platform model.

AFF and FAS Documentation Center

• If storage requires replacement, you can use the multi-controller module recovery procedure.

Recovering from a multi-controller or storage failure

This scenario applies to four-node MetroCluster configurations also.

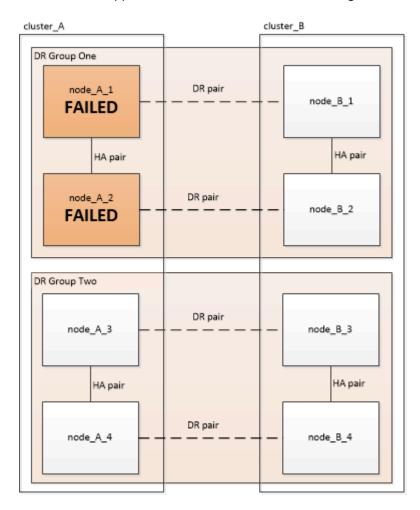


Two controller module failures in a single DR group

In this case the failure requires a switchover. You can use the multi-controller module failure recovery procedure.

Recovering from a multi-controller or storage failure

This scenario applies to four-node MetroCluster configurations also.



Single controller module failures in separate DR groups

In this case the failure is limited to separate HA pairs.

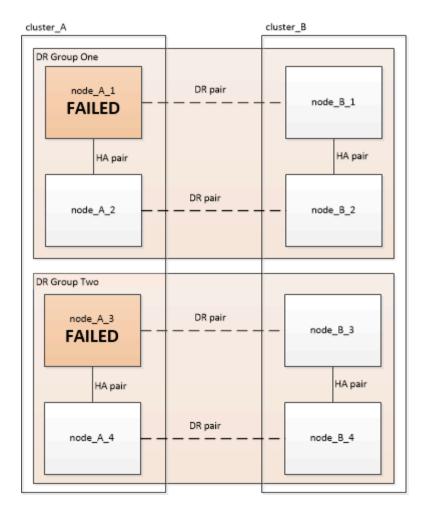
• If no storage requires replacement, you can use the controller module FRU replacement procedure for the platform model.

The FRU replacement procedure is performed twice, once for each failed controller module.

AFF and FAS Documentation Center

• If storage requires replacement, you can use the multi-controller module recovery procedure.

Recovering from a multi-controller or storage failure



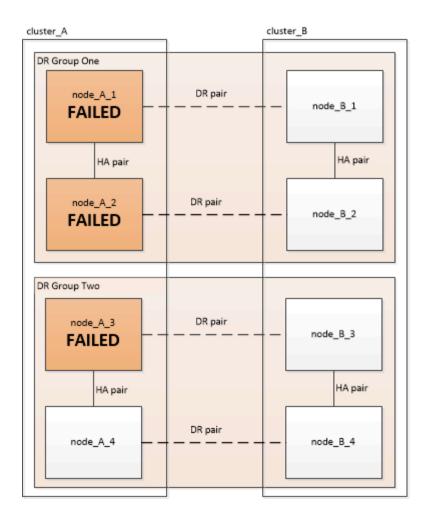
Three controller module failures spread across the DR groups

In this case the failure requires a switchover. You can use the multi-controller module failure recovery procedure for DR Group One.

Recovering from a multi-controller or storage failure

You can use the platform-specific controller module FRU replacement procedure for DR Group Two.

AFF and FAS Documentation Center



Controller module failure scenarios in two-node MetroCluster configurations

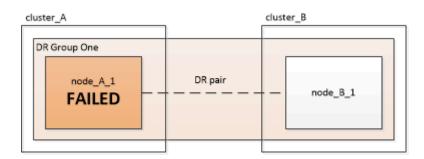
The procedure you use depends on the extent of the failure.

• If no storage requires replacement, you can use the controller module FRU replacement procedure for the platform model.

AFF and FAS Documentation Center

• If storage requires replacement, you can use the multi-controller module recovery procedure.

Recovering from a multi-controller or storage failure



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.