



Installing NX-OS software and RCFs on Cisco® Nexus 5010, 5020, and 5596 cluster switches

Installing the NX-OS software and reference configuration files (RCFs) on Cisco Nexus 5010, 5020, 5596UP, and 5596T cluster switches is a nondisruptive procedure (NDU).

Before you begin

- The cluster must be a fully functioning cluster.
- You might want to check or set your desired boot variables in the RCF to reflect the desired boot images if you are installing only the NX-OS software and keeping your current RCF version.
You might need to change the boot variables to reflect the current boot images. You must perform this operation before reapplying the RCF so that the correct version will be instantiated on future reboots.
- The ONTAP, NX-OS, and RCF versions that are supported in this procedure are listed in the switch compatibility matrix on the “Cisco Ethernet Switches” page.
There can be command dependencies between command syntax in the RCF and NX-OS versions.
[Cisco Ethernet Switch](#)
- You can see the appropriate software and upgrade guides available on the Cisco web site for complete documentation on the Cisco switch upgrade and downgrade procedures.
[Install and Upgrade Guides](#)

About this task

The procedure in the “Installing the NX-OS software” section includes steps to install the RCF. If you only need to update or reapply the RCF on your Cisco cluster switch, then you should use the procedure provided in the “Installing the reference configuration file” section.

The examples in both procedures use Nexus 5596UP or 5596T switches, and use the following switch and node nomenclature:

- The names of the two Cisco switches are cs1 and cs2.
- clus1 and clus2 are the cluster logical interfaces (LIFs) that are typically associated with the switches cs1 and cs2, respectively.
- The SVMs are node1 and node2.
- The `cluster::*>` prompt indicates the name of the cluster.
- The cluster ports on each node are named e1a and e2a and are connected to switches cs1 and cs2, respectively.
The *Hardware Universe* lists the current cluster ports supported on your platform.
- Cisco cluster switches use the following inter-switch link (ISL) ports:
 - Nexus 5596UP or 5596T: ports 41 through 48
 - Nexus 5010: ports 13 through 20
 - Nexus 5020: ports 33 through 40
- Cisco cluster switches support the following node connections:

- Nexus 5596UP or 5596T: ports 1/1 through 1/40
- Nexus 5010: ports 1/1 through e1/12 (and ports 2/1 through 2/6 if an expansion module is installed)
- Nexus 5020: ports 1/1 through 1/32

Related tasks

[Installing the NX-OS software](#) on page 2

[Installing the reference configuration file](#) on page 8

Installing the NX-OS software

The NX-OS software installation includes steps for installing the reference configuration file (RCF).

About this task

The procedure begins with preparing the cluster interconnect connections to Cisco switch cs2.

Steps

1. Change the privilege level to advanced, entering **y** when prompted to continue: **set -privilege advanced**
The advanced prompt (***>**) appears.
2. Migrate clus2 to port e1a on the console of each node: **network interface migrate**

Example

The following command migrates clus2 to port e1a on node1 and node2:

```
cluster::*> network interface migrate -vserver node1 -lif clus2 -source-node node1 -dest-node node1 -dest-port e1a
```

```
cluster::*> network interface migrate -vserver node2 -lif clus2 -source-node node1 -dest-node node2 -dest-port e1a
```

3. Verify that the migration took place on the console of each node: **network interface show**

Example

The following example shows that clus2 was migrated to port e1a on both nodes:

```
cluster::*> network interface show -role cluster
```

Vserver	Logical Interface	Status Admin/Open	Network Address/Mask	Current Node	Current Port	Is Home
node1	clus1	up/up	10.10.10.1/16	node1	e1a	true
	clus2	up/up	10.10.10.2/16	node1	e1a	false
node2	clus1	up/up	10.10.10.1/16	node2	e1a	true
	clus2	up/up	10.10.10.2/16	node2	e1a	false

4. Shut down cluster port e2a on both nodes: **network port modify**

Example

The following command shuts down port e2a on both nodes:

```
cluster::*> network port modify -node node1 -port e2a -up-admin false
cluster::*> network port modify -node node2 -port e2a -up-admin false
```

5. Verify the status of cluster port e2a: `network port show`

Example

The following example shows that cluster port e2a was shut down on node1 and node2:

```
cluster::*> network port show -role cluster
```

Node	Port	Role	Link	MTU	Auto-Negot Admin/Oper	Duplex Admin/Oper	Speed (Mbps) Admin/Oper
node1							
	e1a	cluster	up	9000	true/true	full/full	auto/10000
	e2a	cluster	down	9000	true/true	full/full	auto/10000
node2							
	e1a	cluster	up	9000	true/true	full/full	auto/10000
	e2a	cluster	down	9000	true/true	full/full	auto/10000

6. Shut down the ISL ports on the other Cisco switch, cs1.

Example

The following example shuts down ISL ports 41 through 48 on cs1 of a Nexus 5596UP or Nexus 5596T switch. The “About this task” section contains the correct ISL ports for your switch model.

```
cs1# configure
cs1(config)# interface ethernet 1/41-48
cs1(config-if-range)# shutdown
cs1(config-if-range)# exit
cs1(config)# exit
cs1(config)#
```

Note: For Nexus 5010 switches, you need to shut down ISL ports 1/13-20. For Nexus 5020 switches, you need to shut down ISL ports 1/33-40.

7. In switch cs2, copy the kickstart and system images to the switch bootflash using a transfer protocol, such as FTP, TFTP, SFTP, or SCP.

Example

The following command uses SFTP to copy the kickstart image to the switch bootflash on a Nexus 5596UP or Nexus 5596T switch:

```
cs2# copy sftp: bootflash: vrf management
Enter source filename: /tftpboot/n5000-uk9-kickstart.5.2.1.N1.8b.bin
Enter hostname for the sftp server: 10.55.27.160
Enter username: root

The authenticity of host '10.55.27.160 (10.55.27.160)' can't be established.
RSA key fingerprint is 31:a0:eg2:9d:c4:5a:1b:6c:74:27:6b:40:01:g5:48:5d.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '10.55.27.160' (RSA) to the list of known hosts.
root@10.55.27.160's password:
Connected to 10.55.27.160.
```

```
sftp> get /tftpboot/n5000-uk9-kickstart.5.2.1.N1.8b.bin /bootflash/n5000-uk9-kickstart.5.2.1.N1.8b.bin
Fetching /tftpboot/n5000-uk9-kickstart.5.2.1.N1.8b.bin to /bootflash/n5000-uk9-kickstart.5.2.1.N1.8b.bin
/tftpboot/n5000-uk9-kickstart.5.2.1.N1.8b.bin 100% 30MB 3.4MB/s 00:09
sftp> exit
```

The following command uses SFTP to copy the system image to the switch bootflash on a Nexus 5596UP or Nexus 5596T switch:

```
cs2# copy sftp: bootflash: vrf management
Enter source filename: /tftpboot/n5000-uk9.5.2.1.N1.8b.bin
Enter hostname for the sftp server: 10.55.27.160
Enter username: root

root@10.55.27.160's password:
Connected to 10.55.27.160.
sftp> get /tftpboot/n5000-uk9.5.2.1.N1.8b.bin /bootflash/n5000-uk9.5.2.1.N1.8b.bin
Fetching /tftpboot/n5000-uk9.5.2.1.N1.8b.bin to /bootflash/n5000-uk9.5.2.1.N1.8b.bin
/tftpboot/n5000-uk9.5.2.1.N1.8b.bin 100% 165MB 3.2MB/s 00:52
sftp> exit
```

8. Verify that the bootflash has enough space for the new image.

- If necessary, create space by removing any unnecessary files: **delete bootflash:filename**
The Cisco documentation contains more information about this command.
- You can look at the size of the image to verify that you have enough space for the new image that is about to be downloaded: **dir bootflash:**
If the desired image is already on the switch, then go to the next step.

Example

The following example shows the content of the bootflash file system, the amount of space used for the image, and the remaining space.

```
cs2# dir bootflash:
 31646720 Sep 16 18:18:51 2012 n5000-uk9-kickstart.5.2.1.N1.8b.bin
173087826 Sep 16 19:00:17 2012 n5000-uk9.5.2.1.N1.8b.bin
.
.
.
Usage for bootflash://sup-local1712589312 bytes used
936034304 bytes free
1648623616 bytes total
```

9. Verify that there are no incompatibility issues with the new image: **show incompatibility**

Example

The following example shows that there are no compatibility issues with the new n5000-uk9.5.2.1.N1.1.bin image:

```
cs2# show incompatibility system bootflash:/n5000-uk9.5.2.1.N1.8b.bin
No incompatible configurations
```

10. Install the kickstart and system images that you copied to the bootflash, responding **y** when prompted: **install all**
This operation reboots the switch with the image that was just installed.

Example

The following command installs the kickstart and system images on switch cs2:

```
cs2# install all kickstart bootflash:n5000-uk9-kickstart.5.2.1.N1.8b.bin system
bootflash:n5000-uk9.5.2.1.N1.8b.bin
```

11. Verify that the kickstart and image files were installed correctly: **show version**

It might take four to five minutes for the switch to reboot.

Example

The following example shows that the correct kickstart and image files were installed on switch cs2:

```
cs2# show version
Software
  BIOS:      version 3.6.0
  loader:    version N/A
  kickstart: version 5.2(1)N1(8b)
  system:    version 5.2(1)N1(8b)
  power-seq: Module 1: version v5.0
  uC:        version v1.0.0.2
  SFP uC:    Module 1: v1.0.0.0
  BIOS compile time:      05/09/2012
  kickstart image file is: bootflash:///n5000-uk9-kickstart.5.2.1.N1.8b.bin
  kickstart compile time: 7/12/2012 19:00:00 [07/12/2012 19:08:13]
  system image file is:   bootflash:///n5000-uk9.5.2.1.N1.8b.bin
  system compile time:    7/12/2012 19:00:00 [07/12/2012 20:23:16]
```

12. Verify that the bootflash has enough space for the new RCF.

- If necessary, create space by removing any unnecessary files: **delete bootflash:filename**
The Cisco documentation contains more information about this command.
- You can look at the size of the RCF to verify that you have enough space for the new RCF that is about to be downloaded: **dir bootflash:**
If the desired RCF is already on the switch, then go to step [14](#) on page 6.

Example

The following example shows the content of the bootflash file system, the amount of space used for the RCF, and the remaining space.

```
cs2# dir bootflash:
   0   Nov 13 01:14:17 2012 20121113_011417_poap_3498_init.log
  248   Apr 10 02:26:16 2012 convert_pfm1.log
  581   Apr 10 02:26:16 2012 fcoe_mgr_cnv.log
 4096   Nov 13 01:12:25 2012 lost+found/
 5027   Feb 28 18:50:37 2013 mts.log
25140224 Mar 23 01:17:56 2012 n5000-uk9-kickstart.5.0.3.N2.1.bin
31646720 Jul 17 06:19:54 2012 n5000-uk9-kickstart.5.2.1.N1.8b.bin
147256572 Mar 23 01:18:34 2012 n5000-uk9.5.0.3.N2.1.bin
172662417 Apr 10 01:41:08 2012 n5000-uk9.5.1.3.N2.1.bin
173087826 Jul 17 02:19:16 2012 n5000-uk9.5.2.1.N1.1.bin
 3779   Apr 10 02:25:38 2012 stp.log.1
 4096   Jan 01 01:21:25 2009 vdc_2/
 4096   Jan 01 01:21:25 2009 vdc_3/
 4096   Jan 01 01:21:25 2009 vdc_4/
  348   Apr 10 02:26:16 2012 vfc_cnv.log

Usage for bootflash://sup-local
667828224 bytes used
980795392 bytes free
1648623616 bytes total
```

13. Copy the RCF to the switch bootflash using a transfer protocol such as FTP, TFTP, SFTP, or SCP.

Example

The following command copies the RCF to the switch bootflash using TFTP on a Nexus 5596UP or Nexus 5596T switch:

```
cs2# copy tftp: bootflash: vrf management
Enter source filename: NX5596T_RCF_v1.3.txt
Enter hostname for the tftp server: 10.10.10.120
Trying to connect to tftp server.....
Connection to Server Established.

TFTP get operation was successful
Copy complete, now saving to disk (please wait)...
```

14. Apply the previously downloaded RCF to the bootflash: `copy bootflash`

Example

The following command installs the NX5596T_RCF_v1.3.txt RCF on a Nexus 5596T switch:

```
cs2# copy bootflash:NX5596_RCF_v1.3.txt running-config
```

15. Verify that the RCF version is the new one, that the node and port settings are correct, and that your site customizations are implemented: `show running-config`

Example

```
cs2# show running-config
```

Your output varies depending on your site configuration. You can check the port settings and then refer to the release notes as a reference for any changes specific to the RCF that you have installed.

16. To save the latest configuration, you need to copy the `running-config` file to the `startup-config` file.

Example

The following example copies the `running-configuration` file to the `startup-configuration` file:

```
cs2# copy running-config startup-config
[#####] 100%
```

17. Bring up the ISL ports on the active switch cs1.

Example

The following command brings up ISL ports 41 through 48 on cs1 of a Nexus 5596UP or Nexus 5596T switch. The “About this task” section contains the correct ISL ports for your switch model.

```
cs1# configure
cs1(config)# interface ethernet 1/41-48
cs1(config-if-range)# no shutdown
cs1(config-if-range)#exit
cs1(config)#exit
cs1#
```

Note: For Nexus 5010 switches, you need to bring up ISL ports 1/13-20. For Nexus 5020 switches, you need to bring up ISL ports 1/33-40.

18. Verify that the ISLs are operational: **show port-channel summary**

There should be a “(P)” after the Ethernet ports in the “Member Ports” column.

Example

The following example shows that the port-channel members 41 through 48 are up (P) on switch cs2:

```
cs2# show port-channel summary
Flags:  D - Down          P - Up in port-channel (members)
        I - Individual    H - Hot-standby (LACP only)
        s - Suspended     r - Module-removed
        S - Switched      R - Routed
        U - Up (port-channel)
        M - Not in use. Min-links not met

-----
Group  Port-      Type      Protocol  Member Ports
Channel
-----
1      Pol(SU)    Eth       LACP      Eth1/41(P) Eth1/42(P) Eth1/43(P)
              Eth1/44(P) Eth1/45(P) Eth1/46(P)
              Eth1/47(P) Eth1/48(P)
```

19. Bring up cluster port e2a on both nodes: **network port modify**

Example

The following command brings up cluster port e2a on node1 and node2:

```
cluster::*> network port modify -node node1 -port e2a -up-admin true
cluster::*> network port modify -node node2 -port e2a -up-admin true
```

20. Verify that cluster port e2a is up on both nodes: **network port show -role cluster**

Example

The following example shows that the port e2a is up on both node1 and node2:

```
cluster::*> network port show -role cluster

Node  Port  Role      Link MTU      Auto-Negot  Duplex      Speed (Mbps)
-----  ---  ---      ---  ---      ---  ---      ---
node1
  e1a   cluster  up   9000  true/true  full/full  auto/10000
  e2a   cluster  up   9000  true/true  full/full  auto/10000
node2
  e1a   cluster  up   9000  true/true  full/full  auto/10000
  e2a   cluster  up   9000  true/true  full/full  auto/10000
```

21. On both nodes, revert clus2 that is associated with port e2a: **network interface revert**

The LIF might revert automatically, depending on your version of ONTAP.

Example

```
cluster::*> network interface revert -vserver node1 -lif clus2
cluster::*> network interface revert -vserver node2 -lif clus2
```

22. Verify that the LIF is now home on both nodes: **network interface show -role cluster**

Example

The LIF is home if the ports in the “Current Port” column have a status of `true` in the “Is Home” column, as shown in the following example:

```
cluster::*> network interface show -role cluster
```

Vserver	Logical Interface	Status Admin/Oper	Network Address/Mask	Current Node	Current Port	Is Home
node1	clus1	up/up	10.10.10.1/24	node1	e1a	true
	clus2	up/up	10.10.10.2/24	node1	e2a	true
node2	clus1	up/up	10.10.10.1/24	node2	e1a	true
	clus2	up/up	10.10.10.2/24	node2	e2a	true

23. Verify the health and eligibility status of the nodes in the cluster: `cluster show`

Example

The following example shows that node1 and node2 are healthy and eligible:

```
cluster::*> cluster show
```

Node	Health	Eligibility	Epsilon
node1	true	true	false
node2	true	true	false

24. Change the privilege level back to admin: `set -privilege admin`
25. Repeat step 1 on page 2 through step 24 on page 8 to upgrade the NX-OS software on the other Cisco switch, cs1.

Installing the reference configuration file

You can use “Installing the reference configuration file” (RCF) procedure to upgrade or reapply the RCF on the Cisco cluster switch.

Before you begin

You must have saved the configuration that is currently running on your switch.

Steps

1. Change the privilege level to advanced, entering `y` when prompted to continue: `set -privilege advanced`
The advanced prompt (`*>`) appears.
2. Save your current switch configuration information: `copy running-config startup-config`

Example

The following example shows how to save your current switch configuration to the startup configuration file on the switch cs2:

```
cs2# copy running-config startup-config
[#####] 100%
```

3. Migrate clus2 to port e1a on the console of each node: `network interface migrate`

Example

The following command migrates clus2 to port e1a on node1 and node2:

```
cluster::*> network interface migrate -vserver node1 -lif clus2 -source-node node1 -dest-node node1 -dest-port e1a
```

```
cluster::*> network interface migrate -vserver node2 -lif clus2 -source-node node1 -dest-node node2 -dest-port e1a
```

4. Verify that the migration took place on the console of each node: `network interface show`

Example

The following example shows that clus2 was migrated to port e1a on both nodes:

```
cluster::*> network interface show -role cluster
```

Vserver	Logical Interface	Status Admin/Open	Network Address/Mask	Current Node	Current Port	Is Home
node1	clus1	up/up	10.10.10.1/16	node1	e1a	true
	clus2	up/up	10.10.10.2/16	node1	e1a	false
node2	clus1	up/up	10.10.10.1/16	node2	e1a	true
	clus2	up/up	10.10.10.2/16	node2	e1a	false

5. Shut down the cluster port e2a on both nodes: `network port modify`

Example

The following command shuts down port e2a on both nodes:

```
cluster::*> network port modify -node node1 -port e2a -up-admin false
cluster::*> network port modify -node node2 -port e2a -up-admin false
```

6. Verify the status of cluster port e2a: `network port show`

Example

The following example shows that cluster port e2a was shut down on node1 and node2:

```
cluster::*> network port show -role cluster
```

Node	Port	Role	Link	MTU	Auto-Negot Admin/Oper	Duplex Admin/Oper	Speed (Mbps) Admin/Oper
node1	e1a	cluster	up	9000	true/true	full/full	auto/10000
	e2a	cluster	down	9000	true/true	full/full	auto/10000
node2	e1a	cluster	up	9000	true/true	full/full	auto/10000
	e2a	cluster	down	9000	true/true	full/full	auto/10000

7. Shut down the ISL ports on the other Cisco switch, cs1.

Example

The following example shuts down ISL ports 41 through 48 on cs1 of a Nexus 5596UP or Nexus 5596T switch. The “About this task” section contains the correct ISL ports for your switch model.

```
cs1# configure
cs1(config)# interface ethernet 1/41-48
cs1(config-if-range)# shutdown
cs1(config-if-range)# exit
cs1(config)# exit
cs1(config)#
```

Note: For Nexus 5010 switches, you need to shut down ISL ports 1/13-20. For Nexus 5020 switches, you need to shut down ISL ports 1/33-40.

8. Before applying the RCF, use the `no channel-group` command to temporarily disable the port channel to avoid syntax errors.

The RCF contains commands to create a port channel that cannot be executed if a port channel is already active.

Example

The following example shows ISL ports 41 through 48 on cs1 of a Nexus 5596UP or 5596T switch and the `no channel-group` command removes the configuration from the interface:

```
cs2 # configure
cs2(config)# interface ethernet 1/41-48
cs2(config-if-range)#no channel-group
cs2(config-if-range)#exit
cs2(config)#exit
cs2#
```

Note: For Nexus 5010 switches, you need to shut down ISL ports 1/13-20. For Nexus 5020 switches, you need to shut down ISL ports 1/33-40.

9. Verify that the bootflash has enough space for the new RCF.
 - If necessary, create space by removing any unnecessary files: `delete bootflash:filename`
The Cisco documentation contains more information about this command.
 - You can look at the size of the RCF to verify that you have enough space for the new RCF that is about to be downloaded: `dir bootflash:`
If the desired RCF is already on the switch, then go to step // on page 11.

Example

The following example shows the content of the bootflash file system, the amount of space used for the RCF, and the remaining space.

```
cs2# dir bootflash:
   0      Nov 13 01:14:17 2012 20121113_011417_poap_3498_init.log
  248     Apr 10 02:26:16 2012 convert_pfm1.log
  581     Apr 10 02:26:16 2012 fcoe_mgr_cnv.log
 4096    Nov 13 01:12:25 2012 lost+found/
 5027    Feb 28 18:50:37 2013 mts.log
25140224 Mar 23 01:17:56 2012 n5000-uk9-kickstart.5.0.3.N2.1.bin
31646720 Jul 17 06:19:54 2012 n5000-uk9-kickstart.5.2.1.N1.8b.bin
147256572 Mar 23 01:18:34 2012 n5000-uk9.5.0.3.N2.1.bin
172662417 Apr 10 01:41:08 2012 n5000-uk9.5.1.3.N2.1.bin
173087826 Jul 17 02:19:16 2012 n5000-uk9.5.2.1.N1.1.bin
   3779   Apr 10 02:25:38 2012 stp.log.1
  4096   Jan 01 01:21:25 2009 vdc_2/
```

```

4096   Jan 01 01:21:25 2009   vdc_3/
4096   Jan 01 01:21:25 2009   vdc_4/
348    Apr 10 02:26:16 2012   vfc_cnv.log

Usage for bootflash://sup-local
667828224 bytes used
980795392 bytes free
1648623616 bytes total

```

- Copy the RCF to the switch bootflash using a transfer protocol such as FTP, TFTP, SFTP, or SCP.

Example

The following command copies the RCF to the switch bootflash using TFTP on a Nexus 5596UP or Nexus 5596T switch:

```

cs2# copy tftp: bootflash: vrf management
Enter source filename: NX5596T_RCF_v1.3.txt
Enter hostname for the tftp server: 10.10.10.120
Trying to connect to tftp server.....
Connection to Server Established.

TFTP get operation was successful
Copy complete, now saving to disk (please wait)...

```

- Apply the previously downloaded RCF to the bootflash: `copy bootflash`

Example

The following command installs the NX5596T_RCF_v1.3.txt RCF on a Nexus 5596T switch

```

cs2# copy bootflash:NX5596_RCF_v1.3.txt running-config

```

- Verify that the RCF version is the new one, that the node and port settings are correct, and that your site customizations are implemented: `show running-config`

Example

```

cs2# show running-config

```

Your output varies depending on your site configuration. You can check the port settings and then refer to the release notes as a reference for any changes specific to the RCF that you have installed.

- Bring up the ISL ports on the active switch cs1.

Example

The following command brings up ISL ports 41 through 48 on cs1 of a Nexus 5596UP or 5596T switch. The “About this task” section contains the correct ISL ports for your switch model.

```

cs1# configure
cs1(config)# interface ethernet 1/41-48
cs1(config-if-range)# no shutdown
cs1(config-if-range)#exit
cs1(config)#exit
cs1#

```

Note: For Nexus 5010 switches, you need to shut down ISL ports 1/13-20. For Nexus 5020 switches, you need to shut down ISL ports 1/33-40.

- Verify that the ISLs are operational: `show port-channel summary`

There should be a “(P)” after the Ethernet ports in the “Member Ports” column.

Example

The following example shows that the port-channel members 41 through 48 are up (P) on switch cs2:

```
cs2# show port-channel summary
Flags:  D - Down          P - Up in port-channel (members)
        I - Individual    H - Hot-standby (LACP only)
        s - Suspended     r - Module-removed
        S - Switched      R - Routed
        U - Up (port-channel)
        M - Not in use. Min-links not met
-----
Group  Port-      Type      Protocol  Member Ports
Channel
-----
1      Pol(SU)    Eth       LACP      Eth1/41(P) Eth1/42(P) Eth1/43(P)
                                     Eth1/44(P) Eth1/45(P) Eth1/46(P)
                                     Eth1/47(P) Eth1/48(P)
```

15. Bring up cluster port e2a on both nodes: **network port modify**

Example

The following command brings up cluster port e2a on node1 and node2:

```
cluster::*> network port modify -node node1 -port e2a -up-admin true
cluster::*> network port modify -node node2 -port e2a -up-admin true
```

16. Verify that cluster port e2a is up on both nodes: **network port show -role cluster**

Example

The following example shows that the port e2a is up on both node1 and node2:

```
cluster::*> network port show -role cluster

Node  Port  Role      Link MTU  Auto-Negot  Duplex      Speed (Mbps)
-----  ---  -----  ---  ---  ---  ---  ---
node1  e1a   cluster  up   9000  true/true  full/full  auto/10000
       e2a   cluster  up   9000  true/true  full/full  auto/10000
node2  e1a   cluster  up   9000  true/true  full/full  auto/10000
       e2a   cluster  up   9000  true/true  full/full  auto/10000
```

17. On both nodes, revert clus2 that is associated with port e2a: **network interface revert**

The LIF might revert automatically, depending on your version of ONTAP.

Example

```
cluster::*> network interface revert -vserver node1 -lif clus2
cluster::*> network interface revert -vserver node2 -lif clus2
```

18. Verify that the LIF is now home on both nodes: **network interface show -role cluster**

Example

The LIF is home if the ports in the “Current Port” column have a status of `true` in the “Is Home” column, as shown in the following example:

```
cluster::*> network interface show -role cluster
```

Vserver	Logical Interface	Status Admin/Oper	Network Address/Mask	Current Node	Current Port	Is Home
node1	clus1	up/up	10.10.10.1/24	node1	e1a	true
	clus2	up/up	10.10.10.2/24	node1	e2a	true
node2	clus1	up/up	10.10.10.1/24	node2	e1a	true
	clus2	up/up	10.10.10.2/24	node2	e2a	true

19. Verify the health and eligibility status of the nodes in the cluster: `cluster show`

Example

The following example shows that node1 and node2 are healthy and eligible:

```
cluster::*> cluster show
```

Node	Health	Eligibility	Epsilon
node1	true	true	false
node2	true	true	false

20. To save the latest configuration, you need to copy the `running-config` file to the `startup-config` file.

Example

The following example copies the `running-configuration` file to the `startup-configuration` file:

```
cs2# copy running-config startup-config  
[#####] 100%
```

21. Change the privilege level back to admin: `set -privilege admin`
22. Repeat step 1 on page 8 through step 21 on page 13 to upgrade the reference configuration file on the other Cisco switch, cs1.

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