



# Upgrade sequences

HCI

NetApp  
September 16, 2021

# Table of Contents

- Upgrade sequences ..... 1
  - Upgrade your NetApp HCI system for version 1.9 or 1.9P1 ..... 1
  - Upgrade your NetApp SolidFire all-flash storage system for Element 12.3.x ..... 2

# Upgrade sequences

## Upgrade your NetApp HCI system for version 1.9 or 1.9P1

You can keep your NetApp HCI system up-to-date after deployment by sequentially upgrading all NetApp HCI software components.

These components include management services, HealthTools, NetApp Hybrid Cloud Control (HCC), Element software, management node, compute firmware, compute drivers, and the Element Plug-in for vCenter Server.

### What you'll need

- You are running management node 11.3 or later. Newer versions of the management node have a modular architecture that provides individual services.



To check the version, log in to your management node and view the Element version number in the login banner. If you do not have 11.3, see [Upgrade your management node](#).

- You have upgraded your management services to at least version 2.1.326.

Upgrades using HCC are not available in earlier service bundle versions.

- You have ensured that the system time on all nodes is synced and that NTP is correctly configured for the storage cluster and nodes. Each node must be configured with a DNS nameserver in the per-node web UI (`https://[IP address]:442`) with no unresolved cluster faults related to time skew.

### Steps

1. [Update management services from Hybrid Cloud Control](#).



If you are updating management services to version 2.16 or later and you are running a management node 11.3 to 11.8, you will need to increase your management node VM's RAM prior to updating management services.



You must update to the latest management services bundle before upgrading your Element software.

2. [\(Optional\) Upgrade to the latest HealthTools](#).



Upgrading HealthTools is only required if the management node and Element software you are running is 11.1 or earlier. HealthTools are not required for performing Element upgrades using NetApp Hybrid Cloud Control.

3. [Run Element storage health checks prior to upgrading storage](#).
4. [Upgrade your Element software and storage firmware](#).
5. [\(Optional\) Upgrade your Element storage firmware only](#).



You might perform this task when a new storage firmware upgrade becomes available outside of a major release.

6. [\(Optional\) Upgrade your management node](#).



Upgrading the management node operating system is no longer required to upgrade Element software on the storage cluster. If the management node is version 11.3 or higher, you can simply upgrade the management services to the latest version to perform Element upgrades using NetApp Hybrid Cloud Control. Follow the management node upgrade procedure for your scenario if you would like to upgrade the management node operating system for other reasons, such as security remediation.

7. [Upgrade your Element Plug-in for vCenter Server.](#)
8. [Run compute node health checks prior to upgrading compute firmware.](#)
9. [Update your compute node drivers.](#)
10. [Update your compute node firmware using NetApp Hybrid Cloud Control](#) or [Automate your compute firmware upgrades with Ansible.](#)

## Find more information

- [NetApp Element Plug-in for vCenter Server](#)
- [NetApp HCI Resources Page](#)

# Upgrade your NetApp SolidFire all-flash storage system for Element 12.3.x

You can keep your SolidFire Element storage system up-to-date after deployment by sequentially upgrading all NetApp storage components.

These components include management services, HealthTools, NetApp Hybrid Cloud Control (HCC), Element software, management node, and (depending on your installation) the Element Plug-in for vCenter Server.

## What you'll need

- You are running management node 11.3 or later. Newer versions of the management node have a modular architecture that provides individual services.



To check the version, log in to your management node and view the Element version number in the login banner. If you do not have 11.3, see [Upgrade your management node.](#)

- You have upgraded your management services to at least version 2.1.326.

Upgrades using HCC are not available in earlier service bundle versions.

- You have ensured that the system time on all nodes is synced and that NTP is correctly configured for the storage cluster and nodes. Each node must be configured with a DNS nameserver in the per-node web UI ([https://\[IP address\]:442](https://[IP address]:442)) with no unresolved cluster faults related to time skew.

## Steps

1. [Update management services from Hybrid Cloud Control.](#)



If you are updating management services to version 2.16 or later and you are running a management node 11.3 to 11.8, you will need to increase your management node VM's RAM prior to updating management services.



You must update to the latest management services bundle before upgrading your Element software.

## 2. (Optional) Upgrade to the latest HealthTools.



Upgrading HealthTools is only required if the management node and Element software you are running is 11.1 or earlier. HealthTools are not required for performing Element upgrades using NetApp Hybrid Cloud Control.

## 3. Run Element storage health checks prior to upgrading storage.

## 4. Upgrade your Element software and storage firmware.

## 5. (Optional) Upgrade your Element storage firmware only.



You might perform this task when a new storage firmware upgrade becomes available outside of a major release.

## 6. (Optional) Upgrade your management node.



Upgrading the management node operating system is no longer required to upgrade Element software on the storage cluster. If the management node is version 11.3 or higher, you can simply upgrade the management services to the latest version to perform Element upgrades using NetApp Hybrid Cloud Control. Follow the management node upgrade procedure for your scenario if you would like to upgrade the management node operating system for other reasons, such as security remediation.

## 7. Upgrade your Element Plug-in for vCenter Server.

### Find more information

- [NetApp Element Plug-in for vCenter Server](#)
- [NetApp HCI Resources Page](#)

## 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.