



Power your NetApp HCI system off or on HCI

NetApp
November 02, 2020

This PDF was generated from https://docs.netapp.com/us-en/hci/concept_nde_hci_power_off_on.html on November 02, 2020. Always check docs.netapp.com for the latest.



Table of Contents

- Power your NetApp HCI system off or on..... 1
 - Powering your NetApp HCI system off or on..... 1
 - Power off compute resources for a NetApp HCI system..... 1
 - Power off storage resources for a NetApp HCI system 2
 - Power on storage resources for a NetApp HCI system 3
 - Power on compute resources for a NetApp HCI system..... 3

Power your NetApp HCI system off or on

Powering your NetApp HCI system off or on

You can power off or power on your NetApp HCI system if you have a scheduled outage, need to perform hardware maintenance, or need to expand the system. Use the following tasks to power off or power on your NetApp HCI system as required.

You might need to power off your NetApp HCI system under a number of different circumstances, such as:

- Scheduled outages
- Chassis fan replacements
- Firmware upgrades
- Storage or compute resource expansion

The following is an overview of the tasks you need to complete to power off a NetApp HCI system:

- Power off all virtual machines except the VMware vCenter server (vCSA).
- Power off all ESXi servers except the one hosting the vCSA.
- Power off the vCSA.
- Power off the NetApp HCI storage system.

The following is an overview of the tasks you need to complete to power on a NetApp HCI system:

- Power on all physical storage nodes.
- Power on all physical compute nodes.
- Power on the vCSA.
- Verify the system and power on additional virtual machines.

Find more information

- [Firmware and driver versions in NetApp HCI and NetApp Element software](#)

Power off compute resources for a NetApp HCI system

To power off NetApp HCI compute resources, you need to power off individual VMware ESXi hosts as well as the VMware vCenter Server Appliance in a certain order.

Steps

1. Log in to the vCenter instance controlling the NetApp HCI system and determine the ESXi machine hosting the vCenter Server Virtual Appliance (vCSA).
2. After you have determined the ESXi host running the vCSA, power down all other virtual machines other than the vCSA as follows:
 - a. Select a virtual machine.
 - b. Right-click and select **Power > Shut Down Guest OS**.
3. Power off all ESXi hosts that are not the ESXi host running the vCSA.
4. Power off the vCSA.

This will cause the vCenter session to end because the vCSA disconnects during the power-off process. All virtual machines should now be shut down with only one ESXi host powered on.

5. Log in to the running ESXi host.
6. Verify that all virtual machines on the host are powered off.
7. Shut down the ESXi host.

This disconnects any iSCSI sessions open to the NetApp HCI storage cluster.

Find more information

- [Firmware and driver versions in NetApp HCI and NetApp Element software](#)

Power off storage resources for a NetApp HCI system

When you power off storage resources for NetApp HCI, you need to use the **Shutdown** Element API method to properly halt the storage nodes.

Steps

After you power off the compute resources, you use a web browser to shut down all the nodes of the NetApp HCI storage cluster.

1. Log in to the storage cluster and verify that you are connected to the correct MVIP.
2. Verify that the iSCSI session count is zero.
3. Navigate to **Cluster > Nodes > Active**, and record the node IDs for all of the active nodes in the cluster.
4. To power off the NetApp HCI storage cluster, open a web browser and use the following URL to invoke the power off and halt procedure, where **{MVIP}** is the management IP address of the NetApp HCI storage system and the **nodes=[]** array includes the node IDs that you recorded in step 2. For example:

```
https://{MVIP}/json-rpc/1.0?method=Shutdown&nodes=[1,2,3,4]&option=halt
```

5. Enter the cluster administrator user name and password.
6. Validate that the API call returned successfully by verifying that all storage cluster nodes are included in the **successful** section of the API result.

You have successfully powered off all the NetApp HCI storage nodes.

Find more information

- [Firmware and driver versions in NetApp HCI and NetApp Element software](#)

Power on storage resources for a NetApp HCI system

You can power on NetApp HCI after the scheduled outage is complete.

Steps

1. Power on all the storage nodes using either the physical power button or the BMC.
2. If using the BMC, log in to each node and navigate to **Remote Control > Power Control > Power On Server**.
3. When all the storage nodes are online, log in to the NetApp HCI storage system and verify that all nodes are operational.

Find more information

- [Firmware and driver versions in NetApp HCI and NetApp Element software](#)

Power on compute resources for a NetApp HCI system

You can power on compute resources for a NetApp HCI system after the scheduled outage is complete.

Steps

1. Power on compute nodes using the same steps you performed for powering on the storage nodes.
2. When all the compute nodes are operational, log in to the ESXi host that was running the vCSA.
3. Log in to the compute host and verify that it sees all the NetApp HCI datastores. For a typical NetApp HCI system, you should see all the ESXi local datastores and at least the following shared datastores:

1. Assuming all storage is accessible, power on the vCSA and any other required virtual machines as follows:
 - a. Select the virtual machines in the navigator, select all the virtual machines that you want to power on, and click the **Power on** button.
2. After you power on the virtual machines, wait for approximately 5 minutes and then use a web browser to navigate to the IP address or FQDN of the vCSA appliance.

If you do not wait long enough, a message appears stating that the vSphere Client web server is initializing.

3. After the vSphere Client initializes, log in and verify that all ESXi hosts and virtual machines are online.

Find more information

- [Firmware and driver versions in NetApp HCI and NetApp Element software](#)

Copyright Information

Copyright © 2020 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.