



Base infrastructure configuration

FlexPod

NetApp
June 03, 2021

Table of Contents

- Base infrastructure configuration 1
- Network connectivity 1
- Storage connectivity 1
- Host software 1

Base infrastructure configuration

Network connectivity

The following network connections must be in place before you configure the infrastructure:

- Link aggregation that uses port channels and virtual port channels (vPCs) is used throughout, enabling the design for higher bandwidth and high availability:
 - vPC is used between the Cisco FI and Cisco Nexus switches.
 - Each server has virtual network interface cards (vNICs) with redundant connectivity to the Unified Fabric. NIC failover is used between FIs for redundancy.
 - Each server has virtual host bus adapters (vHBAs) with redundant connectivity to the Unified Fabric.
- The Cisco UCS FI is configured in end- host mode as recommended, providing dynamic pinning of vNICs to uplink switches.

Storage connectivity

The following storage connections must be in place before you configure the infrastructure:

- Storage port interface groups (ifgroups, vPC)
- 10Gb link to switch N9K-A
- 10Gb link to switch N9K-B
- In- band management (active-passive bond):
 - 1Gb link to management switch N9K-A
 - 1Gb link to management switch N9K-B
- 32Gb FC end-to-end connectivity through Cisco MDS switches; single initiator zoning configured
- FC SAN boot to fully achieve stateless computing; servers are booted from LUNs in the boot volume that is hosted on the AFF storage cluster
- All MEDITECH workloads are hosted on FC LUNs, which are spread across the storage controller nodes

Host software

The following software must be installed:

- ESXi installed on the Cisco UCS blades
- VMware vCenter installed and configured (with all the hosts registered in vCenter)
- VSC installed and registered in VMware vCenter
- NetApp cluster configured

[Next: Cisco UCS Blade Server and Switch Configuration.](#)

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.