

Install hardware

Cluster and storage switches

NetApp April 05, 2024

This PDF was generated from https://docs.netapp.com/us-en/ontap-systems-switches/switch-cisco-92300/setup-worksheet-92300yc.html on April 05, 2024. Always check docs.netapp.com for the latest.

Table of Contents

ln	stall hardware	1
	Complete Cisco Nexus 92300YC cabling worksheet.	1
	Configure the Cisco Nexus 92300YC switch	7
	Review cabling and configuration considerations	11

Install hardware

Complete Cisco Nexus 92300YC cabling worksheet

If you want to document the supported platforms, download a PDF of this page and complete the cabling worksheet.

The sample cabling worksheet provides examples of recommended port assignments from the switches to the controllers. The blank worksheet provides a template that you can use in setting up your cluster.

Sample cabling worksheet

The sample port definition on each pair of switches is as follows:

Cluster switch A		Cluster switch B	
Switch port	Node and port usage	Switch port	Node and port usage
1	10/25 GbE node	1	10/25 GbE node
2	10/25 GbE node	2	10/25 GbE node
3	10/25 GbE node	3	10/25 GbE node
4	10/25 GbE node	4	10/25 GbE node
5	10/25 GbE node	5	10/25 GbE node
6	10/25 GbE node	6	10/25 GbE node
7	10/25 GbE node	7	10/25 GbE node
8	10/25 GbE node	8	10/25 GbE node
9	10/25 GbE node	9	10/25 GbE node
10	10/25 GbE node	10	10/25 GbE node
11	10/25 GbE node	11	10/25 GbE node
12	10/25 GbE node	12	10/25 GbE node
13	10/25 GbE node	13	10/25 GbE node
14	10/25 GbE node	14	10/25 GbE node

Cluster switch A		Cluster switch B	
15	10/25 GbE node	15	10/25 GbE node
16	10/25 GbE node	16	10/25 GbE node
17	10/25 GbE node	17	10/25 GbE node
18	10/25 GbE node	18	10/25 GbE node
19	10/25 GbE node	19	10/25 GbE node
20	10/25 GbE node	20	10/25 GbE node
21	10/25 GbE node	21	10/25 GbE node
22	10/25 GbE node	22	10/25 GbE node
23	10/25 GbE node	23	10/25 GbE node
24	10/25 GbE node	24	10/25 GbE node
25	10/25 GbE node	25	10/25 GbE node
26	10/25 GbE node	26	10/25 GbE node
27	10/25 GbE node	27	10/25 GbE node
28	10/25 GbE node	28	10/25 GbE node
29	10/25 GbE node	29	10/25 GbE node
30	10/25 GbE node	30	10/25 GbE node
31	10/25 GbE node	31	10/25 GbE node
32	10/25 GbE node	32	10/25 GbE node
33	10/25 GbE node	33	10/25 GbE node
34	10/25 GbE node	34	10/25 GbE node
35	10/25 GbE node	35	10/25 GbE node
36	10/25 GbE node	36	10/25 GbE node

Cluster switch A		Cluster switch B	
37	10/25 GbE node	37	10/25 GbE node
38	10/25 GbE node	38	10/25 GbE node
39	10/25 GbE node	39	10/25 GbE node
40	10/25 GbE node	40	10/25 GbE node
41	10/25 GbE node	41	10/25 GbE node
42	10/25 GbE node	42	10/25 GbE node
43	10/25 GbE node	43	10/25 GbE node
44	10/25 GbE node	44	10/25 GbE node
45	10/25 GbE node	45	10/25 GbE node
46	10/25 GbE node	46	10/25 GbE node
47	10/25 GbE node	47	10/25 GbE node
48	10/25 GbE node	48	10/25 GbE node
49	40/100 GbE node	49	40/100 GbE node
50	40/100 GbE node	50	40/100 GbE node
51	40/100 GbE node	51	40/100 GbE node
52	40/100 GbE node	52	40/100 GbE node
53	40/100 GbE node	53	40/100 GbE node
54	40/100 GbE node	54	40/100 GbE node
55	40/100 GbE node	55	40/100 GbE node
56	40/100 GbE node	56	40/100 GbE node
57	40/100 GbE node	57	40/100 GbE node
58	40/100 GbE node	58	40/100 GbE node

Cluster switch A		Cluster switch B	
59	40/100 GbE node	59	40/100 GbE node
60	40/100 GbE node	60	40/100 GbE node
61	40/100 GbE node	61	40/100 GbE node
62	40/100 GbE node	62	40/100 GbE node
63	40/100 GbE node	63	40/100 GbE node
64	40/100 GbE node	64	40/100 GbE node
65	100 GbE ISL to switch B port 65	65	100 GbE ISL to switch A port 65
66	100 GbE ISL to switch B port 66	66	100 GbE ISL to switch A port 65

Blank cabling worksheet

You can use the blank cabling worksheet to document the platforms that are supported as nodes in a cluster. The *Supported Cluster Connections* section of the Hardware Universe defines the cluster ports used by the platform.

Cluster switch A		Cluster switch B	
Switch port	Node/port usage	Switch port	Node/port usage
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	

Cluster switch A	Cluster switch B	
10	10	
11	11	
12	12	
13	13	
14	14	
15	15	
16	16	
17	17	
18	18	
19	19	
20	20	
21	21	
22	22	
23	23	
24	24	
25	25	
26	26	
27	27	
28	28	
29	29	
30	30	
31	31	

	Cluster switch B
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53

Cluster switch A		Cluster switch B	
54		54	
55		55	
56		56	
57		57	
58		58	
59		59	
60		60	
61		61	
62		62	
63		63	
64		64	
65	ISL to switch B port 65	65	ISL to switch A port 65
66	ISL to switch B port 66	66	ISL to switch A port 66

Configure the Cisco Nexus 92300YC switch

Follow this procedure to set up and configure the Cisco Nexus 92300YC switch.

Steps

- 1. Connect the serial port to a host or serial port.
- 2. Connect the management port (on the non-port side of the switch) to the same network where your SFTP server is located.
- 3. At the console, set the host side serial settings:
 - 9600 baud
 - 8 data bits
 - 1 stop bit
 - o parity: none
 - flow control: none
- 4. When booting for the first time or rebooting after erasing the running configuration, the Nexus 92300YC switch loops in a boot cycle. Interrupt this cycle by typing **yes** to abort Power on Auto Provisioning.

The System Admin Account setup is displayed.

Show example

```
$ VDC-1 %$ %POAP-2-POAP_INFO: - Abort Power On Auto Provisioning [yes - continue with normal setup, skip - bypass password and basic configuration, no - continue with Power On Auto Provisioning] (yes/skip/no)[no]: y
Disabling POAP......Disabling POAP
2019 Apr 10 00:36:17 switch %$ VDC-1 %$ poap: Rolling back, please wait... (This may take 5-15 minutes)

---- System Admin Account Setup ----
Do you want to enforce secure password standard (yes/no) [y]:
```

5. Type **y** to enforce secure password standard:

```
Do you want to enforce secure password standard (yes/no) [y]: {f y}
```

6. Enter and confirm the password for user admin:

```
Enter the password for "admin":
Confirm the password for "admin":
```

7. Type **yes** to enter the Basic System Configuration dialog.

Show example

This setup utility will guide you through the basic configuration of the system. Setup configures only enough connectivity for management of the system.

Please register Cisco Nexus9000 Family devices promptly with your supplier. Failure to register may affect response times for initial service calls. Nexus9000 devices must be registered to receive entitled support services.

Press Enter at anytime to skip a dialog. Use ctrl-c at anytime to skip the remaining dialogs.

Would you like to enter the basic configuration dialog (yes/no):

8. Create another login account:

```
Create another login account (yes/no) [n]:
```

9. Configure read-only and read-write SNMP community strings:

```
Configure read-only SNMP community string (yes/no) [n]:

Configure read-write SNMP community string (yes/no) [n]:
```

10. Configure the cluster switch name:

```
Enter the switch name : cs2
```

11. Configure the out-of-band management interface:

```
Continue with Out-of-band (mgmt0) management configuration? (yes/no)
[y]: y

Mgmt0 IPv4 address: 172.22.133.216

Mgmt0 IPv4 netmask: 255.255.224.0

Configure the default gateway? (yes/no) [y]: y

IPv4 address of the default gateway : 172.22.128.1
```

12. Configure advanced IP options:

```
Configure advanced IP options? (yes/no) [n]: n
```

13. Configure Telnet services:

```
Enable the telnet service? (yes/no) [n]: n
```

14. Configure SSH services and SSH keys:

```
Enable the ssh service? (yes/no) [y]: y

Type of ssh key you would like to generate (dsa/rsa) [rsa]: rsa

Number of rsa key bits <1024-2048> [1024]: 2048
```

15. Configure other settings:

```
Configure the ntp server? (yes/no) [n]: n

Configure default interface layer (L3/L2) [L2]: L2

Configure default switchport interface state (shut/noshut) [noshut]: noshut

Configure CoPP system profile (strict/moderate/lenient/dense)
[strict]: strict
```

16. Confirm switch information and save the configuration:

```
Would you like to edit the configuration? (yes/no) [n]: n

Use this configuration and save it? (yes/no) [y]: y

[] 100%

Copy complete, now saving to disk (please wait)...

Copy complete.
```

What's next?

Prepare to install NX-OS software and RCF.

Review cabling and configuration considerations

Before configuring your Cisco 92300YC switch, review the following considerations.

Support for NVIDIA CX6, CX6-DX, and CX7 Ethernet ports

If connecting a switch port to an ONTAP controller using NVIDIA ConnectX-6 (CX6), ConnectX-6 Dx (CX6-DX), or ConnectX-7 (CX7) NIC ports, you must hard-code the switch port speed.

```
(cs1) (config) # interface Ethernet1/19
For 100GbE speed:
(cs1) (config-if) # speed 100000
For 40GbE speed:
(cs1) (config-if) # speed 40000
(cs1) (config-if) # no negotiate auto
(cs1) (config-if) # exit
(cs1) (config) # exit
Save the changes:
(cs1) # copy running-config startup-config
```

See the Hardware Universe for more information on switch ports.

Copyright information

Copyright © 2024 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.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

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.