



# **Install and cable the new controller module**

## **ONTAP MetroCluster**

NetApp  
February 23, 2022

This PDF was generated from [https://docs.netapp.com/us-en/ontap-metrocluster/upgrade/task\\_install\\_and\\_cable\\_the\\_new\\_controller.html](https://docs.netapp.com/us-en/ontap-metrocluster/upgrade/task_install_and_cable_the_new_controller.html) on February 23, 2022. Always check docs.netapp.com for the latest.

# Table of Contents

- Install and cable the new controller module . . . . . 1
  - Installing and cabling the new controller module . . . . . 1
  - Cabling the new controller module's FC-VI and HBA ports to the FC switches . . . . . 2
  - Cabling the new controller module's cluster peering connections . . . . . 2

# Install and cable the new controller module

## Installing and cabling the new controller module

You must physically install the new controller module in the chassis, and then cable it.

### Steps

1. If you have an I/O expansion module (IOXM) in your system and are creating a single-chassis HA pair, you must uncable and remove the IOXM.

You can then use the empty bay for the new controller module. However, the new configuration will not have the extra I/O provided by the IOXM.

2. Physically install the new controller module and, if necessary, install additional fans:

If you are adding a controller module...	Then perform these steps...
To an empty bay to create a single-chassis HA pair and the system belongs to one of the following platforms:	<ol style="list-style-type: none"><li>a. Remove the blank plate in the rear of the chassis that covers the empty bay that will contain the new controller module.</li><li>b. Gently push the controller module halfway into the chassis.</li></ol> <p>To prevent the controller module from automatically booting, do not fully seat it in the chassis until later in this procedure.</p>
In a separate chassis from its HA partner to create a dual-chassis HA pair when the existing configuration is in a controller-IOX module configuration. <ul style="list-style-type: none"><li>• FAS8200</li><li>• 80xx</li></ul>	Install the new system in the rack or system cabinet.

3. Cable the cluster network connections, as necessary:

- a. Identify the ports on the controller module for the cluster connections.

[AFF A320 systems: Installation and setup](#)

[AFF A220/FAS2700 Systems Installation and Setup Instructions](#)

[AFF A800 Systems Installation and Setup Instructions](#)

[AFF A300 Systems Installation and Setup Instructions](#)

[FAS8200 Systems Installation and Setup Instructions](#)

- b. If you are configuring a switched cluster, identify the ports that you will use on the cluster network switches.

See the *Clustered Data ONTAP Switch Setup Guide for Cisco Switches*, *NetApp 10G Cluster-Mode Switch Installation Guide* or *NetApp 1G Cluster-Mode Switch Installation Guide*, depending on what switches you are using.

c. Connect cables to the cluster ports:

If the cluster is...	Then...
A two-node switchless cluster	Directly connect the cluster ports on the existing controller module to the corresponding cluster ports on the new controller module.
A switched cluster	Connect the cluster ports on each controller to the ports on the cluster network switches identified in Substep b.

## Cabling the new controller module's FC-VI and HBA ports to the FC switches

The new controller module's FC-VI ports and HBAs (host bus adapters) must be cabled to the site FC switches.

### Steps

1. Cable the FC-VI ports and HBA ports, using the table for your configuration and switch model.
  - [Port assignments for FC switches when using ONTAP 9.1 and later](#)
  - [Port assignments for FC switches when using ONTAP 9.0](#)
  - [Port assignments for systems using two initiator ports](#)

## Cabling the new controller module's cluster peering connections

You must cable the new controller module to the cluster peering network so that it has connectivity with the cluster on the partner site.

### About this task

At least two ports on each controller module should be used for cluster peering.

The recommended minimum bandwidth for the ports and network connectivity is 1 GbE.

### Steps

1. Identify and cable at least two ports for cluster peering and verify they have network connectivity with the partner cluster.

## 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.