



Upgrading or downgrading the firmware on a Cisco FC switch

ONTAP MetroCluster

Ivana Devine
April 12, 2021

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

Table of Contents

Upgrading or downgrading the firmware on a Cisco FC switch 1

Upgrading or downgrading the firmware on a Cisco FC switch

To upgrade or downgrade the firmware on a Cisco FC switch you must use the Cisco-specific commands to disable the switch, perform and verify the upgrade, and reboot and reenable the switch.

- The system must be properly cabled.
- All paths to the storage shelves must be available.
- The disk shelf stacks must be stable.
- The FC switch fabric must be healthy.
- All components in the system must be healthy.
- The system must be operating normally.
- You need the admin password and access to an FTP or SCP server.

The switch fabric is disabled during the firmware upgrade or downgrade and the MetroCluster configuration relies on the second fabric to continue operation.

You must repeat this task on each of the switch fabrics in succession to ensure that all switches are running the same firmware version.

You must have the firmware files.



This procedure is nondisruptive and takes approximately one hour to complete.

Steps

1. Log in to each of the switches in the fabric.

In the examples, the switches are called FC_switch_A_1 and FC_switch_B_1.

2. Determine whether there is enough space in the bootflash directory on each switch:

```
dir bootflash
```

If not, delete the unwanted firmware files by using the `delete bootflash:file_name` command.

3. Copy the kickstart and system files to the switches:

```
copy source_file target_file
```

In the following example, the kickstart file (m9200-s2ek9-kickstart-mz.5.2.1.bin) and the system file (m9200-s2ek9-mz.5.2.1.bin) are located on the FTP server 10.10.10.55 in the /firmware/ path.

The following example shows the commands issued on FC_switch_A_1:

```
FC_switch_A_1# copy ftp://10.10.10.55/firmware/m9200-s2ek9-kickstart-  
mz.5.2.1.bin bootflash:m9200-s2ek9-kickstart-mz.5.2.1.bin  
FC_switch_A_1# copy ftp://10.10.10.55/firmware/m9200-s2ek9-mz.5.2.1.bin  
bootflash:m9200-s2ek9-mz.5.2.1.bin
```

4. Disable all the VSANs on both the switches in this fabric.
5. Install the desired firmware on the switches:

```
install all system bootflash:systemfile_name kickstart  
bootflash:kickstartfile_name
```

The following example shows the commands issued on FC_switch_A_1:

```
FC_switch_A_1# install all system bootflash:m9200-s2ek9-mz.5.2.1.bin  
kickstart bootflash:m9200-s2ek9-kickstart-mz.5.2.1.bin  
Enter Yes to confirm the installation.
```

6. Check the version of the firmware on each switch to make sure the correct version was installed:

```
show version
```

7. Enable all the VSANs on both the switches in this fabric.
8. Verify the operation of the MetroCluster configuration in ONTAP:
 - a. Check whether the system is multipathed: + **node run -node node-name sysconfig -a**
 - b. Check for any health alerts on both clusters: + **system health alert show**
 - c. Confirm the MetroCluster configuration and that the operational mode is normal: + **metrocluster show**
 - d. Perform a MetroCluster check: + **metrocluster check run**
 - e. Display the results of the MetroCluster check: + **metrocluster check show**
 - f. Check for any health alerts on the switches (if present): + **storage switch show**
 - g. Run Config Advisor.

[NetApp Downloads: Config Advisor](#)

- h. After running Config Advisor, review the tool's output and follow the recommendations in the output to address any issues discovered.
9. Repeat this procedure for the second switch fabric.

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.