



Deploy VMware Virtual Infrastructure on NetApp HCI with NDE (Automated Deployment)

NetApp Solutions

Kevin Hoke
May 19, 2021

Table of Contents

- Deploy VMware Virtual Infrastructure on NetApp HCI with NDE (Automated Deployment) 1
- NDE Deployment Prerequisites 1
- NDE Execution 1

Deploy VMware Virtual Infrastructure on NetApp HCI with NDE (Automated Deployment)

NDE Deployment Prerequisites

Consult the [NetApp HCI Prerequisites Checklist](#) to see the requirements and recommendations for NetApp HCI before you begin deployment.

1. Network and switch requirements and configuration
2. Prepare required VLAN IDs
3. Switch configuration
4. IP Address Requirements for NetApp HCI and VMware
5. DNS and time-keeping requirements
6. Final preparations

NDE Execution

Before you execute the NDE, you must complete the rack and stack of all components, configuration of the network switches, and verification of all prerequisites. You can execute NDE by connecting to the management address of a single storage node if you plan to allow NDE to automatically configure all addresses.

NDE performs the following tasks to bring an HCI system online:

1. Installs the storage node (NetApp Element software) on a minimum of two storage nodes.
2. Installs the VMware hypervisor on a minimum of two compute nodes.
3. Installs VMware vCenter to manage the entire NetApp HCI stack.
4. Installs and configures the NetApp storage management node (mNode) and NetApp Monitoring Agent.



This validation uses NDE to automatically configure all addresses. You can also set up DHCP in your environment or manually assign IP addresses for each storage node and compute node. These steps are not covered in this guide.

As mentioned previously, this validation uses a two-cable configuration for compute nodes.

Detailed steps for the NDE are not covered in this document.

For step-by-step guidance on completing the deployment of the base NetApp HCI platform, see the [Deployment guide](#).

5. After NDE has finished, login to the vCenter and create a Distributed Port Group `NetApp HCI VDS 01-NFS_Network` for the NFS network to be used by ONTAP Select and the application.

Next: [Configure NetApp H615c \(Manual Deployment\)](#)

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.