

Replacing a failed SolidFire chassis

You might need to replace the chassis if the fan, central processing unit (CPU), or dual inline memory module (DIMM) fails, or to fix overheating issues or problems with the boot process. Cluster faults in the NetApp Element software user interface (UI) and the blinking amber light in the front of the chassis are indications of a possible need for chassis replacement. You must contact NetApp Support before you proceed.

Before you begin

- You have contacted NetApp Support.
 If you are ordering a replacement, you must have a case opened with NetApp Support.
- You have obtained the replacement chassis.
- You have an electrostatic discharge (ESD) wristband, or you have taken other antistatic protection.
- If you need to perform the Return to Factory Image (RTFI) process, you have obtained the USB key.

 NetApp Support will help you decide if RTFI is needed. See *Create an RTFI key Knowledge Base article (login required)*.
- You have a keyboard and monitor.

About this task

The instructions in this document apply if you have a one-rack unit (1U) chassis with any of the following storage and Fibre Channel models:

- SF2405
- SF3010
- SF4805
- SF6010
- SF9605
- SF9608
- SF9010
- SF19210
- SF38410
- SF-FCN-01
- FC0025

Steps

1. Locate the service tag of the failed chassis and verify that the serial number matches the number on the case you opened with NetApp Support when you ordered the replacement.

You can locate the service tag from the front of the chassis.

The following figure is an example of the service tag:



Note: The above figure is an example. The exact location of the service tag might vary depending on your hardware model.

- 2. Plug in the keyboard and monitor to the back of the failed chassis.
- **3.** Verify chassis information with NetApp Support.
- **4.** Power down the chassis.
- 5. Label the drives in the front of the chassis and cables at the back.

Note: Fibre Channel nodes do not have drives in the front.

- **6.** Remove the power supply units and cables.
- 7. Remove the drives carefully, and place them on an antistatic, level surface.

Note: If you have a Fibre Channel node, you can skip this step.

8. Remove the chassis by pressing the latch or unscrewing the thumbscrew, based on your hardware model.

You must package and return the failed chassis to NetApp.

9. Optional: Remove the rails and install the new rails that were shipped with your replacement chassis.

You can choose to reuse the existing rails. If you are reusing the existing rails, you can skip this step.

- **10.** Slide the replacement chassis on to the rails.
- 11. For storage nodes, insert the drives from the failed chassis to the replacement chassis.

Note: You must insert the drives in the same slots as they were in the failed chassis.

- 12. Install the power supply units.
- 13. Insert the power supply cables, and the 1GbE and 10GbE cables in their original ports.

Small form-factor pluggable (SFP) transceivers might be inserted in the 10GbE ports of the replacement chassis. You should remove them before you cable the 10GbE ports.

- 14. If you have determined that you do not need to perform the RTFI process on the node, boot the node, and wait until the terminal user interface (TUI) appears. Proceed to step 16 and allow the cluster to re-image the node automatically when you add it by using the UI.
- 15. Optional: If NetApp Support recommends re-imaging the node with a USB key, perform the following substeps:
 - a. Power on the chassis. It boots with the RTFI key image.

- b. At the first prompt, type Y to image the storage node.
- c. At the second prompt, type N for hardware health checks.

If the RTFI script detects a problem with a hardware component, it displays an error in the console. If you see an error, contact NetApp Support. After the RTFI process completes, the node shuts down.

- d. Remove the USB key from the USB slot.
- e. Boot the newly imaged node, and wait for the TUI to appear.
- 16. Configure the network and cluster information from the TUI.

The NetApp Element Software User Guide provides instructions for configuration. You can also contact NetApp Support for assistance.

- 17. Add the new node to the cluster using the cluster TUI.
- 18. Pack and return the failed chassis.

NetApp Support will provide the return shipping label.

Where to find product documentation and other information

You can learn more about using and managing NetApp HCI and SolidFire all-flash storage from the resources available in the Documentation Centers and Resources pages for both products.

In the Documentation Centers, you can also find information about hardware installation and maintenance, additional content resources available, links to known issues and resolved issues, and the latest release notes. On the Resources pages, you can find links to data sheets, technical reports, white papers, and videos.

- NetApp HCI Documentation Center
- NetApp HCI Resources page
- SolidFire and Element 11.3 Documentation Center
- SolidFire Resources page

Contacting NetApp Support

If you need help with or have questions or comments about NetApp products, contact NetApp Support.

- Web: mysupport.netapp.com
- Phone:
 - 888.4.NETAPP (888.463.8277) (US and Canada)
 - 00.800.44.638277 (EMEA/Europe)
 - +800.800.80.800 (Asia/Pacific)

Copyright

Copyright © 2019 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, 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.

Data contained herein pertains to a commercial item (as defined in FAR 2.101) and is proprietary to NetApp, Inc. The U.S. Government has a non-exclusive, non-transferrable, non-sublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b).

Trademark

NETAPP, the NETAPP logo, and the marks listed on the NetApp Trademarks page are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.

http://www.netapp.com/us/legal/netapptmlist.aspx

How to send comments about documentation and receive update notifications

You can help us to improve the quality of our documentation by sending us your feedback. You can receive automatic notification when production-level (GA/FCS) documentation is initially released or important changes are made to existing production-level documents.

If you have suggestions for improving this document, send us your comments by email.

doccomments@netapp.com

To help us direct your comments to the correct division, include in the subject line the product name, version, and operating system.

If you want to be notified automatically when production-level documentation is released or important changes are made to existing production-level documents, follow Twitter account @NetAppDoc.

You can also contact us in the following ways:

- NetApp, Inc., 1395 Crossman Ave., Sunnyvale, CA 94089 U.S.
- Telephone: +1 (408) 822-6000

• Fax: +1 (408) 822-4501

• Support telephone: +1 (888) 463-8277