



Expand NetApp HCI compute resources

HCI

Ann-Marie Grissino, Michael Wallis
June 01, 2020

This PDF was generated from https://docs.netapp.com/us-en/hci/docs/task_hcc_expand_compute.html on September 24, 2020. Always check docs.netapp.com for the latest.

Table of Contents

Expand NetApp HCI compute resources 1

Expand NetApp HCI compute resources

After you finish NetApp HCI deployment, you can expand and configure NetApp HCI compute resources by using NetApp Hybrid Cloud Control.

Before you begin

- Ensure that the vSphere instance of NetApp HCI is using vSphere Enterprise Plus licensing if you are expanding a deployment with Virtual Distributed Switches.
- Ensure that none of the vCenter or vSphere instances in use with NetApp HCI have expired licenses.
- Ensure that you have free and unused IPv4 addresses on the same network segment as existing nodes (each new node must be installed on the same network as existing nodes of its type).
- Ensure that you have the vCenter administrator account credentials ready.
- Ensure that you have performed the following actions with each new node:
 - Installed the new node in the NetApp HCI chassis by following the installation instructions available in the [NetApp HCI Documentation Center](#).
 - Cabled and powered on the new node
- Ensure that each new node uses the same network topology and cabling as the existing storage or compute clusters.

Steps

1. Open a web browser and browse to the IP address of the management node. For example:

```
https://[management node IP address]
```

2. Log in to NetApp Hybrid Cloud Control by providing the NetApp HCI storage cluster administrator credentials.
3. Click **Expand** at the top right corner of the interface.

The browser opens the NetApp Deployment Engine.

4. Log in to the NetApp Deployment Engine by providing the NetApp HCI storage cluster administrator credentials.
5. On the **Welcome** page, click **Yes** and click **Continue**.
6. On the **End User License** page, read the VMware End User License Agreement and click **I accept** to accept the terms and click **Continue**.
7. On the **vCenter** page, complete the following steps:
 - a. Enter a FQDN or IP address and administrator credentials for the vCenter instance associated

with your NetApp HCI installation.

b. Click **Continue**.

c. Select a vSphere datacenter where you want to add the compute nodes, or click **Create New Datacenter** to add the compute nodes to a new datacenter.



If you click Create New Datacenter, the Cluster field is automatically populated.

d. If you selected an existing datacenter, select a vSphere cluster with which the new compute nodes should be associated.



If NetApp HCI cannot recognize the network settings of the cluster you have selected for expansion, ensure that the vmkernel and vmnic mapping for the management, storage and vMotion networks are set to the deployment defaults. See Supported networking changes in the [NetApp HCI Documentation Center](#) for more information.

e. Click **Continue**.

8. On the **ESXi Credentials** page, enter an ESXi root password for the compute node or nodes you are adding.

You should use the same password that was created during the initial NetApp HCI deployment.

9. Click **Continue**.

10. If you created a new vSphere datacenter cluster, on the **Network Topology** page, select a network topology to match the new compute nodes you are adding.



You can select the two-cable option only if your compute nodes are using the two-cable topology and the existing NetApp HCI deployment is configured with VLAN IDs.

11. On the **Available Inventory** page, select the nodes you want to add to the existing NetApp HCI installation.



For some compute nodes, you might need to enable EV at the highest level that your vCenter version supports before you can add them to your installation. You need to use the vSphere client to enable EVC for these compute nodes. After you enable it, refresh the Inventory page and try adding the compute nodes again.

12. Click **Continue**.

13. **Optional:** If you created a new vSphere datacenter cluster, on the **Network Settings** page, import network information from an existing NetApp HCI deployment by selecting the **Copy Setting from an Existing Cluster** checkbox.

This populates the default gateway and subnet information for each network.

14. On the **Network Settings** page, some of the network information has been detected from the initial deployment. Each new compute node is listed by serial number, and you need to assign new network information to it. For each new compute node, complete the following steps:
 - a. **Hostname:** If NetApp HCI detected a naming prefix, copy it from the **Detected Naming Prefix** field, and insert it as the prefix for the new hostname.
 - b. **Management IP Address:** Enter a management IP address for the new compute node that is within the management network subnet.
 - c. **vMotion IP Address:** Enter a vMotion IP address for the new compute node that is within the vMotion network subnet.
 - d. **iSCSI A - IP Address:** Enter an IP address for the first iSCSI port of the compute node that is in the iSCSI network subnet.
 - e. **iSCSI B - IP Address:** Enter an IP address for the second iSCSI port of the compute node that is in the iSCSI network subnet
 - f. Click **Continue**.
15. On the **Review** page in the Network Settings section, new nodes are shown in the bold text. To make changes in any section, do the following:
 - a. Click **Edit** for that section.
 - b. After you finish, click **Continue** on any subsequent pages to return to the **Review** page.
16. **Optional:** If you do not want to send cluster statistics and support information to NetApp hosted SolidFire Active IQ servers, clear the final checkbox.

This disables real-time health and diagnostic monitoring for NetApp HCI. Disabling this feature removes the ability for NetApp to proactively support and monitor NetApp HCI to detect and resolve issues before production is impacted.

17. Click **Add Nodes**.

You can monitor the progress while NetApp HCI adds and configures the resources.

18. **Optional:** Verify that any new compute nodes are visible in the VMware vSphere Web Client.

Find more information

- [NetApp HCI Documentation Center](#)
- [NetApp HCI Resources Page](#)
- [NetApp HCI Compute and Storage Nodes Installation and Setup Instructions](#)
- [VMware Knowledge Base: Enhanced vMotion Compatibility \(EVC\) processor support](#)

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.