

# CSP 2100 Upgrade Procedure

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## Introduction

This document describes the procedure to do an Upgrade of Cisco Cloud Services Platform (CSP) 2100.  
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## Prerequisites

## Requirements

Cisco recommends that you have knowledge of Cisco CSP 2100.

Please refer the release notes prior to upgrade,

[https://www.cisco.com/c/en/us/td/docs/switches/datacenter/csp\\_2100/release\\_notes/b\\_Cisco\\_CSP\\_2100\\_ReleaseNotes\\_2\\_2\\_5.html](https://www.cisco.com/c/en/us/td/docs/switches/datacenter/csp_2100/release_notes/b_Cisco_CSP_2100_ReleaseNotes_2_2_5.html)

Please refer the quick start guide here,

[https://www.cisco.com/c/en/us/td/docs/switches/datacenter/csp\\_2100/quick\\_start/b\\_Cisco\\_CSP\\_2100\\_Quick\\_Start\\_2\\_2\\_5.html#id\\_14296](https://www.cisco.com/c/en/us/td/docs/switches/datacenter/csp_2100/quick_start/b_Cisco_CSP_2100_Quick_Start_2_2_5.html#id_14296)

## Additional Information

- CSP-2100-X1 is C220-M4S
- CSP-2100-X2 is C240-M4S

## Component Used

The information in this document is based on these software and hardware versions,

- CSP 2100
- UCS C220 M4S Series Server- Cisco Integrated Management Controller (CIMC)
- Keyboard Video Mouse (KVM) to Map Virtual Media
- CSP 2100 software as an ISO image, from

<https://software.cisco.com/download/home/286286769/type/286289082/release/2.2.5>

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any changes or configurations. Cisco recommends taking backup of the configuration before proceeding with the Upgrade.

## Scenario

In this scenario we are upgrading the CSP 2100 from **version 2.2.4** to **2.2.5**

## Procedure

**Note: Please ensure that during the upgrade, the network connectivity does not flap between the work station where KVM console is running to the CSP-2100.**

STEP 1. Use the CIMC KVM console and check the current firmware by running "**show version**" command.

```
csp2100a# show version

Cisco Cloud Services Platform Software, 2100 Software (CSP-2100), Version 2.2.4 Build:48
TAC Support: http://www.cisco.com/tac
Copyright (c) 2016 by Cisco Systems, Inc
Compiled Thursday 21-December-2017 20:30

Linux csp2100a 3.10.0-693.5.2.el7.x86_64 #1 SMP Fri Oct 13 10:46:25 EDT 2017 x86_64 x86_64 x86_64 GNU/Linux
Red Hat Enterprise Linux Server release 7.3 (Maipo)
CSP-2100 uptime is 11 weeks, 1 day, 10 hours, 54 minutes, 3 seconds

Cisco UCSC-C220-M4S, Version C220M4.3.0.3c.0.0831170216, processor Intel(R) Xeon(R) CPU E5-2690 v3 @ 2.60GHz
48 CPUs with 29774044 kB / 65757260 kB of memory
L1d cache 32K, L1i cache 32K, L2 cache 256K, L3 cache 30720K

4 - Total Physical Interfaces (PNICs)
 1 - 1 Gbps Physical Interfaces (PNICs) Up
 2 - 10 Gbps Physical Interfaces (PNICs) Up
 1 - 1 Gbps Physical Interfaces (PNICs) Down/Unconnected

32 - Total SR-IOV virtual function (VF) interfaces enabled
 0 - Number VF Interfaces currently in service use
```

STEP 2. Save the configuration with command "**save config-file filename.sav**" (Recommended).

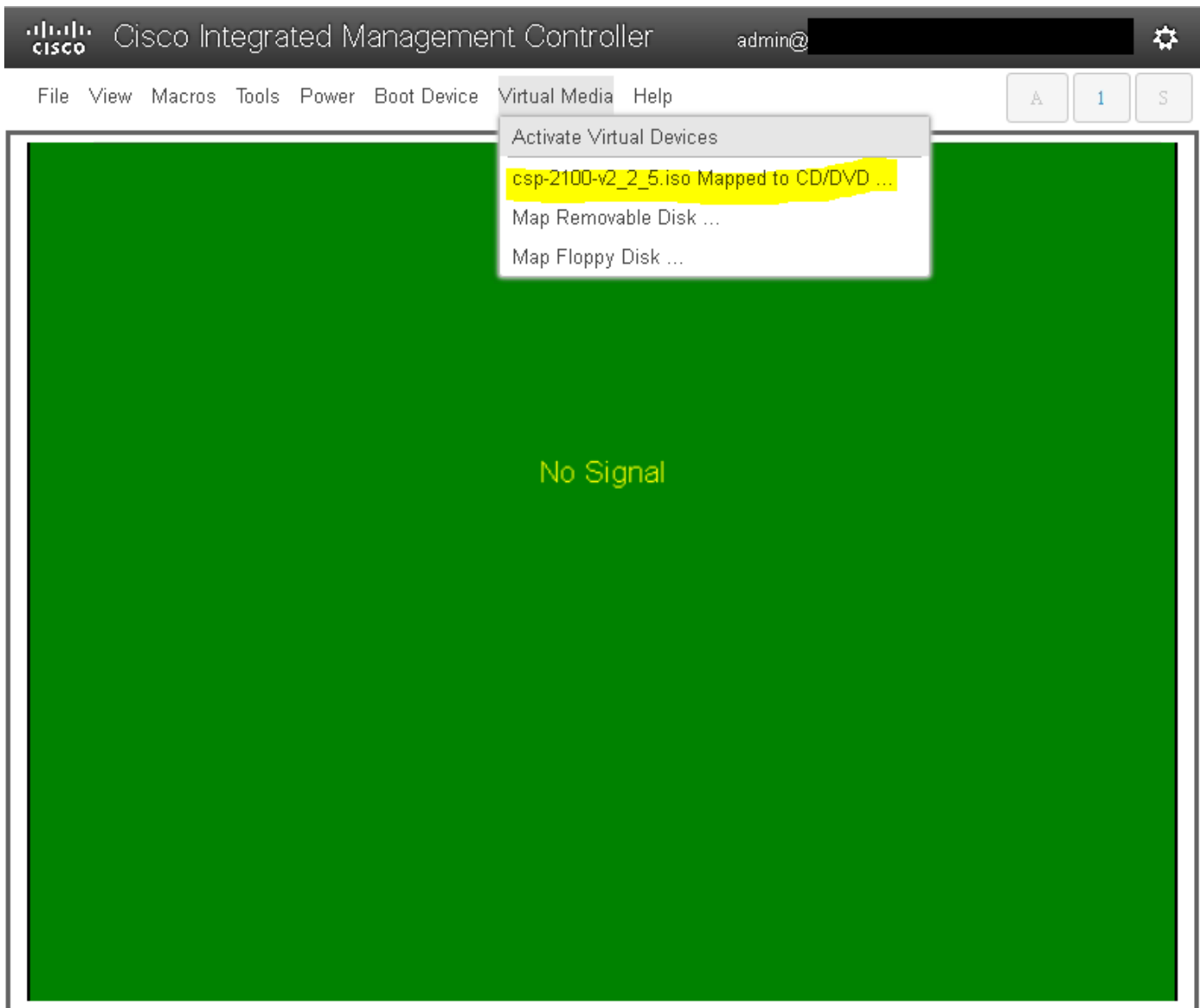
```
csp2100a# save config-file config_backup.sav
```

STEP 3. Check the file **config\_backup.sav** is generated

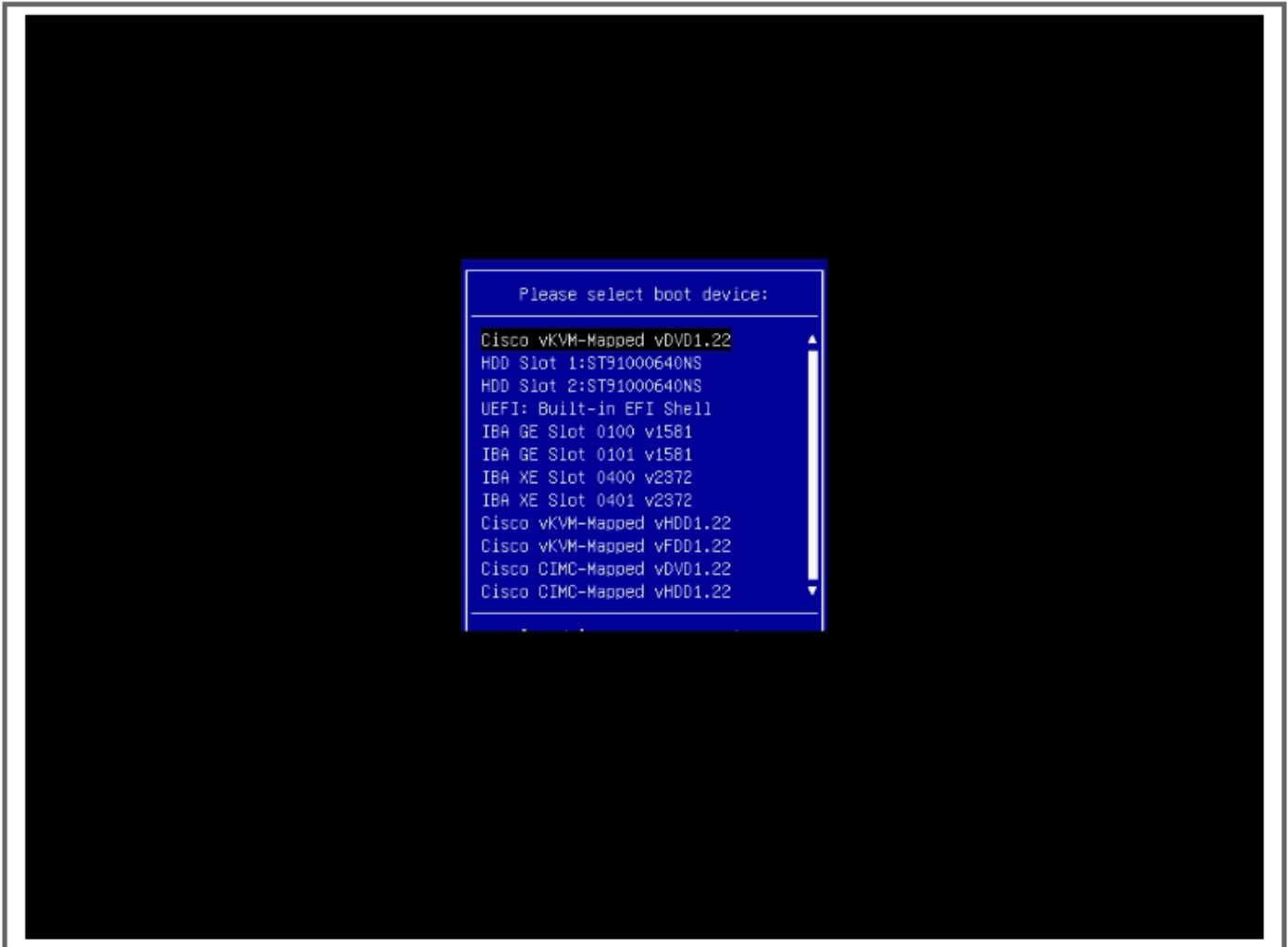
```
csp2100a# show repository
Local storage:
  File Name                Last Modified                Size
pnuc_utils.py              Fri Feb 16 13:53:26 2018    16660
controller-17.2.6-9019.qcow2 Fri Feb  2 04:35:45 2018    2366544384
config_backup.sav         Thu Apr 19 20:57:20 2018      2778
dplugdisk2                Tue Mar  6 14:17:27 2018    3145728
se.qcow2                   Sun Feb  4 01:56:59 2018    671525376
avi_meta_controller.yml   Fri Feb  2 16:30:48 2018       121
avi_meta_data_se-1.yml    Mon Feb  5 17:17:59 2018       160
csp_show_tech.tar.gz      Thu Feb  1 17:53:16 2018    9904003
```

STEP 4. Download the iso image for CSP 2100 from <https://software.cisco.com/download/home/286286769/type/286289082/release/2.2.5>

STEP 5. Open KVM and map the ISO image.



STEP 6. Power Cycle the server (cold reboot) and press F6 to enter "Boot Selection Menu" and select "Cisco vKVM-Mapped vDVD1.22"



STEP 7. Once the ISO Image boots select "Install CSP-2100". Although we are selecting "Install CSP-2100", this is still going to perform **Upgrade**.

CSP-2100 2.2.5

**Install CSP-2100**

Test this media & install CSP-2100

Troubleshooting



Press Tab for full configuration options on menu items.

Automatic boot in 20 seconds...

STEP 8. The Installation process starts and takes around **45-50 minutes** to complete during which the installer will run **Pre-upgrade and Post-upgrade installation scripts** to upgrade the CSP 2100 to the new firmware version.



Starting installer, one moment...



```
Starting installer, one moment...
anaconda 21.48.22.93-1 for Red Hat Enterprise Linux 7.3 started.
 * installation log files are stored in /tmp during the installation
 * shell is available on TTY2
 * when reporting a bug add logs from /tmp as separate text/plain attachments
23:11:31 Running pre-installation scripts
23:11:48 Not asking for UIC because of an automated install
23:11:48 Not asking for UIC because text mode was explicitly asked for in kickstart
23:11:48 Not asking for UIC because we don't have a network
Starting automated install.....
Checking software selection
Generating updated storage configuration
Checking storage configuration...
=====
Installation

 1)  Language settings                2)  Time settings
    (English (United States))              (America/New_York timezone)
 3)  Installation source          4)  Software selection
    (Local media)                          (Custom software selected)
 5)  Installation Destination    6)  Kdump
    (Custom partitioning selected)         (Kdump is enabled)
 7)  Network configuration          8)  User creation
    (Not connected)                       (No user will be created)
=====
Progress
Setting up the installation environment
.
Creating swap on /dev/sda3
.
Creating ext4 on /dev/sda5
.
Creating ext4 on /dev/sda2
.
Creating biosboot on /dev/sda1
.
Running pre-installation scripts
.
Starting package installation process
-
anaconda1 1:main* 2:shell 3:log 4:storage-log 5:program-log Switch tab: Alt+Tab | Help: F1
```



```
Installing pexpect (636/663)
Installing patchutils (637/663)
Installing kernel-devel (638/663)
Installing libpcap-devel (639/663)
Installing ncurses-devel (640/663)
Installing telnet (641/663)
Installing libsysfs (642/663)
Installing vconfig (643/663)
Installing iwl135-firmware (644/663)
Installing iwl2030-firmware (645/663)
Installing iwl5000-firmware (646/663)
Installing rootfiles (647/663)
Installing iwl7265-firmware (648/663)
Installing ivto-firmware (649/663)
Installing iwl6000g2b-firmware (650/663)
Installing iwl2000-firmware (651/663)
Installing iwl6050-firmware (652/663)
Installing iwl4965-firmware (653/663)
Installing iwl6000g2a-firmware (654/663)
Installing iwl5150-firmware (655/663)
Installing iwl1000-firmware (656/663)
Installing iwl3160-firmware (657/663)
Installing NetworkManager-config-server (658/663)
Installing iwl100-firmware (659/663)
Installing iwl6000-firmware (660/663)
Installing iwl3945-firmware (661/663)
Installing iwl105-firmware (662/663)
Installing iwl7260-firmware (663/663)
Performing post-installation setup tasks

Installing boot loader
.
Performing post-installation setup tasks
.

Configuring installed system
.
Writing network configuration
.
Creating users
.
Configuring addons
.
Generating initramfs
.
Running post-installation scripts
```

```
[anaconda1 1:main* 2:shell 3:log 4:storage-log 5:program-log
```

```
Switch tab: Alt+Tab | Help: F1
```

STEP 9. After **Running Post installation scripts**, all the services are stopped and server Reboots:





```
[ OK ] Stopped target Local File Systems.
       Unmounting /mnt/sysimage/sys/fs/selinux...
       Unmounting /mnt/sysimage/run...
       Unmounting /mnt/sysimage/dev/pts...
       Unmounting /mnt/sysimage/proc...
       Unmounting /mnt/sysimage/osp...
       Unmounting /mnt/sysimage/dev/shm...
       Unmounting /mnt/sysimage/upgrade...
       Unmounting Temporary Directory...
       Unmounting /run/install/repo...
[ OK ] Stopped Configure read-only root support.
       Stopping Configure read-only root support...
[ OK ] Stopped Rebuild Hardware Database.
       Stopping Rebuild Hardware Database...
       Unmounting Configuration File System...
[ OK ] Stopped Setup Virtual Console.
       Stopping Setup Virtual Console...
       Stopping Load/Save Random Seed...
[ OK ] Unmounted /mnt/sysimage/sys/fs/selinux.
[ OK ] Unmounted /mnt/sysimage/run.
[ OK ] Unmounted /mnt/sysimage/dev/pts.
[ OK ] Unmounted /mnt/sysimage/proc.
[ OK ] Unmounted /mnt/sysimage/dev/shm.
[ OK ] Unmounted Temporary Directory.
[ OK ] Failed unmounting /run/install/repo.
[ OK ] Unmounted Configuration File System.
[ OK ] Stopped Load/Save Random Seed.
       Unmounting /mnt/sysimage/dev...
       Unmounting /mnt/sysimage/sys...
[ OK ] Unmounted /mnt/sysimage/osp.
[ OK ] Unmounted /mnt/sysimage/dev.
[ OK ] Unmounted /mnt/sysimage/sys.
[ OK ] Unmounted /mnt/sysimage/upgrade.
       Unmounting /mnt/sysimage...
[ OK ] Unmounted /mnt/sysimage.
[ OK ] Reached target Unmount All Filesystems.
[ OK ] Stopped target Local File Systems (Pre).
       Stopping Monitoring of LVM2 mirrors, snapshots etc. using dmeventd or progress polling...
[ OK ] Stopped Create Static Device Nodes in /dev.
       Stopping Create Static Device Nodes in /dev...
[ OK ] Stopped Remount Root and Kernel File Systems.
       Stopping Remount Root and Kernel File Systems...
[ OK ] Stopped Collect Read-Ahead Data.
       Stopping Collect Read-Ahead Data...
[ OK ] Stopped Monitoring of LVM2 mirrors, snapshots etc. using dmeventd or progress polling.
       Stopping LVM2 metadata daemon...
[ OK ] Stopped LVM2 metadata daemon.
[ *** ] A start job is running for Restore /run/initramfs (1min 39s / no limit)
```



```
Cisco Systems, Inc.  
Configuring and testing memory..
```

```
Cisco IMC  
MAC ADDR :
```

## Verify

Once all the services are started, **login to the user account** and **check the running version** to confirm the upgrade status.



```
Red Hat Enterprise Linux Server 7.3 (Maipo)
Kernel 3.10.0-693.11.6.el7.x86_64 on an x86_64

csp2100a login: admin
Password:
Welcome to the Cisco Cloud Services Platform CLI

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
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

admin connected from 127.0.0.1 using console on csp2100a
csp2100a# show version

Cisco Cloud Services Platform Software, Z100 Software (CSP-Z100), Version 2.2.5 Build:72
TAC Support: http://www.cisco.com/tac
Copyright (c) 2016 by Cisco Systems, Inc
Compiled Friday 30-March-2018 00:18

Linux csp2100a 3.10.0-693.11.6.el7.x86_64 #1 SMP Thu Dec 28 14:23:39 EST 2017 x86_64 x86_64 x86_64 GNU/Linux
Red Hat Enterprise Linux Server release 7.3 (Maipo)
CSP-Z100 uptime is 3 minutes, 58 seconds

Cisco UCSC-C220-M4S, Version C220M4.3.0.3c.0.0031170216, processor Intel(R) Xeon(R) CPU E5-2690 v3 @ 2.60GHz
48 CPUs with 58842916 kB / 65756840 kB of memory
L1d cache 32K, L1i cache 32K, L2 cache 256K, L3 cache 30720K

4 - Total Physical Interfaces (PNICs)
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32 - Total SR-IOV virtual function (VF) interfaces enabled
  0 - Number VF Interfaces currently in service use

csp2100a#
```

\*\*\*\*\* Upgrade Complete!! CSP 2100 boots up with 2.2.5 version !! \*\*\*\*\*