



CHAPTER 3

Cisco Nexus 1010 Software Upgrade

This chapter describes how to upgrade Cisco Nexus 1010 product family to the new version and includes the following sections:

- [Prerequisites, page 3-1](#)
- [Upgrading from Software Release 4.2\(1\)SP1\(2\) or Later, page 3-3](#)
- [Upgrading from Software Release 4.0\(4\)SP1\(1\), page 3-5](#)
- [Upgrade Example, page 3-9](#)

Information About In Service Software Upgrade

The Cisco Nexus 1010 upgrade is a hitless in-service software upgrade (ISSU). When you upgrade the software, the operational data is retained without loss of persistent information. The availability of VSBS will not be affected during the upgrade process.

Once the command to upgrade is issued, the whole upgrade procedure is automated. The upgrade process takes time and follows the following sequence:

- First the ISO image components are extracted, verified and synchronized to the standby Cisco Nexus 1010 or Cisco Nexus 1010-X.
- The standby Cisco Nexus 1010 is upgraded first.
- The VSBS on the standby are restarted.
- The upgrade of the active is initiated.
- Once the upgrade of active and standby is complete both will form a HA pair running the upgraded software.

Finally, the ISSU is complete when both Cisco Nexus 1010s form an HA pair with the new software version.

Prerequisites

Before beginning this procedures in this section you must know or do the following:

- You have verified that you have the following product ID (PID), using the [Verifying the CIMC Software Version, page 2-3](#).
 - N1K-C1010 on Cisco Nexus 1010

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- N1K-C1010-X on Cisco Nexus 1010-X



Caution

You cannot install or upgrade to Release 4.2(1)SP1(4) unless your Cisco Nexus 1010 has the product ID (PID) N1K-C1010 or your Cisco Nexus 1010-X has the product ID (PID) N1K-C1010-X.

- You are logged in to the CLI from the CIMC/Serial over LAN port on the rear of the Cisco Nexus 1010 or Cisco Nexus 1010-X.



Note

Do not log in using the management IP for this procedure. This procedure requires you to first upgrade and reload the standby Cisco Nexus 1010 after which the HA pair have incompatible software versions. By logging in using serial over LAN, you prevent the split brain that occurs in this configuration.

- You have already saved a backup copy of your running configuration on an external server.
- You have saved a copy of the new Cisco Nexus 1010 software file from the following Cisco.com software download site to an external server.
www.cisco.com/go/1010download
- You must have Cisco Integrated Management Controller (CIMC) software Version 1.2.1(b) or higher installed. For more information, see the [CIMC And BIOS Information, page 2-2](#).
- Use the “[Verifying the CIMC Software Version](#)” procedure on page 2-3 to verify you have this CIMC version installed. For more information, see the [CIMC Firmware Management on UCS C-Series Servers](#) document.
The upgrade fails if an earlier version of CIMC is installed.
- Use N1010 CIMC GUI to update the CIMC, and BIOS firmware individually using the manual procedure. For more information, see the [CIMC And BIOS Information, page 2-2](#).

Guidelines and Limitations

Follow these guidelines and limitations when upgrading the Cisco Nexus 1010 product family:

- This procedure upgrades both the active and standby Cisco Nexus 1010.
- After reloading the new software version during an upgrade, you must save the new upgrade configuration persistently through reboots and restarts by copying it to the startup configuration. These procedures include a step for this.
- The only way to upgrade the software is by using the **install nexus1010** command
- Boot variables must be set by the system when you use the install command. Never attempt to set the boot variables manually.

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Upgrading from Software Release 4.2(1)SP1(2) or Later

You can use this procedure for the following Cisco Nexus 1010 upgrade while retaining operational data and persistent information.

From software version	To software version
4.2(1)SP1(2)	4.2(1)SP1(4)
4.2(1)SP1(3)	



Note

To upgrade from 4.0(4) SP1(1), see the “[Upgrading from Software Release 4.0\(4\)SP1\(1\)](#)” procedure on [page 3-5](#).



Note

For information about upgrading Cisco Nexus 1000V software on a VSB, see the *Cisco Nexus 1000V Software Upgrade Guide, Release 4.2(1)SV1(5.1)*.

DETAILED STEPS

- Step 1** From the Cisco Nexus 1010 serial over LAN connection, copy any unsaved configuration from the running configuration to startup so that it is preserved after the reload.

copy running-config startup-config

Example:

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

- Step 2** Copy the new software image from the external server to the following directory.

bootflash: \repository

copy scp://user@path/filename bootflash:filename

Example:

```
n1010# copy scp://user@linux-box.cisco.com/home/user/nexus-1010.4.2.1.SP1.1.4.iso
bootflash:repository
Enter vrf (If no input, current vrf 'default' is considered):
user@linux-box.cisco.com's password:
nexus-1010.4.2.1.SP1.4.iso      100% 258234 10.3KB/s 00:15
n1010#
```

- Step 3** Install the new image.

install nexus1010 full_path_to_filename

Example:

```
switch# install nexus1010 bootflash:repository/nexus-1010.4.2.1.sp1.4.iso
```

The following things occur on the switch:

- The new software image is copied to bootflash and the standby Cisco Nexus 1010 is upgraded.
- Bootflash variables are updated with the names of the new system and kickstart images.
- The new image and bootflash variable information is saved in the startup configuration.

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- The active reloads the standby with the new software version.
- The system waits for all VSBs to come up before the standby takes over and reloads the active with the new software version.

Step 4 From the CLI for each module, verify that both modules are in HA mode.

show system redundancy status**Example:**

```
switch# show system redundancy status
Redundancy role
-----
      administrative:  primary
      operational:    primary
Redundancy mode
-----
      administrative:  HA
      operational:    None
This supervisor (sup-1)
-----
      Redundancy state:  Active
      Supervisor state:  Active
      Internal state:   Active with HA standby
Other supervisor (sup-2)
-----
      Redundancy state: standby
      Supervisor state: HA standby
      Internal state:   HA standby
switch#
-----
```

Step 5 Verify that the new software is loaded.

show module

```
switch# show module
Mod  Ports  Module-Type                Model                Status
---  ---
1    0      Cisco Nexus1010 Chassis   Nexus1010            active *
2    0      Cisco Nexus1010 Chassis   Nexus1010            ha-standby

Mod  Sw                Hw
---  ---
1    4.2(1)SP1(3)     0.0
2    4.2(1)SP1(3)     0.0

Mod  MAC-Address(es)                Serial-Num
---  ---
1    00-19-07-6c-5a-a8 to 00-19-07-6c-62-a8  NA
2    00-19-07-6c-5a-a8 to 00-19-07-6c-62-a8  NA

Mod  Server-IP                Server-UUID                Server-Name
---  ---
1    172.23.231.113           NA                          NA
2    172.23.231.113           NA                          NA

* this terminal session
switch#
```

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Step 6 Save the new upgrade configuration persistently through reboots and restarts by copying it to the startup configuration.

copy running-config startup-config

Example:

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

Upgrading from Software Release 4.0(4)SP1(1)

You can use this procedure for the following Cisco Nexus 1010 upgrade while retaining operational data and persistent information.

From software version	To software version
4.0(4)SP1(1)	4.2(1)SP1(4)



Note

To upgrade from 4.2(1)SP1(3) or 4.2(1) SP1(2), see [“Upgrading from Software Release 4.2\(1\)SP1\(2\) or Later” procedure on page 3-3](#).



Note

For information about upgrading Cisco Nexus 1000V software on a VSB, see the *Cisco Nexus 1000V Software Upgrade Guide, Release 4.2(1)SV1(5.1)*.

BEFORE YOU BEGIN

Before beginning this procedure you must know or do the following:

- To keep VSMS available, reload the redundant VSB modules separately as described in this procedure.
- Connect to both primary and secondary Cisco Nexus 1010 using serial over LAN connection.
- To upgrade the Cisco Nexus 1010, the secondary should be active. If the primary Cisco Nexus 1010 is active, then initiate a manual switchover to make the secondary Cisco Nexus 1010 active.
- Save all the configurations on the Cisco Nexus 1010 and on the Cisco Nexus 1000V VSMS before starting the upgrade process.

DETAILED STEPS

Step 1 From the Cisco Nexus 1010 serial over LAN connection, copy any unsaved configuration from the running configuration to startup so that it is preserved after the reload.

copy running-config startup-config

Example:

```
n1010# copy running-config startup-config
[#####] 100%
n1010#
```

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Step 2 Copy the new software image from the external server to the following directory.

bootflash: \repository

copy scp://user@path/filename bootflash:filename

Example:

```
n1010# copy scp://user@linux-box.cisco.com/home/user/nexus-1010.4.2.1.SP1.1.4.iso
bootflash:repository
Enter vrf (If no input, current vrf 'default' is considered):
user@linux-box.cisco.com's password:
nexus-1010.4.2.1.SP1.1.4.iso      100% 258234 10.3KB/s 00:15
n1010#
```

Step 3 Install the new image.

install nexus1010 full_path_to_filename

The following things occur on the switch:

- The new software image is copied to bootflash.
- Bootflash variables are updated with the names of the new system and kickstart images.
- The new image and bootflash variable information is saved in the running configuration.

Example:

```
switch# install nexus1010 bootflash:repository/nexus-1010.4.2.1.SP1.1.4.iso
```

Step 4 Save the new boot parameters in the startup configuration.

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



Caution If you do not copy the running configuration to the startup configuration, the new boot parameters are not saved when you reload the software in [Step 5](#).

Step 5 Reload the software to refresh the software image with the new image file. If the secondary Cisco Nexus 1010 is active, then reload the primary module, which is currently in standby.

reload module 1

Example:

```
n1010# reload module1
his command will reboot standby supervisor module. (y/n)? [n] y
about to reset standby sup
n1010# 2012 Sep 12 00:14:58 switch %$ VDC-1 %$ %PLATFORM-2-PFM_MODULE_RESET: Manual
restart of Module 1 from Command Line Interface
2012 Sep 12 00:15:15 switch %$ VDC-1 %$ %PLATFORM-2-MOD_REMOVE: Module 1 removed (Serial
number T023D70E601)
n1010#
```

Step 6 Wait for module 1 to come up with latest software version. Since module1 has the latest software version, it will still be displayed as active with the latest software version. It will not be displayed as standby due to incompatible software version.

n1010# **show virtual-service-blade summary**

```
-----
Name                Role        State                Nexus1010-Module
-----
vsm                  SECONDARY  VSB POWERED ON      Nexus1010-SECONDARY
```

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- Step 7** From the CLI of module 1, login to the VSM on the Cisco Nexus 1010 with the older software version and then initiate a manual switchover.

```
n1010# login virtual-service-blade vsm
Telnet escape character is '$'.
Trying 127.1.0.18...
Connected to 127.1.0.18.
Escape character is '$'.

Nexus 1000v Switch
vsm login: admin
Password:
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
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such license is available at
http://www.opensource.org/licenses/gpl-2.0.php and
http://www.opensource.org/licenses/lgpl-2.1.php

n1010# show system redundancy status
Redundancy role
-----
      administrative:  secondary
      operational:    secondary

Redundancy mode
-----
      administrative:  HA
      operational:    HA
This supervisor (sup-2)
-----
      Redundancy state:  Active
      Supervisor state:  Active
      Internal state:   Active with HA standby

Other supervisor (sup-1)
-----
      Redundancy state:  Standby
      Supervisor state:  HA standby
      Internal state:   HA standby

n1010#system switchover
```

- Step 8** Enter \$ to return to the Telnet prompt.
- Step 9** Initiate a manual switchover on all the VSMs.
- Step 10** Reload the secondary module. From the CLI of the active with the older software version, enter the following command:

```
n1010#reload module 2
```

The secondary Cisco Nexus 1010 will be reloaded and it will join the primary Cisco Nexus 1010 as standby.

- Step 11** From the CLI for each module, verify that both the Cisco Nexus 1010 are in HA mode.

```
show system redundancy status
```

Example:

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```
switch# show system redundancy status
Redundancy role
-----
      administrative:  primary
      operational:    primary
Redundancy mode
-----
      administrative:  HA
      operational:    None
This supervisor (sup-1)
-----
      Redundancy state:  Active
      Supervisor state:  Active
      Internal state:   Active with HA standby
Other supervisor (sup-2)
-----
      Redundancy state:  standby
      Supervisor state:  HA standby
      Internal state:   HA standby
switch#
-----
```

Step 12 Verify that the new software is loaded.

show module

```
switch# show module
Mod  Ports  Module-Type                Model                Status
---  ---
1    0      Cisco Nexus1010 Chassis   Nexus1010            active *
2    0      Cisco Nexus1010 Chassis   Nexus1010            ha-standby

Mod  Sw                Hw
---  ---
1    4.2(1)SP1(4)     0.0
2    4.2(1)SP1(4)     0.0

Mod  MAC-Address(es)                Serial-Num
---  ---
1    00-19-07-6c-5a-a8 to 00-19-07-6c-62-a8  NA
2    00-19-07-6c-5a-a8 to 00-19-07-6c-62-a8  NA

Mod  Server-IP          Server-UUID                Server-Name
---  ---
1    172.23.231.113     NA                          NA
2    172.23.231.113     NA                          NA
```

```
* this terminal session
switch#
```

Step 13 Save the new upgrade configuration persistently through reboots and restarts by copying it to the startup configuration.

copy running-config startup-config

Example:

```
n1000v# copy running-config startup-config
[#####] 100%
n1000v#
```


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Upgrade Example

The following is an example of upgrade from software version 4.2(1)SP1(3) to 4.2(1)SP1(4).

```

cpa-mgr# install nexus1010 bootflash:repository/nexus-1010.4.2.1.SP1.4.iso
cpa-mgr debug: Using URI: bootflash:/repository/nexus-1010.4.2.1.SP1.4.iso
Installing bootflash:/repository/nexus-1010.4.2.1.SP1.4.iso
.....
Verifying image bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.4.bin for boot variable
"kickstart".
[[#####] 100% -- SUCCESS

Verifying image bootflash:/nexus-1010-mz.4.2.1.SP1.4.bin for boot variable "system".
[[#####] 100% -- SUCCESS

Verifying image type.
[[[[#####] 100% -- SUCCESS

Extracting "system" version from image bootflash:/nexus-1010-mz.4.2.1.SP1.4.bin.
[[#####] 100% -- SUCCESS

Extracting "kickstart" version from image
bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.4.bin.
[#####] 100% -- SUCCESS
.....
Notifying services about system upgrade.                                [#####]
100% -- SUCCESS

.
Compatibility check is done:
Module  bootable          Impact  Install-type  Reason
-----  -
      1         yes  non-disruptive      reset
      2         yes  non-disruptive      reset

Images will be upgraded according to following table:
Module      Image      Running-Version      New-Version      Upg-Required
-----  -
      1      system      4.2(1)SP1(3)      4.2(1)SP1(4)      yes
      1  kickstart      4.2(1)SP1(3)      4.2(1)SP1(4)      yes
      2      system      4.2(1)SP1(3)      4.2(1)SP1(4)      yes
      2  kickstart      4.2(1)SP1(3)      4.2(1)SP1(4)      yes
Module      Running-Version  ESX Version      VSM Compatibility      ESX Compatibility
-----  -
.....

Install is in progress, please wait.

Syncing image bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.4.bin to standby.
[[#####] 100% -- SUCCESS

Syncing image bootflash:/nexus-1010-mz.4.2.1.SP1.4.bin to standby.
#[#####] 100% -- SUCCESS

Setting boot variables.
[# [#####] 100% -- SUCCESS

Performing configuration copy.
[[#####] 100% -- SUCCESS
.....2011 Jul 25 20:12:16 cpa-mgr %PLATFORM-2-MOD_REMOVE: Module 2
removed (Serial number T023D750981)
.....2011 Jul 25
20:14:54 cpa-mgr %PLATFORM-2-MOD_DETECT: Module 2 detected (Serial number :unavailable)
Module-Type Virtual Supervisor Module Model :unavailable

```

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```

.....
Module 2: Waiting for module online.
  -- SUCCESS
.....
.....
Notifying services about the switchover.
[#####] 100% -- SUCCESS

"Switching over onto standby".
.
Broadcast message from root (console) (Mon Jul 25 20:20:41 2011):

The system is going down for reboot NOW!
INIT: Switching to runlevel: 6
INIT: Sending processes the TERM signal
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "sksd" (PID 2487) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "Security Daemon" (PID 2499) is
forced exit.
Jul 25 20:20:41 %TTYD-2-TTYD_ERROR TTYD Error ttyd bad select
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "stp" (PID 2765) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "fs-daemon" (PID 2455) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "Cert_enroll Daemon" (PID 2500) is
forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "netstack" (PID 2557) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "vdc_mgr" (PID 2484) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "u6rib" (PID 2507) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "res_mgr" (PID 2489) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "licmgr" (PID 2454) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "igmp" (PID 2771) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "adjmgr" (PID 2537) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "Radius Daemon" (PID 2634) is forced
exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "AAA Daemon" (PID 2501) is forced
exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "urib" (PID 2508) is forced exit.
Auto booting bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.4.bin bootflash:/n
exus-1010-mz.4.2.1.SP1.3.bin...
Booting kickstart image: bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.4.bin.
.....Image verification
OK

Starting kernel...
PCI: PIIX3: Enabling Passiv%H+Y4%
001-Usage: init 0123456SsQqAaBbCcUu
mkdir: cannot create directory `/new-root/old-root': File exists
INIT: version 2.85 booting
Bootflash device is /dev/hda
Checking all filesystems..... done.
Setting kernel variables: sysctlnet.ipv4.ip_forward = 0
net.ipv4.ip_default_ttl = 64
net.ipv4.ip_no_pmtu_disc = 1
.
/etc/rc.d/rcS.d/S35iptables: line 41: //iptables: No such file or directory
/etc/rc.d/rcS.d/S35iptables: line 44: //ip6tables: No such file or directory
Loading system software
Uncompressing system image: bootflash:/nexus-1010-mz.4.2.1.SP1.4.bin

Load plugins that defined in image conf: /isan/plugin_img/img.conf
load_plugin: failed read swid map from "/mnt/pss/plugin_swid_map" with rc 0xffffffff.
Plugin will be assigned new ID
Loading plugin 0: core_plugin...
load_plugin: Can't get exclude list from /isan/plugin/0/boot/etc/plugin_exclude.conf (rc
0x40ea0017)

```

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```

plugin_link_to_exec_path: plugin_path = /isan/plugin/0, tar_log =
/isan/plugin_extract_log/0
num srgs 1
0: swid-core-suplsfp, swid-core-suplsfp
num srgs 1
0: swid-suplsfp-ks, swid-suplsfp-ks
INIT: Entering runlevel: 3
Starting dhcpd daemon: dhcpdInternet Systems Consortium DHCP Server V3.0.1rc14
Copyright 2004 Internet Systems Consortium.
All rights reserved.
For info, please visit http://www.isc.org/sw/dhcp/
Wrote 0 deleted host decls to leases file.
Wrote 0 new dynamic host decls to leases file.
Wrote 0 leases to leases file.

Not configured to listen on any interfaces!
.
Exporting directories for NFS kernel daemon...done.
Starting NFS kernel daemon:rpc.nfsd.
rpc.mountddone.

/bin/mkdir: cannot create directory `/bootflash/repository': File exists
/isan/bin/mount_cppa_repository exist

Nexus 1010
cppa-mgr(standby) login: 2011 Jul 26 04:24:22 cppa-mgr %USER-2-SYSTEM_MSG: CLIS: loading
cmd files begin - clis
2011 Jul 26 04:24:29 cppa-mgr %USER-2-SYSTEM_MSG: CLIS: loading cmd files end - clis
2011 Jul 26 04:24:29 cppa-mgr %USER-2-SYSTEM_MSG: CLIS: init begin - clis
2011 Jul 26 04:24:38 cppa-mgr %USER-2-SYSTEM_MSG: Invalid feature name eth-port-sec - clis
Nexus 1010
cppa-mgr(standby) login: admin
Password:
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
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http://www.opensource.org/licenses/gpl-2.0.php and
http://www.opensource.org/licenses/lgpl-2.1.php
cppa-mgr(standby)#

Inactive timeout reached, logging out.

Nexus 1010
cppa-mgr(standby) login:
(The upgrade of the standby Cisco Nexus 1010 begins here.)

Auto booting bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.4.bin
bootflash:/nexus-1010-mz.4.2.1.SP1.4.bin...
Booting kickstart image: bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.4.bin.
.....Image verification
OK

Starting kernel...
PCI: PIIX3: Enabling Passive Veh+001-?Usage: init 0123456SsQqAaBbCcUu
mkdir: cannot create directory `/new-root/old-root': File exists
INIT: version 2.85 booting
Bootflash device is /dev/hda
Checking all filesystems...r.r.r done.

```

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```

Setting kernel variables: sysctlnet.ipv4.ip_forward = 0
net.ipv4.ip_default_ttl = 64
net.ipv4.ip_no_pmtu_disc = 1
.
/etc/rc.d/rcS.d/S35iptables: line 41: //iptables: No such file or directory
/etc/rc.d/rcS.d/S35iptables: line 44: //ip6tables: No such file or directory
Loading system software
Uncompressing system image: bootflash:/nexus-1010-mz.4.2.1.SP1.4.bin

Load plugins that defined in image conf: /isan/plugin_img/img.conf
load_plugin: failed read swid map from "/mnt/pss/plugin_swid_map" with rc 0xffffffff.
Plugin will be assigned new ID
Loading plugin 0: core_plugin...
load_plugin: Can't get exclude list from /isan/plugin/0/boot/etc/plugin_exclude.conf (rc
0x40ea0017)
plugin_link_to_exec_path: plugin_path = /isan/plugin/0, tar_log =
/isan/plugin_extract_log/0
num srgs 1
0: swid-core-suplsfp, swid-core-suplsfp
num srgs 1
0: swid-suplsfp-ks, swid-suplsfp-ks
INIT: Entering runlevel: 3
Starting dhcpd daemon: dhcpdInternet Systems Consortium DHCP Server V3.0.1rc14
Copyright 2004 Internet Systems Consortium.
All rights reserved.
For info, please visit http://www.isc.org/sw/dhcp/
Wrote 0 deleted host decls to leases file.
Wrote 0 new dynamic host decls to leases file.
Wrote 0 leases to leases file.

Not configured to listen on any interfaces!
.
Exporting directories for NFS kernel daemon...done.
Starting NFS kernel daemon:rpc.nfsd.
rpc.mountddone.

/bin/mkdir: cannot create directory `/bootflash/repository': File exists
/isan/bin/mount_cpparepository exist

Continuing with installation, please wait
Trying to start the installer...
Trying to start the installer...
2012 May 26 09:30:15 cppa-mgr %USER-2-SYSTEM_MSG: CLIS: loading cmd files end - clis
2012 May 26 09:30:15 cppa-mgr %USER-2-SYSTEM_MSG: CLIS: init begin - clis
2012 May 26 09:30:32 cppa-mgr %USER-2-SYSTEM_MSG: Invalid feature name eth-port-sec - clis

Module 2: Waiting for module online.
-- SUCCESS
2011 Jul 25 20:20:41 cppa-mgr %SYSMGR-2-HASWITCHOVER_PRE_START: This supervisor is
becoming active (pre-start phase).
2011 Jul 25 20:20:41 cppa-mgr %SYSMGR-2-HASWITCHOVER_START: This supervisor is becoming
active.
2011 Jul 25 20:20:41 cppa-mgr %SYSMGR-2-SWITCHOVER_OVER: Switchover completed.
2011 Jul 25 20:20:58 cppa-mgr %PLATFORM-2-MOD_REMOVE: Module 1 removed (Serial number )

2011 Jul 25 20:24:21 cppa-mgr %PLATFORM-2-MOD_DETECT: Module 1 detected (Serial number
:unavailable) Module-Type Virtual Supervisor Module Model :unavailable
Install has been successful.

Nexus 1010
cppa-mgr login: admin
Password:
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac

```

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```

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Public License (LGPL) Version 2.1. A copy of each such license is available at
http://www.opensource.org/licenses/gpl-2.0.php and
http://www.opensource.org/licenses/lgpl-2.1.php
cpga-mgr# copy running-config startup-config
[#####] 100%
cpga-mgr#

```

The following is an example of upgrade from software version 4.2(1)SP1(2) to 4.2(1)SP1(3).

```

cpga-mgr# install nexus1010 bootflash:repository/nexus-1010.4.2.1.SP1.3.iso
cpga_mgr debug: Using URI: bootflash:/repository/nexus-1010.4.2.1.SP1.3.iso
Installing bootflash:/repository/nexus-1010.4.2.1.SP1.3.iso
.....
Verifying image bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.3.bin for boot variable
"kickstart".
[[#####] 100% -- SUCCESS

Verifying image bootflash:/nexus-1010-mz.4.2.1.SP1.3.bin for boot variable "system".
[[#####] 100% -- SUCCESS

Verifying image type.
[[[[#####] 100% -- SUCCESS

Extracting "system" version from image bootflash:/nexus-1010-mz.4.2.1.SP1.3.bin.
[[#####] 100% -- SUCCESS

Extracting "kickstart" version from image
bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.3.bin.
[#####] 100% -- SUCCESS
.....
Notifying services about system upgrade. [#####]
100% -- SUCCESS
.
Compatibility check is done:
Module bootable Impact Install-type Reason
-----
1 yes non-disruptive reset
2 yes non-disruptive reset

Images will be upgraded according to following table:
Module Image Running-Version New-Version Upg-Required
-----
1 system 4.2(1)SP1(2) 4.2(1)SP1(3) yes
1 kickstart 4.2(1)SP1(2) 4.2(1)SP1(3) yes
2 system 4.2(1)SP1(2) 4.2(1)SP1(3) yes
2 kickstart 4.2(1)SP1(2) 4.2(1)SP1(3) yes
Module Running-Version ESX Version VSM Compatibility ESX Compatibility
-----
-----

Install is in progress, please wait.

Syncing image bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.3.bin to standby.
[[#####] 100% -- SUCCESS

Syncing image bootflash:/nexus-1010-mz.4.2.1.SP1.3.bin to standby.
[# [#####] 100% -- SUCCESS

```

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```

Setting boot variables.
[# [#####] 100% -- SUCCESS

Performing configuration copy.
[[#####] 100% -- SUCCESS
.....2011 Jul 25 20:12:16 cppa-mgr %PLATFORM-2-MOD_REMOVE: Module 2
removed (Serial number T023D750981)
.....2011 Jul 25
20:14:54 cppa-mgr %PLATFORM-2-MOD_DETECT: Module 2 detected (Serial number :unavailable)
Module-Type Virtual Supervisor Module Model :unavailable
.....
Module 2: Waiting for module online.
-- SUCCESS
.....
.....
Notifying services about the switchover.
[#####] 100% -- SUCCESS

"Switching over onto standby".
.
Broadcast message from root (console) (Mon Jul 25 20:20:41 2011):

The system is going down for reboot NOW!
INIT: Switching to runlevel: 6
INIT: Sending processes the TERM signal
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "sksd" (PID 2487) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "Security Daemon" (PID 2499) is
forced exit.
Jul 25 20:20:41 %TTYD-2-TTYD_ERROR TTYD Error ttyd bad select
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "stp" (PID 2765) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "fs-daemon" (PID 2455) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "Cert_enroll Daemon" (PID 2500) is
forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "netstack" (PID 2557) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "vdc_mgr" (PID 2484) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "u6rib" (PID 2507) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "res_mgr" (PID 2489) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "licmgr" (PID 2454) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "igmp" (PID 2771) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "adjmgr" (PID 2537) is forced exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "Radius Daemon" (PID 2634) is forced
exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "AAA Daemon" (PID 2501) is forced
exit.
Jul 25 20:20:41 %LIBSYSMGR-3-SIGTERM_FORCE_EXIT Service "urib" (PID 2508) is forced exit.
Auto booting bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.3.bin bootflash:/n
exus-1010-mz.4.2.1.SP1.3.bin...
Booting kickstart image: bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.3.bin.
.....Image verification
OK

Starting kernel...
PCI: PIIX3: Enabling Passiv%H+Y4%
001-Usage: init 0123456SsQqAaBbCcUu
mkdir: cannot create directory `/new-root/old-root': File exists
INIT: version 2.85 booting
Bootflash device is /dev/hda
Checking all filesystems..... done.
Setting kernel variables: sysctlnet.ipv4.ip_forward = 0
net.ipv4.ip_default_ttl = 64
net.ipv4.ip_no_pmtu_disc = 1
.
/etc/rc.d/rcS.d/S35iptables: line 41: //iptables: No such file or directory
/etc/rc.d/rcS.d/S35iptables: line 44: //ip6tables: No such file or directory

```

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```

Loading system software
Uncompressing system image: bootflash:/nexus-1010-mz.4.2.1.SP1.3.bin

Load plugins that defined in image conf: /isan/plugin_img/img.conf
load_plugin: failed read swid map from "/mnt/pss/plugin_swid_map" with rc 0xffffffff.
Plugin will be assigned new ID
Loading plugin 0: core_plugin...
load_plugin: Can't get exclude list from /isan/plugin/0/boot/etc/plugin_exclude.conf (rc
0x40ea0017)
plugin_link_to_exec_path: plugin_path = /isan/plugin/0, tar_log =
/isan/plugin_extract_log/0
num srgs 1
0: swid-core-suplsfp, swid-core-suplsfp
num srgs 1
0: swid-suplsfp-ks, swid-suplsfp-ks
INIT: Entering runlevel: 3
Starting dhcpd daemon: dhcpdInternet Systems Consortium DHCP Server V3.0.1rc14
Copyright 2004 Internet Systems Consortium.
All rights reserved.
For info, please visit http://www.isc.org/sw/dhcp/
Wrote 0 deleted host decls to leases file.
Wrote 0 new dynamic host decls to leases file.
Wrote 0 leases to leases file.

Not configured to listen on any interfaces!
.
Exporting directories for NFS kernel daemon...done.
Starting NFS kernel daemon:rpc.nfsd.
rpc.mountddone.

/bin/mkdir: cannot create directory `/bootflash/repository': File exists
/isan/bin/mount_cpp_a_repository exist

Nexus 1010
cppa-mgr(standby) login: 2011 Jul 26 04:24:22 cppa-mgr %USER-2-SYSTEM_MSG: CLIS: loading
cmd files begin - clis
2011 Jul 26 04:24:29 cppa-mgr %USER-2-SYSTEM_MSG: CLIS: loading cmd files end - clis
2011 Jul 26 04:24:29 cppa-mgr %USER-2-SYSTEM_MSG: CLIS: init begin - clis
2011 Jul 26 04:24:38 cppa-mgr %USER-2-SYSTEM_MSG: Invalid feature name eth-port-sec - clis
Nexus 1010
cppa-mgr(standby) login: admin
Password:
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
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http://www.opensource.org/licenses/gpl-2.0.php and
http://www.opensource.org/licenses/lgpl-2.1.php
cppa-mgr(standby)#

Inactive timeout reached, logging out.

Nexus 1010
cppa-mgr(standby) login:
(The upgrade of the standby Cisco Nexus 1010 begins here.)

Auto booting bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.3.bin
bootflash:/nexus-1010-mz.4.2.1.SP1.3.bin...
Booting kickstart image: bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.3.bin.
.....Image verification

```

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```

OK

Starting kernel...
PCI: PIIX3: Enabling Passive Veh+001-?Usage: init 0123456SsQqAaBbCcUu
mkdir: cannot create directory `/new-root/old-root': File exists
INIT: version 2.85 booting
Bootflash device is /dev/hda
Checking all filesystems...r.r.r done.

Setting kernel variables: sysctlnet.ipv4.ip_forward = 0
net.ipv4.ip_default_ttl = 64
net.ipv4.ip_no_pmtu_disc = 1
.
/etc/rc.d/rcS.d/S35iptables: line 41: //iptables: No such file or directory
/etc/rc.d/rcS.d/S35iptables: line 44: //ip6tables: No such file or directory
Loading system software
Uncompressing system image: bootflash:/nexus-1010-mz.4.2.1.SP1.3.bin

Load plugins that defined in image conf: /isan/plugin_img/img.conf
load_plugin: failed read swid map from "/mnt/pss/plugin_swid_map" with rc 0xffffffff.
Plugin will be assigned new ID
Loading plugin 0: core_plugin...
load_plugin: Can't get exclude list from /isan/plugin/0/boot/etc/plugin_exclude.conf (rc
0x40ea0017)
plugin_link_to_exec_path: plugin_path = /isan/plugin/0, tar_log =
/isan/plugin_extract_log/0
num srgs 1
0: swid-core-suplsfp, swid-core-suplsfp
num srgs 1
0: swid-suplsfp-ks, swid-suplsfp-ks
INIT: Entering runlevel: 3
Starting dhcpd daemon: dhcpdInternet Systems Consortium DHCP Server V3.0.1rc14
Copyright 2004 Internet Systems Consortium.
All rights reserved.
For info, please visit http://www.isc.org/sw/dhcp/
Wrote 0 deleted host decls to leases file.
Wrote 0 new dynamic host decls to leases file.
Wrote 0 leases to leases file.

Not configured to listen on any interfaces!
.
Exporting directories for NFS kernel daemon...done.
Starting NFS kernel daemon:rpc.nfsd.
rpc.mountddone.

/bin/mkdir: cannot create directory `/bootflash/repository': File exists
/isan/bin/mount_cpparepository exist

Continuing with installation, please wait
Trying to start the installer...
Trying to start the installer...
2012 May 26 09:30:15 cppa-mgr %USER-2-SYSTEM_MSG: CLIS: loading cmd files end - clis
2012 May 26 09:30:15 cppa-mgr %USER-2-SYSTEM_MSG: CLIS: init begin - clis
2012 May 26 09:30:32 cppa-mgr %USER-2-SYSTEM_MSG: Invalid feature name eth-port-sec - clis

Module 2: Waiting for module online.
-- SUCCESS
2011 Jul 25 20:20:41 cppa-mgr %SYSMGR-2-HASWITCHOVER_PRE_START: This supervisor is
becoming active (pre-start phase).
2011 Jul 25 20:20:41 cppa-mgr %SYSMGR-2-HASWITCHOVER_START: This supervisor is becoming
active.
2011 Jul 25 20:20:41 cppa-mgr %SYSMGR-2-SWITCHOVER_OVER: Switchover completed.
2011 Jul 25 20:20:58 cppa-mgr %PLATFORM-2-MOD_REMOVE: Module 1 removed (Serial number )

```


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```

2011 Jul 25 20:24:21 cppa-mgr %PLATFORM-2-MOD_DETECT: Module 1 detected (Serial number
:unavailable) Module-Type Virtual Supervisor Module Model :unavailable
Install has been successful.

Nexus 1010
cppa-mgr login: admin
Password:
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
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http://www.opensource.org/licenses/gpl-2.0.php and
http://www.opensource.org/licenses/lgpl-2.1.php
cppa-mgr# copy running-config startup-config
[#####] 100%
cppa-mgr#

```

Feature History for Software Upgrade

This section provides the software installation and upgrade release history.

Feature Name	Releases	Feature Information
Software upgrade	4.2(1)SP1(2)	This feature was introduced.

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