Upgrading the Cisco Nexus Cloud Services Platform Software

This chapter describes how to upgrade Cisco Nexus Cloud Services Platform product family to the new release and includes the following sections:

Information About the In Service Software Upgrade

The Cisco Nexus Cloud Services Platform 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 virtual service blades (VSBs) will not be affected during the upgrade process.

After you enter the command to upgrade the software, from that point on, the whole upgrade process is automated. The upgrade process is in the following sequence:

1. The ISO image components are extracted, verified and synchronized to the standby Cisco Nexus Cloud Services Platform.
2. The standby Cisco Nexus Cloud Services Platform is upgraded.
3. The VSBs on the standby are restarted.
4. The upgrade of the active is initiated.

Once the upgrade of the active and standby platform is complete, both form a high-availability (HA) pair by running the upgraded software.

Prerequisites

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

- Verify that you have the following product ID (PID), using the Verifying the CIMC Software Version, page 2-4.

  - N1K-1110-S on the Cisco Nexus 1110-S
  - N1K-1110-X on the Cisco Nexus 1110-X
  - N1K-C1010 on the Cisco Nexus 1010
  - N1K-C1010-X on the Cisco Nexus 1010-X

Caution You cannot install or upgrade to Release 4.2(1)SP1(6.1) unless your Cisco Nexus 1110-S has the product ID (PID) N1K-1110-S, or your Cisco Nexus 1110-X has the product ID (PID) N1K-1110-X, or 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.

- Upgrade the firmware using the Cisco Host Upgrade Utility (HUU). The HUU is a tool that upgrades the following components:
  - Cisco Integrated Management Controller (CIMC)
  - System BIOS
  - LAN on Motherboard (LOM)
  - Cisco UCS P81E Virtual Interface Card (VIC)
  - Cisco UCS VIC 1225
  - Cisco UCS VIC 1225-T
  - Network adapters
  - LSI

Use the following Cisco HUU versions to upgrade the firmware before you upgrade the Cisco Nexus Cloud Services Platform:

  - For the Cisco Nexus 1010 product family, see the *Cisco Host Upgrade Utility Release 1.4(3) Quick Start Guide.*
  - For the Cisco Nexus 1110 product family, see the *Cisco Host Upgrade Utility 1.5(1) User Guide*.

Caution We recommend that you upgrade the firmware using the **Cisco Host Upgrade Utility**. Failing to do so might result in network setup failure and/or system reboots. For information about the Cisco Host Upgrade Utility, see the Cisco Host Upgrade Utility section.

- Log in to the command-line-interface (CLI) from the CIMC/Serial over LAN (SoL) port on the rear of the Cisco Nexus Cloud Services Platform.

  Note Do not log in using the management IP address for this procedure. This procedure requires that you upgrade and reload the standby Cisco Nexus Cloud Services Platform. After you upgrade, the HA pair will have incompatible software versions. By logging in using SoL, you prevent the split brain that occurs in this configuration.

- Save a backup copy of your running configuration on an external server.
- Save a copy of the new Cisco Nexus Cloud Services Platform software file from the following Cisco.com software download site to an external server:

  www.cisco.com/go/1010download

- Install Cisco Integrated Management Controller (CIMC) Software Version 1.4(3s)4 or higher for the Cisco Nexus 1010 product family installed and CIMC Software Version 1.5(1f) or higher for Cisco Nexus 1110 product family installed. For more information, see the Verifying the CIMC Software Version section.

Guidelines and Limitations

The Cisco Nexus Cloud Services Platform product family has the following configuration guidelines and limitations:

- This procedure upgrades both the active and standby Cisco Nexus Cloud Services Platform.
- After reloading the new software release 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. Do not set the boot variables manually.

Upgrading from Software Release 4.2(1)SP1(5.1)or Later Releases

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

From Software Release	To Software Release
4.2(1)SP1(3)	4.2(1)SP1(6.1)
4.2(1)SP1(4)	
4.2(1)SP1(5.1) or 4.2(1)SP1(5.1a)	

Note Upgrade from Release 4.2(1)SP1(1) or 4.2(1)SP1(2) to 4.2(1)SP1(6.1) is not supported.

Note For information about upgrading Cisco Nexus 1000V software on a VSB, see the *Cisco Nexus 1000V Software Installation and Upgrade Guide, Release 4.2(1)SV2(2.1)*.

DETAILED STEPS

Step 1 From the Cisco Nexus Cloud Services Platform serial over LAN (SoL) connection, copy any unsaved configuration from the running configuration to the startup configuration so that it is preserved after the reload.

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

Example:
```
switch# copy scp://user@linux-box.cisco.com/home/user/nexus-1010.4.2.1.SP1.5.1a.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.SP1.5.1a.iso       100%  258234  10.3KB/s   00:15
switch#
```

Step 3 Install the new image.

Example:
```
switch# install nexus1010 bootflash:repository/nexus-1010.4.2.1.sp1.5.1a.iso
```

The following things occur on the switch:

- The new software image is copied to bootflash and the standby Cisco Nexus Cloud Services Platform 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.
- The active switch reloads the standby switch with the new software release.
- The system waits for all VSBs to come up before the standby switch takes over and reloads the active switch with the new software version.

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

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.

```
switch# show module
Mod Ports Module-Type                       Model  Status
--- ----- --------------------------------  ------ ------------
1   0     Cisco Virtual Services Appliance  VSA    active *
2   0     Cisco Virtual Services Appliance  VSA    ha-standby

Mod Sw               Hw
--- ---------------- ------------------------------------------------
```

```
1   4.2(1)SP1(5.1a)   0.0
2   4.2(1)SP1(5.1a)   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    10.78.109.100   NA           NA
2    10.78.109.100   NA           NA

* this terminal session
```

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

Example:

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

Configuration Examples for Upgrading the Cisco Nexus Cloud Services Platform

This example shows how to upgrade from software Release version 4.2(1)SP1(5.1) to Release 4.2(1)SP1(6.1).

```
Cisco VSA
login: admin
Password:
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2012, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained in this software are
owned by other third parties and used and distributed under
license. Certain components of this software are licensed under
the GNU General Public License (GPL) version 2.0 or the GNU
Lesser General 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

switch#
switch# show module
Mod  Ports  Module-Type                      Model               Status
---  -----  --------------------------------  ------------------  ------------
1    0      Cisco Virtual Services Appliance  VSA                 active *
2    0      Cisco Virtual Services Appliance  VSA                 ha-standby

Mod  Sw                Hw
---  ----------------  ------------------------------------------------
1    4.2(1)SP1(5.1)    0.0
2    4.2(1)SP1(5.1)    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    80.80.80.2       NA                                    NA
2    80.80.80.2       NA                                    NA

* this terminal session

switch# dir bootflash:repository
      16384     Oct 11 17:49:45 2013  lost+found/
  304791552     Oct 11 11:56:24 2013  nexus-1010.4.2.1.SP1.6.1.iso

Usage for bootflash://sup-local
  309116928 bytes used
 3682263040 bytes free
 3991379968 bytes total
switch#install nexus1010 bootflash:repository//nexus-1010.4.2.1.SP1.6.1.iso
switch debug: Using URI: bootflash:/repository//nexus-1010.4.2.1.SP1.6.1.iso
Installing
bootflash:/repository//nexus-1010.4.2.1.SP1.6.1.iso.....................................
.
Verifying image bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.6.1.bin for boot variable
"kickstart".
Verifying image bootflash:/nexus-1010-mz.4.2.1.SP1.6.1.bin for boot variable "system".
[# ]   0%.[####################] 100% -- SUCCESS
Verifying image type.
[# ]0%[## ]
5%[### ]
10%[#### ]
15%[######## ]
35%[######### ]
40%[########### ]
45%[############ ]
50%[################ ]
70%[################# ]
75%[################## ]
80%[################### ]
85%[####################]
100%.[####################] 100% -- SUCCESS
[# ]   0% -[####################] 100% -- SUCCESS
Extracting "system" version from image bootflash:/nexus-1010-mz.4.2.1.SP1.6.1.bin.
[# ]   0%.[####################] 100% -- SUCCESS
Extracting "kickstart" version from image
bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.6.1.bin.
[# ]   0%-[####################] 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(5.1)          4.2(1)SP1(6.1)           yes
1   kickstart          4.2(1)SP1(5.1)          4.2(1)SP1(6.1)           yes
2      system          4.2(1)SP1(5.1)          4.2(1)SP1(6.1)           yes
2   kickstart          4.2(1)SP1(5.1)          4.2(1)SP1(6.1)           yes
```

```
Module         Running-Version                                          ESX Version
VSM Compatibility       ESX Compatibility
------  ---------------------  ------------------------------------------------------
---------------------  ----------------------
Install is in progress, please wait.Syncingimage
bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.6.1.bin to standby.
[#]   0%..
[####################] 100% -- SUCCESS

Syncing image bootflash:/nexus-1010-mz.4.2.1.SP1.6.1.bin to standby.
[#]   0%..
[####################] 100% -- SUCCESS
Setting boot variables.
[#]   0%...
[####################] 100% -- SUCCESS

Performing configuration copy.
[
[####################] 100% -- SUCCESS.....................
2013 Oct 11 12:01:29 switch %PLATFORM-2-MOD_REMOVE: Module 2 removed (Serial number
T023D780381)
.....................................................................................
.........................
2013 Oct 11 12:05:28 switch %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"..
```

```
Cisco VSA
switch login: admin
Password:
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2013, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained in this software are
owned by other third parties and used and distributed under
license. Certain components of this software are licensed under
the GNU General Public License (GPL) version 2.0 or the GNU
Lesser General 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
switch# show module
Mod  Ports  Module-Type                       Model               Status
---  -----  --------------------------------  ------------------  ------------
1    0      Cisco Virtual Services Appliance  VSA                 ha-standby
2    0      Cisco Virtual Services Appliance  VSA                 active *

Mod  Sw                Hw
---  ----------------  ------------------------------------------------
1    4.2(1)SP1(6.1)    0.0
2    4.2(1)SP1(6.1)    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    80.80.80.2       NA                                    NA
2    80.80.80.2       NA                                    NA
```

```
* this terminal session
```

This example shows how to upgrade from software Release 4.2(1)SP1(3) to Release 4.2(1)SP1(5.1):

```
login as: admin
Nexus 1010
Using keyboard-interactive authentication.
Password:
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2011, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained in this software are
owned by other third parties and used and distributed under
license. Certain components of this software are licensed under
the GNU General Public License (GPL) version 2.0 or the GNU
Lesser General 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

switch# show module

Mod  Ports  Module-Type                       Model               Status
---  -----  --------------------------------  ------------------  ------------
1    0      Nexus 1010 (Virtual Services App  Nexus1010           active *
2    0      Nexus 1010 (Virtual Services App  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    10.78.109.59     NA                                    NA
2    10.78.109.59     NA                                    NA

* this terminal session

switch# dir bootflash:repository

16384     Jun 11 02:49:38 2014  lost+found/
  305928192     Jun 12 12:33:09 2014  nexus-1010.4.2.1.SP1.5.0.33.iso

Usage for bootflash://sup-local
  308862976 bytes used
 3682516992 bytes free
 3991379968 bytes total


switch# install nexus1010 bootflash:

bootflash:///             bootflash://sup-1/        bootflash://sup-local/

bootflash://module-1/     bootflash://sup-2/        bootflash://sup-remote/

bootflash://module-2/     bootflash://sup-active/   bootflash://sup-standby/
```

```
[J

switch# install nexus1010 bootflash:repository/nexus-1010.4.2.1.SP1.5.0.33.iso

cppa_mgr debug: Using URI: bootflash:/repository/nexus-1010.4.2.1.SP1.5.0.33.iso
Installing bootflash:/repository/nexus-1010.4.2.1.SP1.5.0.33.iso
..................
Verifying image bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.5.1.bin for boot variable
"kickstart".
[# ]   0%[####################] 100% -- SUCCESS

Verifying image bootflash:/nexus-1010-mz.4.2.1.SP1.5.1.bin for boot variable "system".
[# ]   0%..[####################] 100% -- SUCCESS

Verifying image type.
[# ]   0%[#####               ] 100%[####################] 100% -- SUCCESS

Extracting "system" version from image bootflash:/nexus-1010-mz.4.2.1.SP1.5.1.bin.
[# ]   0%.[####################] 100% -- SUCCESS

Extracting "kickstart" version from image
bootflash:/nexus-1010-kickstart-mz.4.2.1.SP1.5.1.bin.
[# ]   0%[####################] 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(5.1)           yes
     1   kickstart            4.2(1)SP1(3)          4.2(1)SP1(5.1)           yes
     2      system            4.2(1)SP1(3)          4.2(1)SP1(5.1)           yes
     2   kickstart            4.2(1)SP1(3)          4.2(1)SP1(5.1)           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.SP1.5.1.bin to standby.
[# ]   0%.[####################] 100% -- SUCCESS

Syncing image bootflash:/nexus-1010-mz.4.2.1.SP1.5.1.bin to standby.
[# ]   0%..[####################] 100% -- SUCCESS

Setting boot variables.
[# ]   0%...[####################] 100% -- SUCCESS

Performing configuration copy.
[# ]   0%[## ]
5%[### ]
10%[#### ]
15%[######## ]
35%[######### ]
40%[########## ]
```

```
45%[###########  ]
50%[################  ]
70%[#################  ]
75%[##################  ]
80%[###################  ]
85%[####################]
100%.[####################] 100% -- SUCCESS
.....................2014 Jun 12 12:37:03 n1010 %PLATFORM-2-MOD_REMOVE: Module 2 removed
(Serial number T023D7FFD81)

................................................................................
...................2014 Jun 12 12:40:41 n1010 %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".
login as: admin
Nexus 1010
Using keyboard-interactive authentication.
Password:
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
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The copyrights to certain works contained in this software are
owned by other third parties and used and distributed under
license. Certain components of this software are licensed under
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Lesser General 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


switch# show module

Mod  Ports  Module-Type                       Model               Status
---  -----  --------------------------------  ------------------  ------------
1    0      Cisco Virtual Services Appliance  VSA                 ha-standby
2    0      Cisco Virtual Services Appliance  VSA                 active *

Mod  Sw                Hw
---  ----------------  ------------------------------------------------
1    4.2(1)SP1(5.1)    0.0
2    4.2(1)SP1(5.1)    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    10.78.109.59     NA                                    NA
2    10.78.109.59     NA                                    NA

* this terminal session
```

This example shows how to upgrade from software Release 4.2(1)SP1(3) to Release 4.2(1)SP1(4):

```
cppa-mgr# install nexus1010 bootflash:repository/nexus-1010.4.2.1.SP1.4.iso
cppa_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 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"(PID2455)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"(PID2557)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)
plugin_link_to_exec_path: plugin_path = /isan/plugin/0, tar_log =
/isan/plugin_extract_log/0
```

```
num srgs 1
0: swid-core-sup1sfp, swid-core-sup1sfp
num srgs 1
0: swid-sup1sfp-ks, swid-sup1sfp-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.

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-sup1sfp, swid-core-sup1sfp
num srgs 1
0: swid-sup1sfp-ks, swid-sup1sfp-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

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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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.