



Upgrade Guide for Cisco Remote PHY Shelf 7200 Software 1.x

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CONTENTS

PREFACE

Cisco Remote PHY Shelf 7200 and Cisco cBR Series Converged Broadband Routers Version Compatibility v

CHAPTER 1

Cisco Remote PHY Shelf 7200 Software 1.4 1

- Upgrading to Cisco Remote PHY Shelf 7200 Software 1.4 1
 - Upgrading Cisco Remote PHY Shelf 7200 and cBR-8 Router 1
 - Upgrading Cisco Remote PHY Shelf 7200 Only 6
 - Upgrading cBR-8 Router Only 9
- Downgrading from Cisco Remote PHY Shelf 7200 Software 1.4 11
 - Downgrading Cisco Remote PHY Shelf 7200 and cBR-8 Router 11
 - Downgrading Cisco Remote PHY Shelf 7200 Only 14
 - Downgrading cBR-8 Router Only 17

CHAPTER 2

Cisco Remote PHY Shelf 7200 Software 1.3 21

- Upgrading to Cisco Remote PHY Shelf 7200 Software 1.3 21
 - Upgrading Cisco Remote PHY Shelf 7200 and cBR-8 Router 21
 - Upgrading Cisco Remote PHY Shelf 7200 Only 25
 - Upgrading cBR-8 Router Only 28
- Downgrading from Cisco Remote PHY Shelf 7200 Software 1.3 30
 - Downgrading Cisco Remote PHY Shelf 7200 and cBR-8 Router 30
 - Downgrading Cisco Remote PHY Shelf 7200 Only 33
 - Downgrading cBR-8 Router Only 36

CHAPTER 3

Cisco Remote PHY Shelf 7200 Software 1.2 39

- Upgrading to Cisco Remote PHY Shelf 7200 Software 1.2 39
 - Upgrading Cisco Remote PHY Shelf 7200 and cBR-8 Router 39

Upgrading Cisco Remote PHY Shelf 7200 Only 42

Upgrading cBR-8 Router Only 45

Downgrading from Cisco Remote PHY Shelf 7200 Software 1.2 47

Downgrading Cisco Remote PHY Shelf 7200 and cBR-8 Router 47

Downgrading Cisco Remote PHY Shelf 7200 Only 50

Downgrading cBR-8 Router Only 53



Cisco Remote PHY Shelf 7200 and Cisco cBR Series Converged Broadband Routers Version Compatibility

Before proceeding with the upgrading or downgrading operation, be aware that the versions of Cisco cBR-8 router and Cisco Remote PHY Shelf 7200 must be compatible. The following table provides information on the compatible cBR-8 and Cisco Remote PHY Shelf 7200 versions:

Cisco Remote PHY Shelf 7200 Software Version	Compatible Cisco cBR-8 software Version
Cisco Remote PHY Shelf 7200 Software 1.4	Cisco IOS XE Amsterdam 17.9.1w
Cisco Remote PHY Shelf 7200 Software 1.3	Cisco IOS XE Amsterdam 17.3.1x
Cisco Remote PHY Shelf 7200 Software 1.2	Cisco IOS XE Gibraltar 16.10.1f
Cisco Remote PHY Shelf 7200 Software 1.1	Cisco IOS XE Gibraltar 16.10.1c



CHAPTER

1

Cisco Remote PHY Shelf 7200 Software 1.4

- [Upgrading to Cisco Remote PHY Shelf 7200 Software 1.4, on page 1](#)
- [Downgrading from Cisco Remote PHY Shelf 7200 Software 1.4, on page 11](#)

Upgrading to Cisco Remote PHY Shelf 7200 Software 1.4

Upgrading Cisco Remote PHY Shelf 7200 and cBR-8 Router

Before you begin

Before upgrading the system, make sure the following requirements are met:

- All eRPDs are online.
- Download two files from Cisco.com Software Center:
 - IOS XE Software Version 17.9.1w: [cbrrsup-universalk9.17.09.01w.SPA.bin](#)
 - Cisco Remote PHY Shelf 7200 Software 1.4: [HA-SHELF-V1-4.itb](#)
 - Cisco Remote PHY Shelf 7200 Firmware 1.4: [hashelf_firmware-V1.4_20221207104636.pkg](#)
- Console access for both SUPs are required.

**Note**

- Starting with Cisco IOS XE Cupertino 17.9.1w, cBR-8 images are greater than 2GB (2[^]31 bytes) for the first time. Platform changes are required to accommodate the larger file size. Because of this, a bridge release which is smaller than 2GB, but one that includes the fixes is required, before upgrading to Cisco IOS XE Cupertino 17.9.1w or later images.

Use a bridge release to upgrade to Cisco IOS XE Cupertino 17.9.1w from IOS releases prior to Cisco IOS XE Bengaluru 17.6.1y. You can use either Cisco IOS XE Bengaluru 17.6.1y or Cisco IOS XE Bengaluru 17.6.1z as a bridge release before upgrading to Cisco IOS XE Cupertino 17.9.1w and later images.

For more information about upgrading the cBR-8 router, see [Upgrading the Cisco cBR Series Converged Broadband Routers for Cisco IOS XE Bengaluru 17.6](#) and [Upgrading the Cisco cBR Series Converged Broadband Routers for Cisco IOS XE Cupertino 17.9](#).

- Before you can perform the upgrade to Cisco Remote PHY Shelf 7200 Software 1.4, ensure that the Cisco Remote PHY Shelf 7200 password is not the default password, which is *admin*. If the default password is *admin*, change the password. The Cisco Remote PHY Shelf 7200 linecards are disabled if the default password is not changed; it is enabled when the default password is changed.

Step 1

When upgrading to Cisco Remote PHY Shelf 7200 Software 1.4 from Cisco Remote PHY Shelf 7200 Software 1.2, you must upgrade the UBoot using the firmware package provided on the [Software Download](#) page. Follow the steps below:

- Copy Cisco RPHY Shelf 7200 1.4 Firmware package to HTTP or TFTP server that RPDs can reach to.
- Telnet to FCC to upgrade FCC UBoot.

```
upgrade hw-programmable fcc uboot tftp <tftp_server_ip> hashelf_firmware-V1.4_20221207104636.pkg
```

- Reboot FCC as required in previous step output.
- After bootup, check UBoot version.

```
HA-Shelf-FCC#show platform diag
Chassis type: HA-RPHY-CHASSIS
```

```
HA-RPHY-FAN-TRAY:
  State                : OK
  Software declared up time : 30 minutes, 54 seconds
  Primary UBoot         : 200821 *
  Golden UBoot          : 180508
  IOFPGA version        : a209 (Primary)
  EOBC version          : 1.01
```

- Note** Skip this step if you are upgrading to Cisco Remote PHY Shelf 7200 Software 1.4 from Cisco Remote PHY Shelf 7200 Software 1.3, as no firmware upgrade required in this case.

Step 2

Telnet to FCC and change the password, if the default password is *admin*, save configuration. (if the password is already changed, ignore this step)

```
HA-Shelf-FCC#login password cisco
Chassis login password configured successfully.
```



```
HA-Shelf-FCC#write
Building configuration...
Write startup configuration successfully.
```

Note Skip this step if you have already changed the password.

Step 3 Copy Cisco IOS XE Cupertino 17.9.1w package to bootflash: and stby-bootflash:.

```
copy <location>/cbrsup-universalk9.17.09.01w.SPA.bin bootflash:
copy <location>/cbrsup-universalk9.17.09.01w.SPA.bin stby-bootflash:
```

Step 4 Verify Cisco IOS XE Cupertino 17.9.1w package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:cbrsup-universalk9.17.09.01w.SPA.bin.SPA.bin
verify /md5 stby-bootflash:cbrsup-universalk9.17.09.01w.SPA.bin
```

Step 5 Backup current running config to bootflash:.

```
copy running-config bootflash:pre-upgrade.cfg
```

Step 6 Check system status prior to upgrade. Save the information to compare against the system status after upgrade. For the commands to use to check the status, see the **show** commands at the end of this section.

Step 7 Copy Cisco RPHY Shelf 7200 1.4 image package to HTTP or TFTP server that RPDs can reach to.

Note Cisco recommends using HTTP server to upgrade RPHY Shelf 7200.

Step 8 Verify current RPHY Shelf 7200 software version.

```
show cable rpd sw-version
```

Step 9 Upgrade one or more RPHY Shelf image to 1.4 release from cBR-8.

To upgrade one RPHY Shelf image using HTTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <http_server_ip> http
<HA_Shelf_V1.4_file_path>
```

To upgrade one RPHY Shelf image using TFTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <tftp_server_ip> tftp
<HA_Shelf_V1.4_file_path>
```

To retrieve the RPHY Shelf 7200 base MAC address, run the **show cable rpd group** command. The Group ID column displays the base mac address for the respective Cisco Remote PHY Shelf 7200 chassis. If there is a primary RPD in the RPD group, which means the M column in the command output displays Y as shown below, you can upgrade the image of the RPD group.

```
Router#show cable rpd group
Load for five secs: 4%/1%; one minute: 6%; five minutes: 6%
No time source, *09:05:11.393 CST Mon Dec 14 2022
Codes: M-Master
MAC Address      IP Address      I/F      State  Group Id      Slot  M Name
a0f8.496f.f566  120.102.22.198 Te6/1/2  online 0027.900a.4c1a 1      N rphy61
```

```

a0f8.496f.f5f0 120.102.22.199 Te6/1/2 online 0027.900a.4c1a 2 Y rphy62
7abd.44a1.0083 120.102.22.194 Te7/1/7 online 7abd.44a1.0000 3 N erpd33
7abd.44a1.0082 120.102.22.193 Te7/1/7 online 7abd.44a1.0000 3 N erpd32
7abd.44a1.0085 120.102.22.196 Te7/1/7 online 7abd.44a1.0000 3 Y erpd35
7abd.44a1.0084 120.102.22.195 Te7/1/7 online 7abd.44a1.0000 3 N erpd34
7abd.44a1.0081 120.102.22.192 Te7/1/7 online 7abd.44a1.0000 3 N erpd31
badb.ad17.0c20 120.102.22.102 Te6/1/7 online badb.ad17.0c00 0 N f02-00
badb.ad17.0c21 120.102.22.101 Te6/1/7 online badb.ad17.0c00 0 N f02-01
badb.ad17.0c24 120.102.22.106 Te6/1/7 online badb.ad17.0c00 0 N f02-04
badb.ad17.0c22 120.102.22.104 Te6/1/7 online badb.ad17.0c00 0 N f02-02
badb.ad17.0c23 120.102.22.105 Te6/1/7 online badb.ad17.0c00 0 Y f02-03
badb.ad17.0c25 120.102.22.109 Te6/1/7 online badb.ad17.0c00 0 N f02-05

```

To upgrade all RPHY Shelf images using HTTP server, run this command

```
cable rpd group all upgrade <http_server_ip> http <HA_Shelf_V1.4_file_path>
```

To upgrade all RPHY Shelf images using TFTP server, run this command

```
cable rpd group all upgrade <tftp_server_ip> tftp <HA_Shelf_V1.4_file_path>
```

Step 10 Verify one or more RPHY Shelf 7200 chassis status.

To verify one RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group <chassis base mac> upgrade status
```

To verify all RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group all upgrade status
```

Step 11 Configure the chassis to boot the system with Cisco IOS XE Cupertino 17.9.1w image and save running-configuration.

```

Configure terminal
no boot system
boot system bootflash:cbrsup-universalk9.17.09.01w.SPA.bin
config-register 0x2102
end
copy running-config startup-config

```

Step 12 Reload and bring up the cBR-8 router.

```
Reload
```

Step 13 Adjust RPHY Shelf 7200 max-carrier and type, re-apply rpd-ds base-power for each RPHY Shelf 7200, save and backup current running-config.

```

cBR8(config)#cable rpd shelf-1-1
cBR8(config-rpd)#rpd-ds 0 base-power ?
<20-22> Base Channel Power Value in dBmV

cBR8(config-rpd)#type shelf
cBR8(config-rpd)#rpd-ds 0 max-carrier 16
cBR8(config-rpd)#rpd-ds 0 base-power ?
<37-46> Base Channel Power Value in dBmV

cBR8(config-rpd)#rpd-ds 0 base-power x //depends on customer real env
cBR8(config-rpd)#end
cBR8#copy running-config startup-config
cBR8#copy running-config bootflash:post-upgrade.cfg

```

Step 14

To check if cBR-8 router is successfully upgraded to Cisco IOS XE Cupertino 17.9.1w and to check if all RPHY Shelf 7200 chassis have been upgraded to new version 1.4 and come online successfully you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- **select erpd slot *slot_id* index *index_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **select linecard slot *slot_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8
- **show environment all | alarms**— Supported on RPHY Shelf 7200
- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Upgrading Cisco Remote PHY Shelf 7200 Only

Before you begin

Before upgrading the system, make sure the following requirements are met:

- All eRPDs are online.
- Download new image file from Cisco.com Software Center:
 - Cisco Remote PHY Shelf 7200 Software 1.4: [HA-SHELF-V1-4.itb](#)
 - Cisco Remote PHY Shelf 7200 Firmware 1.4: [hashelf_firmware-V1.4_20221207104636.pkg](#)



Note

- For more information about upgrading the cBR-8 router, see [Upgrading the Cisco cBR Series Converged Broadband Routers for Cisco IOS XE Cupertino 17.9](#).
- Cisco recommends that to upgrade only Cisco Remote PHY Shelf 7200, you must run all commands on the Cisco Remote PHY Shelf 7200.
- Before you can perform the upgrade to Cisco Remote PHY Shelf 7200 Software 1.4, ensure that the Cisco Remote PHY Shelf 7200 password is not the default password, which is *admin*. If the default password is *admin*, change the password. The Cisco Remote PHY Shelf 7200 linecards are disabled if the default password is not changed; it is enabled when the default password is changed.

Step 1

When upgrading to Cisco Remote PHY Shelf 7200 Software 1.4 from Cisco Remote PHY Shelf 7200 Software 1.2, you must upgrade the UBoot using the firmware package provided on the [Software Download](#) page. Follow the steps below:

- Copy Cisco RPHY Shelf 7200 1.4 Firmware package to HTTP or TFTP server that RPDs can reach to.
- Telnet to FCC to upgrade FCC UBoot.

```
upgrade hw-programmable fcc uboot tftp <tftp_server_ip> hashelf_firmware-V1.4_20221207104636.pkg
```

- Reboot FCC as required in previous step output.
- After bootup, check UBoot version.

```
HA-Shelf-FCC#show platform diag
Chassis type: HA-RPHY-CHASSIS
```

```
HA-RPHY-FAN-TRAY:
```

```
State : OK
Software declared up time : 30 minutes, 54 seconds
Primary UBoot : 200821 *
Golden UBoot : 180508
IOFPGA version : a209 (Primary)
EOBC version : 1.01
```

- Note** Skip this step if you are upgrading to Cisco Remote PHY Shelf 7200 Software 1.4 from Cisco Remote PHY Shelf 7200 Software 1.3, as no firmware upgrade required in this case.

Step 2

Copy the Cisco RPHY Shelf 7200 V1.4 image package to HTTP or TFTP server that RPDs can reach to.

Note Cisco recommends using HTTP server to upgrade RPHY Shelf 7200.

Step 3 Verify current RPHY Shelf 7200 software version.

```
show cable rpd sw-version
```

Step 4 Upgrade one or more RPHY Shelf image to 1.4 release from cBR-8.

To upgrade one RPHY Shelf image using HTTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <http_server_ip> http
<HA_Shelf_V1.4_file_path>
```

To upgrade one RPHY Shelf image using TFTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <tftp_server_ip> tftp
<HA_Shelf_V1.4_file_path>
```

To retrieve the RPHY Shelf 7200 base MAC address, run the **show cable rpd group** command. The Group ID column displays the base mac address for the respective HA Shelf 7200 chassis. If there is a primary RPD in the RPD group, which means the M column in the command output displays Y as shown below, you can upgrade the image of the RPD group.

```
Router#show cable rpd group
Load for five secs: 4%/1%; one minute: 6%; five minutes: 6%
No time source, *09:05:11.393 CST Mon Jun 3 2019
Codes: M-Master
MAC Address      IP Address      I/F      State  Group Id      Slot  M Name
a0f8.496f.f566  120.102.22.198 Te6/1/2  online 0027.900a.4c1a 1      N rphy61
a0f8.496f.f5f0  120.102.22.199 Te6/1/2  online 0027.900a.4c1a 2      Y rphy62
7abd.44a1.0083  120.102.22.194 Te7/1/7  online 7abd.44a1.0000 3      N erpd33
7abd.44a1.0082  120.102.22.193 Te7/1/7  online 7abd.44a1.0000 3      N erpd32
7abd.44a1.0085  120.102.22.196 Te7/1/7  online 7abd.44a1.0000 3      Y erpd35
7abd.44a1.0084  120.102.22.195 Te7/1/7  online 7abd.44a1.0000 3      N erpd34
7abd.44a1.0081  120.102.22.192 Te7/1/7  online 7abd.44a1.0000 3      N erpd31
badb.ad17.0c20  120.102.22.102 Te6/1/7  online badb.ad17.0c00 0      N f02-00
badb.ad17.0c21  120.102.22.101 Te6/1/7  online badb.ad17.0c00 0      N f02-01
badb.ad17.0c24  120.102.22.106 Te6/1/7  online badb.ad17.0c00 0      N f02-04
badb.ad17.0c22  120.102.22.104 Te6/1/7  online badb.ad17.0c00 0      N f02-02
badb.ad17.0c23  120.102.22.105 Te6/1/7  online badb.ad17.0c00 0      Y f02-03
badb.ad17.0c25  120.102.22.109 Te6/1/7  online badb.ad17.0c00 0      N f02-05
```

To upgrade all RPHY Shelf images using HTTP server, run this command

```
cable rpd group all upgrade <http_server_ip> http <HA_Shelf_V1.4_file_path>
```

To upgrade all RPHY Shelf images using TFTP server, run this command

```
cable rpd group all upgrade <tftp_server_ip> tftp <HA_Shelf_V1.4_file_path>
```

Step 5 Verify one or more RPHY Shelf 7200 chassis status.

To verify one RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group <chassis base mac> upgrade status
```

To verify all RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group all upgrade status
```

Step 6 To check if all RPHY Shelf 7200 chassis have been upgraded to new version 1.4 and come online successfully you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- **select erpd slot *slot_id* index *index_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **select linecard slot *slot_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8
- **show environment all | alarms**— Supported on RPHY Shelf 7200
- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Upgrading cBR-8 Router Only

Before you begin

Before upgrading the system, make sure the following requirements are met:

- All eRPDs are online.
- Download new image file from Cisco.com Software Center:
 - IOS XE Software Version 17.9.1w: [cbrsup-universalk9.17.09.01w.SPA.bin](#)
- Console access for both SUPs are required.



Note Starting with Cisco IOS XE Cupertino 17.9.1w, cBR-8 images are greater than 2GB (2[^]31 bytes) for the first time. Platform changes are required to accommodate the larger file size. Because of this, a bridge release which is smaller than 2GB, but one that includes the fixes is required, before upgrading to Cisco IOS XE Cupertino 17.9.1w or later images.

Use a bridge release to upgrade to Cisco IOS XE Cupertino 17.9.1w from IOS releases prior to Cisco IOS XE Bengaluru 17.6.1y. You can use either Cisco IOS XE Bengaluru 17.6.1y or Cisco IOS XE Bengaluru 17.6.1z as a bridge release before upgrading to Cisco IOS XE Cupertino 17.9.1w and later images.

For more information about upgrading the cBR-8 router, see [Upgrading the Cisco cBR Series Converged Broadband Routers for Cisco IOS XE Bengaluru 17.6](#) and [Upgrading the Cisco cBR Series Converged Broadband Routers for Cisco IOS XE Cupertino 17.9](#).

Step 1 Copy Cisco IOS XE Cupertino 17.9.1w package to bootflash: and stby-bootflash:

```
copy <location>/cbrsup-universalk9.17.09.01w.SPA.bin bootflash:
copy <location>/cbrsup-universalk9.17.09.01w.SPA.bin stby-bootflash:
```

Step 2 Verify Cisco IOS XE Cupertino 17.9.1w package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:cbrsup-universalk9.17.09.01w.SPA.bin
verify /md5 stby-bootflash:cbrsup-universalk9.17.09.01w.SPA.bin
```

Step 3 Backup current running config to bootflash:

```
copy running-config bootflash:pre-upgrade.cfg
```

Step 4 Check system status prior to upgrade. Save the information to compare against the system status after upgrade. For the commands to use to check the status, see the **show** commands at the end of this section.

Step 5 Configure the chassis to boot the system with Cisco IOS XE Cupertino 17.9.1w image and save running-configuration.

```
Configure terminal
```

```
no boot system
boot system bootflash:cbrsup-universalk9.17.09.01w.SPA.bin
config-register 0x2102
end
copy running-config startup-config
```

Step 6 Reload and bring up the cBR-8 router.

```
Reload
```

Step 7 Adjust RPD max-carrier and type, re-apply rpd-ds base-power for each RPD, save and backup current running-config.

```
cBR8(config)#cable rpd shelf-1-1
cBR8(config-rpd)#rpd-ds 0 base-power ?
<20-22> Base Channel Power Value in dBmV

cBR8(config-rpd)#type shelf
cBR8(config-rpd)#rpd-ds 0 max-carrier 16
cBR8(config-rpd)#rpd-ds 0 base-power ?
<37-46> Base Channel Power Value in dBmV

cBR8(config-rpd)#rpd-ds 0 base-power x //depends on customer real env
cBR8(config-rpd)#end
cBR8#copy running-config startup-config
cBR8#copy running-config bootflash:post-upgrade.cfg
```

Step 8 To check if cBR-8 router is successfully upgraded to Cisco IOS XE Cupertino 17.9.1w and if you optionally wish to check the RPHY Shelf 7200 chassis version and check if it has come online successfully you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- select erpd slot *slot_id* index *index_id* — RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- select linecard slot *slot_id* — RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version** — Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform** — Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag** — Supported on cBR-8 and RPHY Shelf 7200
- **show environment** — Supported on cBR-8
- **show environment all | alarms** — Supported on RPHY Shelf 7200
- **show environment power** — Supported on cBR-8

- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Downgrading from Cisco Remote PHY Shelf 7200 Software 1.4

Downgrading Cisco Remote PHY Shelf 7200 and cBR-8 Router

Before you begin

Before downgrading the system, make sure the following requirements are met:

- All eRPDs are online.
- Download two files from the following Cisco.com Software Center URL:
 - IOS XE Software: <https://software.cisco.com/download/home/286283913/type>
 - IOS XE Software Version 17.3.1x: **cbrsup-universalk9.17.03.01x.SPA.bin**
 - IOS XE Software Version 16.10.1f: **cbrsup-universalk9.16.10.01f.SPA.bin**
 - Cisco Remote PHY Shelf 7200 software: <https://software.cisco.com/download/home/286321242/type>
 - Cisco Remote PHY Shelf 7200 Software 1.3: **HA-SHELF-V1-3.itb**
 - Cisco Remote PHY Shelf 7200 Software 1.2: **HA-SHELF-V1-2.itb**
- Console access for both SUPs are required.



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_17_3.html.

Step 1 Copy Cisco IOS XE software package to bootflash: and stby-bootflash:.

```
copy <location>/<ios_xe_software_file> bootflash:
copy <location>/<ios_xe_software_file> stby-bootflash:
```

Step 2 Verify Cisco IOS XE software package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:<ios_xe_software_file>
verify /md5 stby-bootflash:<ios_xe_software_file>
```

Step 3 Backup the current running config to bootflash:.

```
copy running-config bootflash:pre-upgrade.cfg
```

Step 4 Check system status prior to downgrade. Save the information to compare against the system status after downgrade. For the commands to use to check the status, see the **show** commands at the end of this section.

Step 5 Copy the Cisco RPHY Shelf 7200 software image package to HTTP or TFTP server that RPHY Shelf 7200 can reach to.

Step 6 Verify current RPHY Shelf 7200 software version.

```
show cable rpd sw-version
```

Step 7 Downgrade one or more RPHY Shelf images from cBR-8.

To downgrade one RPHY Shelf image using HTTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <http_server_ip> http
<HA_Shelf_file_path>
```

To downgrade one RPHY Shelf image using TFTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <tftp_server_ip> tftp
<HA_Shelf_file_path>
```

To retrieve the RPHY Shelf 7200 base mac address, run the **show cable rpd group** command. The Group ID column displays the base mac address for the respective HA Shelf 7200 chassis. If there is a primary RPD in the RPD group, which means the M column in the command output displays Y as shown below, you can upgrade the image of the RPD group.

```
Router#show cable rpd group
Load for five secs: 4%/1%; one minute: 6%; five minutes: 6%
No time source, *09:05:11.393 CST Mon Jun 3 2019
Codes: M-Master
MAC Address      IP Address      I/F      State  Group Id      Slot  M Name
a0f8.496f.f566  120.102.22.198 Te6/1/2  online 0027.900a.4c1a 1      N rphy61
```

```

a0f8.496f.f5f0 120.102.22.199 Te6/1/2 online 0027.900a.4c1a 2 Y rphy62
7abd.44a1.0083 120.102.22.194 Te7/1/7 online 7abd.44a1.0000 3 N erpd33
7abd.44a1.0082 120.102.22.193 Te7/1/7 online 7abd.44a1.0000 3 N erpd32
7abd.44a1.0085 120.102.22.196 Te7/1/7 online 7abd.44a1.0000 3 Y erpd35
7abd.44a1.0084 120.102.22.195 Te7/1/7 online 7abd.44a1.0000 3 N erpd34
7abd.44a1.0081 120.102.22.192 Te7/1/7 online 7abd.44a1.0000 3 N erpd31
badb.ad17.0c20 120.102.22.102 Te6/1/7 online badb.ad17.0c00 0 N f02-00
badb.ad17.0c21 120.102.22.101 Te6/1/7 online badb.ad17.0c00 0 N f02-01
badb.ad17.0c24 120.102.22.106 Te6/1/7 online badb.ad17.0c00 0 N f02-04
badb.ad17.0c22 120.102.22.104 Te6/1/7 online badb.ad17.0c00 0 N f02-02
badb.ad17.0c23 120.102.22.105 Te6/1/7 online badb.ad17.0c00 0 Y f02-03
badb.ad17.0c25 120.102.22.109 Te6/1/7 online badb.ad17.0c00 0 N f02-05

```

To downgrade all RPHY Shelf images using HTTP server, run this command

```
cable rpd group all upgrade <http_server_ip> http <HA_Shelf_file_path>
```

To downgrade all RPHY Shelf images using TFTP server, run this command

```
cable rpd group all upgrade <tftp_server_ip> tftp <HA_Shelf_file_path>
```

Step 8 Verify one or more RPHY Shelf 7200 chassis status.

To verify one RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group <chassis base mac> upgrade status
```

To verify all RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group all upgrade status
```

Step 9 Configure the chassis to boot the system with target Cisco IOS XE image and save running-configuration.

```

Configure terminal
no boot system
boot system bootflash:<ios_xe_software_file>
config-register 0x2102
end
copy running-config startup-config

```

Step 10 Reload and bring up the cBR-8 router.

```
Reload
```

Step 11 To check if all RPHY Shelf 7200 chassis have been downgraded to the target version and come online successfully, you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been downgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- select erpd slot *slot_id* index *index_id* — RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.

- `select linecard slot slot_id`— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- `show version`— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- `show platform`— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- `show platform diag`— Supported on cBR-8 and RPHY Shelf 7200
- `show environment`— Supported on cBR-8
- `show environment all | alarms`— Supported on RPHY Shelf 7200
- `show environment power`— Supported on cBR-8
- `show platform hardware slot P <0-5> mcu status`— Supported on cBR-8
- `show facility-alarm status`— Supported on cBR-8
- `show redundancy`— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- `show redundancy line card all`— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- `show ip ospf neighbor`— Supported on cBR-8
- `show cable modem voice`— Supported on cBR-8
- `show cable calls`— Supported on cBR-8
- `show cable licenses all`— Supported on cBR-8
- `show inventory`— Supported on cBR-8
- `show log`— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- `show cable rpd`— Supported on cBR-8
- `show cable modem summary total`— Supported on cBR-8
- `show cable rpd lcha`— Supported on cBR-8
- `show running`— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- `show tech`— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Downgrading Cisco Remote PHY Shelf 7200 Only

Before you begin

Before downgrading the system, make sure the following requirements are met:

- All eRPDs are in `init(gcp)` state.
- Download new image file from the following Cisco.com Software Center URL:
<https://software.cisco.com/download/home/286321242/type>
 - Cisco Remote PHY Shelf 7200 Software 1.3: **HA-SHELF-V1-3.itb**
 - Cisco Remote PHY Shelf 7200 Software 1.2: **HA-SHELF-V1-2.itb**



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_17_3.html.

Step 1 Copy the target Cisco RPHY Shelf 7200 software image package to HTTP or TFTP server that RPHY Shelf 7200 can reach to.

Note Cisco recommends using HTTP server to upgrade RPHY Shelf 7200.

Step 2 Verify current RPHY Shelf 7200 software version.

```
show cable rpd sw-version
```

Step 3 Downgrade one or more RPHY Shelf image from cBR-8.

To downgrade one RPHY Shelf image using HTTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <http_server_ip> http
<HA_Shelf_file_path>
```

To downgrade one RPHY Shelf image using TFTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <tftp_server_ip> tftp
<HA_Shelf_file_path>
```

To retrieve the RPHY Shelf 7200 base mac address, run the **show cable rpd group** command. The Group ID column displays the base mac address for the respective HA Shelf 7200 chassis. If there is a primary RPD in the RPD group, which means the M column in the command output displays Y as shown below, you can upgrade the image of the RPD group.

```
Router#show cable rpd group
Load for five secs: 4%/1%; one minute: 6%; five minutes: 6%
No time source, *09:05:11.393 CST Mon Jun 3 2019
Codes: M-Master
MAC Address      IP Address      I/F      State  Group Id      Slot  M  Name
a0f8.496f.f566  120.102.22.198 Te6/1/2  online 0027.900a.4c1a 1     N  rphy61
a0f8.496f.f5f0  120.102.22.199 Te6/1/2  online 0027.900a.4c1a 2     Y  rphy62
7abd.44a1.0083  120.102.22.194 Te7/1/7  online 7abd.44a1.0000 3     N  erpd33
7abd.44a1.0082  120.102.22.193 Te7/1/7  online 7abd.44a1.0000 3     N  erpd32
7abd.44a1.0085  120.102.22.196 Te7/1/7  online 7abd.44a1.0000 3     Y  erpd35
7abd.44a1.0084  120.102.22.195 Te7/1/7  online 7abd.44a1.0000 3     N  erpd34
7abd.44a1.0081  120.102.22.192 Te7/1/7  online 7abd.44a1.0000 3     N  erpd31
badb.ad17.0c20  120.102.22.102 Te6/1/7  online badb.ad17.0c00 0     N  f02-00
badb.ad17.0c21  120.102.22.101 Te6/1/7  online badb.ad17.0c00 0     N  f02-01
badb.ad17.0c24  120.102.22.106 Te6/1/7  online badb.ad17.0c00 0     N  f02-04
badb.ad17.0c22  120.102.22.104 Te6/1/7  online badb.ad17.0c00 0     N  f02-02
badb.ad17.0c23  120.102.22.105 Te6/1/7  online badb.ad17.0c00 0     Y  f02-03
badb.ad17.0c25  120.102.22.109 Te6/1/7  online badb.ad17.0c00 0     N  f02-05
```

To downgrade all RPHY Shelf images using HTTP server, run this command

```
cable rpd group all upgrade <http_server_ip> http <HA_Shelf_file_path>
```

To downgrade all RPHY Shelf images using TFTP server, run this command

```
cable rpd group all upgrade <tftp_server_ip> tftp <HA_Shelf_file_path>
```

Step 4 Verify one or more RPHY Shelf 7200 chassis status.

To verify one RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group <chassis base mac> upgrade status
```

To verify all RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group all upgrade status
```

Step 5 To check if all RPHY Shelf 7200 chassis have been downgraded to target version and come online successfully, you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- **select erpd slot *slot_id* index *index_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **select linecard slot *slot_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8
- **show environment all | alarms**— Supported on RPHY Shelf 7200
- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Downgrading cBR-8 Router Only

Before you begin

Before downgrading the system, make sure the following requirements are met:

- All eRPDs are in `init(gcp)` state.
- Download new image file from the following Cisco.com Software Center URL:
<https://software.cisco.com/download/home/286283913/type>
 - IOS XE Software Version 17.3.1x: **cbrsup-universalk9.17.03.01x.SPA.bin**
 - IOS XE Software Version 16.10.1f: **cbrsup-universalk9.16.10.01f.SPA.bin**
- Console access for both SUPs are required.



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_17_3.html.

Step 1 Copy Cisco IOS XE software package to `bootflash:` and `stby-bootflash:`.

```
copy <location>/<ios_xe_software_file> bootflash:
copy <location>/<ios_xe_software_file> stby-bootflash:
```

Step 2 Verify Cisco IOS XE software package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:<ios_xe_software_file>
verify /md5 stby-bootflash:<ios_xe_software_file>
```

Step 3 Backup current running config to `bootflash:`.

```
copy running-config bootflash:pre-upgrade.cfg
```

Step 4 Check system status prior to downgrade. Save the information to compare against the system status after upgrade. For the commands to use to check the status, see the **show** commands at the end of this section.

Step 5 Configure the chassis to boot the system with target Cisco IOS XE image and save running-configuration.

```
Configure terminal
no boot system
boot system bootflash:<ios_xe_software_file>
config-register 0x2102
end
copy running-config startup-config
```

Step 6 Reload and bring up the cBR-8 router.

```
Reload
```

Step 7 To check if all RPHY Shelf 7200 chassis are downgraded and come online successfully, you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- select erpd slot *slot_id* index *index_id*— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- select linecard slot *slot_id*— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8
- **show environment all | alarms**— Supported on RPHY Shelf 7200
- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8

- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs



CHAPTER 2

Cisco Remote PHY Shelf 7200 Software 1.3

- [Upgrading to Cisco Remote PHY Shelf 7200 Software 1.3, on page 21](#)
- [Downgrading from Cisco Remote PHY Shelf 7200 Software 1.3, on page 30](#)

Upgrading to Cisco Remote PHY Shelf 7200 Software 1.3

Upgrading Cisco Remote PHY Shelf 7200 and cBR-8 Router

Before you begin

Before upgrading the system, make sure the following requirements are met:

- All eRPDs are online.
- Download two files from Cisco.com Software Center:
 - IOS XE Software Version 17.3.1x: [cbrsup-universalk9.17.03.01x.SPA.bin](#)
 - Cisco Remote PHY Shelf 7200 Software 1.3: [HA-SHELF-V1-3.itb](#)
 - Cisco Remote PHY Shelf 7200 Firmware 1.3: [hashelf_firmware-V1.3_20201215093439.pkg](#)
- Console access for both SUPs are required.



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_17_3.html.

Step 1 Copy Cisco RPHY Shelf 7200 1.3 Firmware package to HTTP or TFTP server that RPDs can reach to.

Step 2 Telnet to FCC to upgrade FCC UBoot.

```
upgrade hw-programmable fcc uboot tftp <tftp_server_ip> hashelf_firmware-V1.3_20201215093439.pkg
```

Step 3 Reboot FCC as required in previous step output.

Step 4 After bootup, check UBoot version.

```
HA-Shelf-FCC#show platform diag
Chassis type: HA-RPHY-CHASSIS

HA-RPHY-FAN-TRAY:
  State                : OK
  Software declared up time : 30 minutes, 54 seconds
  Primary UBoot         : 200821 *
  Golden UBoot          : 180508
  IOFPGA version        : a209 (Primary)
  EOBC version          : 1.01
```

Step 5 Copy Cisco IOS XE Amsterdam 17.3.1x package to bootflash: and stby-bootflash:.

```
copy <location>/cbrsup-universalk9.17.03.01x.SPA.bin bootflash:
copy <location>/cbrsup-universalk9.17.03.01x.SPA.bin stby-bootflash:
```

Step 6 Verify Cisco IOS XE Amsterdam 17.3.1x package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:cbrsup-universalk9.17.03.01x.SPA.bin.SPA.bin
verify /md5 stby-bootflash:cbrsup-universalk9.17.03.01x.SPA.bin
```

Step 7 Backup current running config to bootflash:.

```
copy running-config bootflash:pre-upgrade.cfg
```

Step 8 Check system status prior to upgrade. Save the information to compare against the system status after upgrade. For the commands to use to check the status, see the **show** commands at the end of this section.

Note Cisco recommends using HTTP server to upgrade RPHY Shelf 7200.

Step 9 Copy Cisco RPHY Shelf 7200 1.3 image package to HTTP or TFTP server that RPDs can reach to.

Step 10 Verify current RPHY Shelf 7200 software version.

```
show cable rpd sw-version
```

Step 11 Upgrade one or more RPHY Shelf image to 1.3 release from cBR-8.

To upgrade one RPHY Shelf image using HTTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <http_server_ip> http
<HA_Shelf_v1.3_file_path>
```

To upgrade one RPHY Shelf image using TFTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <tftp_server_ip> tftp
<HA_Shelf_v1.3_file_path>
```

To retrieve the RPHY Shelf 7200 base MAC address, run the **show cable rpd group** command. The Group ID column displays the base mac address for the respective HA Shelf 7200 chassis. If there is a primary RPD in the RPD group, which means the M column in the command output displays Y as shown below, you can upgrade the image of the RPD group.

```

Router#show cable rpd group
Load for five secs: 4%/1%; one minute: 6%; five minutes: 6%
No time source, *09:05:11.393 CST Mon Jun 3 2019
Codes: M-Master
MAC Address      IP Address      I/F      State  Group Id      Slot  M Name
a0f8.496f.f566  120.102.22.198 Te6/1/2  online 0027.900a.4c1a 1      N rphy61
a0f8.496f.f5f0  120.102.22.199 Te6/1/2  online 0027.900a.4c1a 2      Y rphy62
7abd.44a1.0083  120.102.22.194 Te7/1/7  online 7abd.44a1.0000 3      N erpd33
7abd.44a1.0082  120.102.22.193 Te7/1/7  online 7abd.44a1.0000 3      N erpd32
7abd.44a1.0085  120.102.22.196 Te7/1/7  online 7abd.44a1.0000 3      Y erpd35
7abd.44a1.0084  120.102.22.195 Te7/1/7  online 7abd.44a1.0000 3      N erpd34
7abd.44a1.0081  120.102.22.192 Te7/1/7  online 7abd.44a1.0000 3      N erpd31
badb.ad17.0c20  120.102.22.102 Te6/1/7  online badb.ad17.0c00 0      N f02-00
badb.ad17.0c21  120.102.22.101 Te6/1/7  online badb.ad17.0c00 0      N f02-01
badb.ad17.0c24  120.102.22.106 Te6/1/7  online badb.ad17.0c00 0      N f02-04
badb.ad17.0c22  120.102.22.104 Te6/1/7  online badb.ad17.0c00 0      N f02-02
badb.ad17.0c23  120.102.22.105 Te6/1/7  online badb.ad17.0c00 0      Y f02-03
badb.ad17.0c25  120.102.22.109 Te6/1/7  online badb.ad17.0c00 0      N f02-05

```

To upgrade all RPHY Shelf images using HTTP server, run this command

```
cable rpd group all upgrade <http_server_ip> http <HA_Shelf_V1.3_file_path>
```

To upgrade all RPHY Shelf images using TFTP server, run this command

```
cable rpd group all upgrade <tftp_server_ip> tftp <HA_Shelf_V1.3_file_path>
```

Step 12 Verify one or more RPHY Shelf 7200 chassis status.

To verify one RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group <chassis base mac> upgrade status
```

To verify all RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group all upgrade status
```

Step 13 Configure the chassis to boot the system with Cisco IOS XE Amsterdam 17.3.1x image and save running-configuration.

```

Configure terminal
no boot system
boot system bootflash:cbrsup-universalk9.17.03.01x.SPA.bin
config-register 0x2102
end
copy running-config startup-config

```

Step 14 Reload and bring up the cBR-8 router.

```
Reload
```

Step 15 Adjust RPHY Shelf 7200 max-carrier and type, re-apply rpd-ds base-power for each RPHY Shelf 7200, save and backup current running-config.

```

cBR8(config)#cable rpd shelf-1-1
cBR8(config-rpd)#rpd-ds 0 base-power ?
  <20-22> Base Channel Power Value in dBmV

cBR8(config-rpd)#type shelf
cBR8(config-rpd)#rpd-ds 0 max-carrier 16
cBR8(config-rpd)#rpd-ds 0 base-power ?
  <37-46> Base Channel Power Value in dBmV

```

```
cBR8(config-rpd)#rpd-ds 0 base-power x //depends on customer real env
cBR8(config-rpd)#end
cBR8#copy running-config startup-config
cBR8#copy running-config bootflash:post-upgrade.cfg
```

Step 16 To check if all RPHY Shelf 7200 chassis have been upgraded to new version 1.3 and come online successfully you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- **select erpd slot *slot_id* index *index_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **select linecard slot *slot_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8
- **show environment all | alarms**— Supported on RPHY Shelf 7200
- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8

- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Upgrading Cisco Remote PHY Shelf 7200 Only

Before you begin

Before upgrading the system, make sure the following requirements are met:

- All eRPDs are in init(gcp), init(clock), or online state.
- Download new image file from Cisco.com Software Center:
 - Cisco Remote PHY Shelf 7200 Software 1.3: [HA-SHELF-V1-3.itb](#)
 - Cisco Remote PHY Shelf 7200 Firmware 1.3: [hashelf_firmware-V1.3_20201215093439.pkg](#)



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_17_3.html.



Note Cisco recommends that to upgrade only Cisco Remote PHY Shelf 7200, you must run all commands on the Cisco Remote PHY Shelf 7200.

- Step 1** Copy Cisco RPHY Shelf 7200 1.3 Firmware package to HTTP or TFTP server that RPDs can reach to.
- Step 2** Telnet to FCC to upgrade FCC UBoot.

```
upgrade hw-programmable fcc uboot tftp <tftp_server_ip> hashelf_firmware-V1.3_20201215093439.pkg
```

- Step 3** Reboot FCC as required in previous step output.
- Step 4** After bootup, check UBoot version.

```
HA-Shelf-FCC#show platform diag
Chassis type: HA-RPHY-CHASSIS

HA-RPHY-FAN-TRAY:
  State                : OK
  Software declared up time : 30 minutes, 54 seconds
  Primary UBoot         : 200821 *
  Golden UBoot          : 180508
  IOFPGA version        : a209 (Primary)
  EOBC version          : 1.01
```

- Step 5** Copy the Cisco RPHY Shelf 7200 V1.3 image package to HTTP or TFTP server that RPDs can reach to.
- Note** Cisco recommends using HTTP server to upgrade RPHY Shelf 7200.

Step 6 Verify current RPHY Shelf 7200 software version.

```
show cable rpd sw-version
```

Step 7 Upgrade one or more RPHY Shelf image to 1.3 release from cBR-8.

To upgrade one RPHY Shelf image using HTTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <http_server_ip> http
<HA_Shelf_V1.3_file_path>
```

To upgrade one RPHY Shelf image using TFTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <tftp_server_ip> tftp
<HA_Shelf_V1.3_file_path>
```

To retrieve the RPHY Shelf 7200 base MAC address, run the **show cable rpd group** command. The Group ID column displays the base mac address for the respective HA Shelf 7200 chassis. If there is a primary RPD in the RPD group, which means the M column in the command output displays Y as shown below, you can upgrade the image of the RPD group.

```
Router#show cable rpd group
Load for five secs: 4%/1%; one minute: 6%; five minutes: 6%
No time source, *09:05:11.393 CST Mon Jun 3 2019
Codes: M-Master
MAC Address      IP Address      I/F      State  Group Id      Slot  M Name
a0f8.496f.f566  120.102.22.198 Te6/1/2  online 0027.900a.4c1a 1      N rphy61
a0f8.496f.f5f0  120.102.22.199 Te6/1/2  online 0027.900a.4c1a 2      Y rphy62
7abd.44a1.0083  120.102.22.194 Te7/1/7  online 7abd.44a1.0000 3      N erpd33
7abd.44a1.0082  120.102.22.193 Te7/1/7  online 7abd.44a1.0000 3      N erpd32
7abd.44a1.0085  120.102.22.196 Te7/1/7  online 7abd.44a1.0000 3      Y erpd35
7abd.44a1.0084  120.102.22.195 Te7/1/7  online 7abd.44a1.0000 3      N erpd34
7abd.44a1.0081  120.102.22.192 Te7/1/7  online 7abd.44a1.0000 3      N erpd31
badb.ad17.0c20  120.102.22.102 Te6/1/7  online badb.ad17.0c00 0      N f02-00
badb.ad17.0c21  120.102.22.101 Te6/1/7  online badb.ad17.0c00 0      N f02-01
badb.ad17.0c24  120.102.22.106 Te6/1/7  online badb.ad17.0c00 0      N f02-04
badb.ad17.0c22  120.102.22.104 Te6/1/7  online badb.ad17.0c00 0      N f02-02
badb.ad17.0c23  120.102.22.105 Te6/1/7  online badb.ad17.0c00 0      Y f02-03
badb.ad17.0c25  120.102.22.109 Te6/1/7  online badb.ad17.0c00 0      N f02-05
```

To upgrade all RPHY Shelf images using HTTP server, run this command

```
cable rpd group all upgrade <http_server_ip> http <HA_Shelf_V1.3_file_path>
```

To upgrade all RPHY Shelf images using TFTP server, run this command

```
cable rpd group all upgrade <tftp_server_ip> tftp <HA_Shelf_V1.3_file_path>
```

Step 8 Verify one or more RPHY Shelf 7200 chassis status.

To verify one RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group <chassis base mac> upgrade status
```

To verify all RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group all upgrade status
```

Step 9 To check if all RPHY Shelf 7200 chassis have been upgraded to new version 1.3 and come online successfully you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- **select erpd slot *slot_id* index *index_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **select linecard slot *slot_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8
- **show environment all | alarms**— Supported on RPHY Shelf 7200
- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Upgrading cBR-8 Router Only

Before you begin

Before upgrading the system, make sure the following requirements are met:

- All eRPDs are in init(gcp) state.
- Download new image file from Cisco.com Software Center:
 - IOS XE Software Version 17.3.1x: [cbrsup-universalk9.17.03.01x.SPA.bin](#)
- Console access for both SUPs are required.



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_17_3.html.

Step 1 Copy Cisco IOS XE Amsterdam 17.3.1x package to bootflash: and stby-bootflash:.

```
copy <location>/cbrsup-universalk9.17.03.01x.SPA.bin bootflash:
copy <location>/cbrsup-universalk9.17.03.01x.SPA.bin stby-bootflash:
```

Step 2 Verify Cisco IOS XE Amsterdam 17.3.1x package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:cbrsup-universalk9.17.03.01x.SPA.bin
verify /md5 stby-bootflash:cbrsup-universalk9.17.03.01x.SPA.bin
```

Step 3 Backup current running config to bootflash:.

```
copy running-config bootflash:pre-upgrade.cfg
```

Step 4 Check system status prior to upgrade. Save the information to compare against the system status after upgrade. For the commands to use to check the status, see the **show** commands at the end of this section.

Step 5 Configure the chassis to boot the system with Cisco IOS XE Amsterdam 17.3.1x image and save running-configuration.

```
Configure terminal
no boot system
boot system bootflash:cbrsup-universalk9.17.03.01x.SPA.bin
config-register 0x2102
end
copy running-config startup-config
```

Step 6 Reload and bring up the cBR-8 router.

```
Reload
```

Step 7 Adjust RPD max-carrier and type, re-apply rpd-ds base-power for each RPD, save and backup current running-config.

```
cBR8(config)#cable rpd shelf-1-1
cBR8(config-rpd)#rpd-ds 0 base-power ?
    <20-22> Base Channel Power Value in dBmV

cBR8(config-rpd)#type shelf
cBR8(config-rpd)#rpd-ds 0 max-carrier 16
cBR8(config-rpd)#rpd-ds 0 base-power ?
    <37-46> Base Channel Power Value in dBmV

cBR8(config-rpd)#rpd-ds 0 base-power x //depends on customer real env
cBR8(config-rpd)#end
cBR8#copy running-config startup-config
cBR8#copy running-config bootflash:post-upgrade.cfg
```

Step 8 To check if all RPHY Shelf 7200 chassis are upgraded and come online successfully you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- select erpd slot *slot_id* index *index_id* — RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- select linecard slot *slot_id* — RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version** — Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform** — Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag** — Supported on cBR-8 and RPHY Shelf 7200
- **show environment** — Supported on cBR-8
- **show environment all | alarms** — Supported on RPHY Shelf 7200
- **show environment power** — Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status** — Supported on cBR-8
- **show facility-alarm status** — Supported on cBR-8
- **show redundancy** — Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all** — Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor** — Supported on cBR-8
- **show cable modem voice** — Supported on cBR-8
- **show cable calls** — Supported on cBR-8

- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Downgrading from Cisco Remote PHY Shelf 7200 Software 1.3

Downgrading Cisco Remote PHY Shelf 7200 and cBR-8 Router

Before you begin

Before downgrading the system, make sure the following requirements are met:

- All eRPDs are online.
- Download two files from the following Cisco.com Software Center URL:
 - IOS XE Software: <https://software.cisco.com/download/home/286283913/type>
 - IOS XE Software Version 16.10.1f: **cbrsup-universalk9.16.10.01f.SPA.bin**
 - IOS XE Software Version 16.10.1c: **cbrsup-universalk9.16.10.01c.SPA.bin**
 - Cisco Remote PHY Shelf 7200 software: <https://software.cisco.com/download/home/286321242/type>
 - Cisco Remote PHY Shelf 7200 Software 1.2: **HA-SHELF-V1-2.itb**
 - Cisco Remote PHY Shelf 7200 Software 1.1: **HA-SHELF-V1-1.itb**
- Console access for both SUPs are required.



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_17_3.html.

Step 1 Copy Cisco IOS XE software package to bootflash: and stby-bootflash:.

```
copy <location>/<ios_xe_software_file> bootflash:
```

```
copy <location>/<ios_xe_software_file> stby-bootflash:
```

Step 2 Verify Cisco IOS XE software package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:<ios_xe_software_file>
verify /md5 stby-bootflash:<ios_xe_software_file>
```

Step 3 Backup the current running config to bootflash:.

```
copy running-config bootflash:pre-upgrade.cfg
```

Step 4 Check system status prior to downgrade. Save the information to compare against the system status after downgrade. For the commands to use to check the status, see the **show** commands at the end of this section.

Step 5 Copy the Cisco RPHY Shelf 7200 software image package to HTTP or TFTP server that RPHY Shelf 7200 can reach to.

Step 6 Verify current RPHY Shelf 7200 software version.

```
show cable rpd sw-version
```

Step 7 Downgrade one or more RPHY Shelf images from cBR-8.

To downgrade one RPHY Shelf image using HTTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <http_server_ip> http
<HA_Shelf_file_path>
```

To downgrade one RPHY Shelf image using TFTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <tftp_server_ip> tftp
<HA_Shelf_file_path>
```

To retrieve the RPHY Shelf 7200 base mac address, run the **show cable rpd group** command. The Group ID column displays the base mac address for the respective HA Shelf 7200 chassis. If there is a primary RPD in the RPD group, which means the M column in the command output displays Y as shown below, you can upgrade the image of the RPD group.

```
Router#show cable rpd group
Load for five secs: 4%/1%; one minute: 6%; five minutes: 6%
No time source, *09:05:11.393 CST Mon Jun 3 2019
Codes: M-Master
MAC Address      IP Address      I/F      State  Group Id      Slot  M Name
a0f8.496f.f566  120.102.22.198 Te6/1/2  online 0027.900a.4c1a 1      N rphy61
a0f8.496f.f5f0  120.102.22.199 Te6/1/2  online 0027.900a.4c1a 2      Y rphy62
7abd.44a1.0083  120.102.22.194 Te7/1/7  online 7abd.44a1.0000 3      N erpd33
7abd.44a1.0082  120.102.22.193 Te7/1/7  online 7abd.44a1.0000 3      N erpd32
7abd.44a1.0085  120.102.22.196 Te7/1/7  online 7abd.44a1.0000 3      Y erpd35
7abd.44a1.0084  120.102.22.195 Te7/1/7  online 7abd.44a1.0000 3      N erpd34
7abd.44a1.0081  120.102.22.192 Te7/1/7  online 7abd.44a1.0000 3      N erpd31
badb.ad17.0c20  120.102.22.102 Te6/1/7  online badb.ad17.0c00 0      N f02-00
badb.ad17.0c21  120.102.22.101 Te6/1/7  online badb.ad17.0c00 0      N f02-01
badb.ad17.0c24  120.102.22.106 Te6/1/7  online badb.ad17.0c00 0      N f02-04
badb.ad17.0c22  120.102.22.104 Te6/1/7  online badb.ad17.0c00 0      N f02-02
badb.ad17.0c23  120.102.22.105 Te6/1/7  online badb.ad17.0c00 0      Y f02-03
badb.ad17.0c25  120.102.22.109 Te6/1/7  online badb.ad17.0c00 0      N f02-05
```

To downgrade all RPHY Shelf images using HTTP server, run this command

```
cable rpd group all upgrade <http_server_ip> http <HA_Shelf_file_path>
```

To downgrade all RPHY Shelf images using TFTP server, run this command

```
cable rpd group all upgrade <tftp_server_ip> tftp <HA_Shelf_file_path>
```

Step 8 Verify one or more RPHY Shelf 7200 chassis status.

To verify one RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group <chassis base mac> upgrade status
```

To verify all RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group all upgrade status
```

Step 9 Configure the chassis to boot the system with target Cisco IOS XE image and save running-configuration.

```
Configure terminal
no boot system
boot system bootflash:<ios_xe_software_file>
config-register 0x2102
end
copy running-config startup-config
```

Step 10 Reload and bring up the cBR-8 router.

```
Reload
```

Step 11 To check if all RPHY Shelf 7200 chassis have been downgraded to the target version and come online successfully, you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been downgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- select erpd slot *slot_id* index *index_id*— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- select linecard slot *slot_id*— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8
- **show environment all | alarms**— Supported on RPHY Shelf 7200

- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Downgrading Cisco Remote PHY Shelf 7200 Only

Before you begin

Before downgrading the system, make sure the following requirements are met:

- All eRPDs are in init(gcp) state.
- Download new image file from the following Cisco.com Software Center URL:

<https://software.cisco.com/download/home/286321242/type>

- Cisco Remote PHY Shelf 7200 Software 1.2: **HA-SHELF-V1-2.itb**
- Cisco Remote PHY Shelf 7200 Software 1.1: **HA-SHELF-V1-1.itb**



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_17_3.html.

Step 1

Copy the target Cisco RPHY Shelf 7200 software image package to HTTP or TFTP server that RPHY Shelf 7200 can reach to.

Note Cisco recommends using HTTP server to upgrade RPHY Shelf 7200.

Step 2 Verify current RPHY Shelf 7200 software version.

```
show cable rpd sw-version
```

Step 3 Downgrade one or more RPHY Shelf image from cBR-8.

To downgrade one RPHY Shelf image using HTTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <http_server_ip> http
<HA_Shelf_file_path>
```

To downgrade one RPHY Shelf image using TFTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <tftp_server_ip> tftp
<HA_Shelf_file_path>
```

To retrieve the RPHY Shelf 7200 base mac address, run the **show cable rpd group** command. The Group ID column displays the base mac address for the respective HA Shelf 7200 chassis. If there is a primary RPD in the RPD group, which means the M column in the command output displays Y as shown below, you can upgrade the image of the RPD group.

```
Router#show cable rpd group
Load for five secs: 4%/1%; one minute: 6%; five minutes: 6%
No time source, *09:05:11.393 CST Mon Jun 3 2019
Codes: M-Master
MAC Address      IP Address      I/F      State  Group Id      Slot  M Name
a0f8.496f.f566  120.102.22.198 Te6/1/2  online 0027.900a.4c1a 1      N rphy61
a0f8.496f.f5f0  120.102.22.199 Te6/1/2  online 0027.900a.4c1a 2      Y rphy62
7abd.44a1.0083  120.102.22.194 Te7/1/7  online 7abd.44a1.0000 3      N erpd33
7abd.44a1.0082  120.102.22.193 Te7/1/7  online 7abd.44a1.0000 3      N erpd32
7abd.44a1.0085  120.102.22.196 Te7/1/7  online 7abd.44a1.0000 3      Y erpd35
7abd.44a1.0084  120.102.22.195 Te7/1/7  online 7abd.44a1.0000 3      N erpd34
7abd.44a1.0081  120.102.22.192 Te7/1/7  online 7abd.44a1.0000 3      N erpd31
badb.ad17.0c20  120.102.22.102 Te6/1/7  online badb.ad17.0c00 0      N f02-00
badb.ad17.0c21  120.102.22.101 Te6/1/7  online badb.ad17.0c00 0      N f02-01
badb.ad17.0c24  120.102.22.106 Te6/1/7  online badb.ad17.0c00 0      N f02-04
badb.ad17.0c22  120.102.22.104 Te6/1/7  online badb.ad17.0c00 0      N f02-02
badb.ad17.0c23  120.102.22.105 Te6/1/7  online badb.ad17.0c00 0      Y f02-03
badb.ad17.0c25  120.102.22.109 Te6/1/7  online badb.ad17.0c00 0      N f02-05
```

To downgrade all RPHY Shelf images using HTTP server, run this command

```
cable rpd group all upgrade <http_server_ip> http <HA_Shelf_file_path>
```

To downgrade all RPHY Shelf images using TFTP server, run this command

```
cable rpd group all upgrade <tftp_server_ip> tftp <HA_Shelf_file_path>
```

Step 4 Verify one or more RPHY Shelf 7200 chassis status.

To verify one RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group <chassis base mac> upgrade status
```

To verify all RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group all upgrade status
```

Step 5 To check if all RPHY Shelf 7200 chassis have been downgraded to target version and come online successfully, you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- **select erpd slot *slot_id* index *index_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **select linecard slot *slot_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8
- **show environment all | alarms**— Supported on RPHY Shelf 7200
- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Downgrading cBR-8 Router Only

Before you begin

Before downgrading the system, make sure the following requirements are met:

- All eRPDs are in init(gcp) state.
- Download new image file from the following Cisco.com Software Center URL:
<https://software.cisco.com/download/home/286283913/type>
 - IOS XE Software Version 16.10.1f: **cbrsup-universalk9.16.10.01f.SPA.bin**
 - IOS XE Software Version 16.10.1c: **cbrsup-universalk9.16.10.01c.SPA.bin**
- Console access for both SUPs are required.



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_17_3.html.

Step 1 Copy Cisco IOS XE software package to bootflash: and stby-bootflash:.

```
copy <location>/<ios_xe_software_file> bootflash:
copy <location>/<ios_xe_software_file> stby-bootflash:
```

Step 2 Verify Cisco IOS XE software package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:<ios_xe_software_file>
verify /md5 stby-bootflash:<ios_xe_software_file>
```

Step 3 Backup current running config to bootflash:.

```
copy running-config bootflash:pre-upgrade.cfg
```

Step 4 Check system status prior to downgrade. Save the information to compare against the system status after upgrade. For the commands to use to check the status, see the **show** commands at the end of this section.

Step 5 Configure the chassis to boot the system with target Cisco IOS XE image and save running-configuration.

```
Configure terminal
no boot system
boot system bootflash:<ios_xe_software_file>
config-register 0x2102
end
copy running-config startup-config
```

Step 6 Reload and bring up the cBR-8 router.

Reload

Step 7

To check if all RPHY Shelf 7200 chassis are downgraded and come online successfully, you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- select erpd slot *slot_id* index *index_id* — RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- select linecard slot *slot_id* — RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8
- **show environment all | alarms**— Supported on RPHY Shelf 7200
- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs



CHAPTER 3

Cisco Remote PHY Shelf 7200 Software 1.2

- [Upgrading to Cisco Remote PHY Shelf 7200 Software 1.2, on page 39](#)
- [Downgrading from Cisco Remote PHY Shelf 7200 Software 1.2, on page 47](#)

Upgrading to Cisco Remote PHY Shelf 7200 Software 1.2

Upgrading Cisco Remote PHY Shelf 7200 and cBR-8 Router

Before you begin

Before upgrading the system, make sure the following requirements are met:

- All eRPDs are online.
- Download two files from the following Cisco.com Software Center URL:
<https://software.cisco.com/download/type.html?mdfid=286283913&flowid=73842>
 - IOS XE Software Version 16.10.1f: **cbrsup-universalk9.16.10.01f.SPA.bin**
 - Cisco Remote PHY Shelf 7200 1.2: **HA-SHELF-V1-2.itb.rel.sign**
- Console access for both SUPs are required.



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_16_10.html.

Step 1 Copy Cisco IOS-XE Fuji 16.10.1f package to bootflash: and stby-bootflash:

```
copy <location>/cbrsup-universalk9.16.10.01f.SPA.bin bootflash:
copy <location>/cbrsup-universalk9.16.10.01f.SPA.bin stby-bootflash:
```

Step 2 Verify Cisco IOS-XE Fuji 16.10.1d package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:cbrsup-universalk9.16.10.01f.SPA.bin.SPA.bin
verify /md5 stby-bootflash:cbrsup-universalk9.16.10.01f.SPA.bin
```

Step 3 Backup current running config to bootflash:

```
copy running-config bootflash:pre-upgrade.cfg
```

Step 4 Check system status prior to upgrade. Save the information to compare against the system status after upgrade. For the commands to use to check the status, see the **show** commands at the end of this section.

Note Cisco recommends using HTTP server to upgrade RPHY Shelf 7200.

Step 5 Copy Cisco HA-SHELF-V1-2 image package to HTTP or TFTP server that RPDs can reach to.

Step 6 Verify current RPHY Shelf 7200 software version.

```
show cable rpd sw-version
```

Step 7 Upgrade one or more RPHY Shelf image to V1.2 from cBR-8.

To upgrade one RPHY Shelf image using HTTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <http_server_ip> http
<HA_Shelf_V1.2_file_path>
```

To upgrade one RPHY Shelf image using TFTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <tftp_server_ip> tftp
<HA_Shelf_V1.2_file_path>
```

To retrieve the RPHY Shelf 7200 base mac address, run the **show cable rpd group** command. The Group ID column displays the base mac address for the respective HA Shelf 7200 chassis. If there is a primary RPD in the RPD group, which means the M column in the command output displays Y as shown below, you can upgrade the image of the RPD group.

```
Router#show cable rpd group
Load for five secs: 4%/1%; one minute: 6%; five minutes: 6%
No time source, *09:05:11.393 CST Mon Jun 3 2019
Codes: M-Master
MAC Address      IP Address      I/F      State  Group Id      Slot  M Name
a0f8.496f.f566  120.102.22.198 Te6/1/2  online 0027.900a.4c1a 1      N rphy61
a0f8.496f.f5f0  120.102.22.199 Te6/1/2  online 0027.900a.4c1a 2      Y rphy62
7abd.44a1.0083  120.102.22.194 Te7/1/7  online 7abd.44a1.0000 3      N erpd33
7abd.44a1.0082  120.102.22.193 Te7/1/7  online 7abd.44a1.0000 3      N erpd32
7abd.44a1.0085  120.102.22.196 Te7/1/7  online 7abd.44a1.0000 3      Y erpd35
7abd.44a1.0084  120.102.22.195 Te7/1/7  online 7abd.44a1.0000 3      N erpd34
7abd.44a1.0081  120.102.22.192 Te7/1/7  online 7abd.44a1.0000 3      N erpd31
badb.ad17.0c20  120.102.22.102 Te6/1/7  online badb.ad17.0c00 0      N f02-00
badb.ad17.0c21  120.102.22.101 Te6/1/7  online badb.ad17.0c00 0      N f02-01
badb.ad17.0c24  120.102.22.106 Te6/1/7  online badb.ad17.0c00 0      N f02-04
badb.ad17.0c22  120.102.22.104 Te6/1/7  online badb.ad17.0c00 0      N f02-02
badb.ad17.0c23  120.102.22.105 Te6/1/7  online badb.ad17.0c00 0      Y f02-03
badb.ad17.0c25  120.102.22.109 Te6/1/7  online badb.ad17.0c00 0      N f02-05
```

To upgrade all RPHY Shelf images using HTTP server, run this command

```
cable rpd group all upgrade <http_server_ip> http <HA_Shelf_V1.2_file_path>
```

To upgrade all RPHY Shelf images using TFTP server, run this command

```
cable rpd group all upgrade <tftp_server_ip> tftp <HA_Shelf_V1.2_file_path>
```

Step 8 Verify one or more RPHY Shelf 7200 chassis status.

To verify one RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group <chassis base mac> upgrade status
```

To verify all RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group all upgrade status
```

Step 9 Configure the chassis to boot the system with Cisco IOS-XE Fuji 16.10.1f image and save running-configuration.

```
Configure terminal
no boot system
boot system bootflash:cbrsup-universalk9.16.10.01f.SPA.bin
config-register 0x2102
end
copy running-config startup-config
```

Step 10 Reload and bring up the cBR-8 router.

```
Reload
```

Step 11 Adjust RPHY Shelf 7200 max-carrier and type, re-apply rpd-ds base-power for each RPHY Shelf 7200, save and backup current running-config.

```
cBR8(config)#cable rpd shelf-1-1
cBR8(config-rpd)#rpd-ds 0 base-power ?
    <20-22> Base Channel Power Value in dBmV

cBR8(config-rpd)#type shelf
cBR8(config-rpd)#rpd-ds 0 max-carrier 16
cBR8(config-rpd)#rpd-ds 0 base-power ?
    <37-46> Base Channel Power Value in dBmV

cBR8(config-rpd)#rpd-ds 0 base-power x //depends on customer real env
cBR8(config-rpd)#end
cBR8#copy running-config startup-config
cBR8#copy running-config bootflash:post-upgrade.cfg
```

Step 12 To check if all RPHY Shelf 7200 chassis have been upgraded to new version 1.2 and come online successfully you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- **select erpd slot *slot_id* index *index_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **select linecard slot *slot_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8
- **show environment all | alarms**— Supported on RPHY Shelf 7200
- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Upgrading Cisco Remote PHY Shelf 7200 Only

Before you begin

Before upgrading the system, make sure the following requirements are met:

- All eRPDs are in `init(gcp)`, `init(clock)`, or `online` state.
- Download new image file from the following Cisco.com Software Center URL:
<https://software.cisco.com/download/type.html?mdfid=286283913&flowid=73842>

- Cisco Remote PHY Shelf 7200 1.2: **HA-SHELF-V1-2.itb.rel.sign**



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_16_10.html.



Note Cisco recommends that to upgrade only Cisco Remote PHY Shelf 7200, you must run all commands on the Cisco Remote PHY Shelf 7200.

Step 1 Copy the Cisco RPHY Shelf 7200 V1.2 image package to HTTP or TFTP server that RPDs can reach to.

Note Cisco recommends using HTTP server to upgrade RPHY Shelf 7200.

Step 2 Verify current RPHY Shelf 7200 software version.

```
show cable rpd sw-version
```

Step 3 Upgrade one or more RPHY Shelf image to V1.2 from cBR-8.

To upgrade one RPHY Shelf image using HTTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <http_server_ip> http
<HA_Shelf_v1.2_file_path>
```

To upgrade one RPHY Shelf image using TFTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <tftp_server_ip> tftp
<HA_Shelf_v1.2_file_path>
```

To retrieve the RPHY Shelf 7200 base mac address, run the **show cable rpd group** command. The Group ID column displays the base mac address for the respective HA Shelf 7200 chassis. If there is a primary RPD in the RPD group, which means the M column in the command output displays Y as shown below, you can upgrade the image of the RPD group.

```
Router#show cable rpd group
Load for five secs: 4%/1%; one minute: 6%; five minutes: 6%
No time source, *09:05:11.393 CST Mon Jun 3 2019
Codes: M=Master
MAC Address      IP Address      I/F      State  Group Id      Slot  M  Name
a0f8.496f.f566  120.102.22.198 Te6/1/2  online 0027.900a.4c1a 1    N  rphy61
a0f8.496f.f5f0  120.102.22.199 Te6/1/2  online 0027.900a.4c1a 2    Y  rphy62
7abd.44a1.0083  120.102.22.194 Te7/1/7  online 7abd.44a1.0000 3    N  erpd33
7abd.44a1.0082  120.102.22.193 Te7/1/7  online 7abd.44a1.0000 3    N  erpd32
7abd.44a1.0085  120.102.22.196 Te7/1/7  online 7abd.44a1.0000 3    Y  erpd35
7abd.44a1.0084  120.102.22.195 Te7/1/7  online 7abd.44a1.0000 3    N  erpd34
7abd.44a1.0081  120.102.22.192 Te7/1/7  online 7abd.44a1.0000 3    N  erpd31
badb.ad17.0c20  120.102.22.102 Te6/1/7  online badb.ad17.0c00 0    N  f02-00
badb.ad17.0c21  120.102.22.101 Te6/1/7  online badb.ad17.0c00 0    N  f02-01
badb.ad17.0c24  120.102.22.106 Te6/1/7  online badb.ad17.0c00 0    N  f02-04
badb.ad17.0c22  120.102.22.104 Te6/1/7  online badb.ad17.0c00 0    N  f02-02
badb.ad17.0c23  120.102.22.105 Te6/1/7  online badb.ad17.0c00 0    Y  f02-03
badb.ad17.0c25  120.102.22.109 Te6/1/7  online badb.ad17.0c00 0    N  f02-05
```

To upgrade all RPHY Shelf images using HTTP server, run this command

```
cable rpd group all upgrade <http_server_ip> http <HA_Shelf_V1.2_file_path>
```

To upgrade all RPHY Shelf images using TFTP server, run this command

```
cable rpd group all upgrade <tftp_server_ip> tftp <HA_Shelf_V1.2_file_path>
```

Step 4 Verify one or more RPHY Shelf 7200 chassis status.

To verify one RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group <chassis base mac> upgrade status
```

To verify all RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group all upgrade status
```

Step 5 To check if all RPHY Shelf 7200 chassis have been upgraded to new version 1.2 and come online successfully you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- select erpd slot *slot_id* index *index_id*— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- select linecard slot *slot_id*— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8
- **show environment all | alarms**— Supported on RPHY Shelf 7200
- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8

- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Upgrading cBR-8 Router Only

Before you begin

Before upgrading the system, make sure the following requirements are met:

- All eRPDs are in init(gcp) state.
- Download new image file from the following Cisco.com Software Center URL:
<https://software.cisco.com/download/type.html?mdfid=286283913&flowid=73842>
 - IOS XE Software Version 16.10.1f: **cbrsup-universalk9.16.10.01f.SPA.bin**
- Console access for both SUPs are required.



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_16_10.html.

Step 1 Copy Cisco IOS-XE Fuji 16.10.1f package to bootflash: and stby-bootflash:.

```
copy <location>/cbrsup-universalk9.16.10.01f.SPA.bin bootflash:
copy <location>/cbrsup-universalk9.16.10.01f.SPA.bin stby-bootflash:
```

Step 2 Verify Cisco IOS-XE Fuji 16.10.1f package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:cbrsup-universalk9.16.10.01f.SPA.bin
verify /md5 stby-bootflash:cbrsup-universalk9.16.10.01f.SPA.bin
```

Step 3 Backup current running config to bootflash:.

```
copy running-config bootflash:pre-upgrade.cfg
```

Step 4 Check system status prior to upgrade. Save the information to compare against the system status after upgrade. For the commands to use to check the status, see the **show** commands at the end of this section.

Step 5 Configure the chassis to boot the system with Cisco IOS-XE Fuji 16.10.1f image and save running-configuration.

```
Configure terminal
no boot system
boot system bootflash:cbrsup-universalk9.16.10.01f.SPA.bin
config-register 0x2102
end
copy running-config startup-config
```

Step 6 Reload and bring up the cBR-8 router.

```
Reload
```

Step 7 Adjust RPD max-carrier and type, re-apply rpd-ds base-power for each RPD, save and backup current running-config.

```
cBR8(config)#cable rpd shelf-1-1
cBR8(config-rpd)#rpd-ds 0 base-power ?
<20-22> Base Channel Power Value in dBmV

cBR8(config-rpd)#type shelf
cBR8(config-rpd)#rpd-ds 0 max-carrier 16
cBR8(config-rpd)#rpd-ds 0 base-power ?
<37-46> Base Channel Power Value in dBmV

cBR8(config-rpd)#rpd-ds 0 base-power x //depends on customer real env
cBR8(config-rpd)#end
cBR8#copy running-config startup-config
cBR8#copy running-config bootflash:post-upgrade.cfg
```

Step 8 To check if all RPHY Shelf 7200 chassis are upgraded and come online successfully you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- select erpd slot *slot_id* index *index_id*— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- select linecard slot *slot_id*— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8

- **show environment all | alarms**— Supported on RPHY Shelf 7200
- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Downgrading from Cisco Remote PHY Shelf 7200 Software 1.2

Downgrading Cisco Remote PHY Shelf 7200 and cBR-8 Router

Before you begin

Before downgrading the system, make sure the following requirements are met:

- All eRPDs are online.
- Download two files from the following Cisco.com Software Center URL:
<https://software.cisco.com/download/type.html?mdfid=286283913&flowid=73842>
 - IOS XE Software Version 16.10.1c: **cbrsup-universalk9.16.10.01c.SPA.bin**
 - Cisco Remote PHY Shelf 7200 1.1: **HA-SHELF-V1-1.itb.rel.sign**
- Console access for both SUPs are required.



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_16_10.html.

Step 1 Copy Cisco IOS-XE Everest 16.10.1c package to bootflash: and stby-bootflash:.

```
copy <location>/cbrsup-universalk9.16.10.01c.SPA.bin bootflash:
copy <location>/cbrsup-universalk9.16.10.01c.SPA.bin stby-bootflash:
```

Step 2 Verify Cisco IOS-XE Everest 16.10.1c package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:cbrsup-universalk9.16.10.01c.SPA.bin
verify /md5 stby-bootflash:cbrsup-universalk9.16.10.01c.SPA.bin
```

Step 3 Backup current running config to bootflash:.

```
copy running-config bootflash:pre-upgrade.cfg
```

Step 4 Check system status prior to downgrade. Save the information to compare against the system status after downgrade. For the commands to use to check the status, see the **show** commands at the end of this section.

Step 5 Copy Cisco HA-SHELF-V1.1 image package to HTTP or TFTP server that RPDs can reach to.

Step 6 Verify current RPHY Shelf 7200 software version.

```
show cable rpd sw-version
```

Step 7 Downgrade one or more RPHY Shelf image to V1.1 from cBR-8.

To downgrade one RPHY Shelf image using HTTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <http_server_ip> http
<HA_Shelf_V1.1_file_path>
```

To downgrade one RPHY Shelf image using TFTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <tftp_server_ip> tftp
<HA_Shelf_V1.1_file_path>
```

To retrieve the RPHY Shelf 7200 base mac address, run the **show cable rpd group** command. The Group ID column displays the base mac address for the respective HA Shelf 7200 chassis. If there is a primary RPD in the RPD group, which means the M column in the command output displays Y as shown below, you can upgrade the image of the RPD group.

```
Router#show cable rpd group
Load for five secs: 4%/1%; one minute: 6%; five minutes: 6%
No time source, *09:05:11.393 CST Mon Jun 3 2019
Codes: M-Master
MAC Address      IP Address      I/F      State  Group Id      Slot  M Name
a0f8.496f.f566  120.102.22.198 Te6/1/2  online 0027.900a.4c1a 1    N rphy61
a0f8.496f.f5f0  120.102.22.199 Te6/1/2  online 0027.900a.4c1a 2    Y rphy62
```

```

7abd.44a1.0083 120.102.22.194 Te7/1/7 online 7abd.44a1.0000 3 N erpd33
7abd.44a1.0082 120.102.22.193 Te7/1/7 online 7abd.44a1.0000 3 N erpd32
7abd.44a1.0085 120.102.22.196 Te7/1/7 online 7abd.44a1.0000 3 Y erpd35
7abd.44a1.0084 120.102.22.195 Te7/1/7 online 7abd.44a1.0000 3 N erpd34
7abd.44a1.0081 120.102.22.192 Te7/1/7 online 7abd.44a1.0000 3 N erpd31
badb.ad17.0c20 120.102.22.102 Te6/1/7 online badb.ad17.0c00 0 N f02-00
badb.ad17.0c21 120.102.22.101 Te6/1/7 online badb.ad17.0c00 0 N f02-01
badb.ad17.0c24 120.102.22.106 Te6/1/7 online badb.ad17.0c00 0 N f02-04
badb.ad17.0c22 120.102.22.104 Te6/1/7 online badb.ad17.0c00 0 N f02-02
badb.ad17.0c23 120.102.22.105 Te6/1/7 online badb.ad17.0c00 0 Y f02-03
badb.ad17.0c25 120.102.22.109 Te6/1/7 online badb.ad17.0c00 0 N f02-05

```

To downgrade all RPHY Shelf images using HTTP server, run this command

```
cable rpd group all upgrade <http_server_ip> http <HA_Shelf_V1.1_file_path>
```

To downgrade all RPHY Shelf images using TFTP server, run this command

```
cable rpd group all upgrade <tftp_server_ip> tftp <HA_Shelf_V1.1_file_path>
```

Step 8 Verify one or more RPHY Shelf 7200 chassis status.

To verify one RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group <chassis base mac> upgrade status
```

To verify all RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group all upgrade status
```

Step 9 Configure the chassis to boot the system with Cisco IOS-XE Everest 16.6.2 image and save running-configuration.

```

Configure terminal
no boot system
boot system bootflash:cbrsup-universalk9.16.10.01c.SPA.bin
config-register 0x2102
end
copy running-config startup-config

```

Step 10 Reload and bring up the cBR-8 router.

```
Reload
```

Step 11 To check if all RPHY Shelf 7200 chassis have been downgraded to version 1.1 and come online successfully you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- select erpd slot *slot_id* index *index_id* — RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.

- select linecard slot *slot_id*— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8
- **show environment all | alarms**— Supported on RPHY Shelf 7200
- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Downgrading Cisco Remote PHY Shelf 7200 Only

Before you begin

Before downgrading the system, make sure the following requirements are met:

- All eRPDs are in init(gcp) state.
- Download new image file from the following Cisco.com Software Center URL:
<https://software.cisco.com/download/type.html?mdfid=286283913&flowid=73842>
 - Cisco Remote PHY Shelf 7200 1.2: **HA-SHELF-V1-1.itb.rel.sign**



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_16_10.html.

Step 1 Copy the Cisco RPHY Shelf 7200 V1.1 image package to HTTP or TFTP server that RPDs can reach to.

Note Cisco recommends using HTTP server to upgrade RPHY Shelf 7200.

Step 2 Verify current RPHY Shelf 7200 software version.

```
show cable rpd sw-version
```

Step 3 Downgrade one or more RPHY Shelf image to V1.1 from cBR-8.

To downgrade one RPHY Shelf image using HTTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <http_server_ip> http
<HA_Shelf_v1.1_file_path>
```

To downgrade one RPHY Shelf image using TFTP server, run this command:

```
cable rpd group <HA-Shelf_chassis_base_mac> upgrade <tftp_server_ip> tftp
<HA_Shelf_v1.1_file_path>
```

To retrieve the RPHY Shelf 7200 base mac address, run the **show cable rpd group** command. The Group ID column displays the base mac address for the respective HA Shelf 7200 chassis. If there is a primary RPD in the RPD group, which means the M column in the command output displays Y as shown below, you can upgrade the image of the RPD group.

```
Router#show cable rpd group
Load for five secs: 4%/1%; one minute: 6%; five minutes: 6%
No time source, *09:05:11.393 CST Mon Jun 3 2019
Codes: M-Master
MAC Address      IP Address      I/F      State  Group Id      Slot  M  Name
a0f8.496f.f566  120.102.22.198 Te6/1/2  online 0027.900a.4c1a 1    N  rphy61
a0f8.496f.f5f0  120.102.22.199 Te6/1/2  online 0027.900a.4c1a 2    Y  rphy62
7abd.44a1.0083  120.102.22.194 Te7/1/7  online 7abd.44a1.0000 3    N  erpd33
7abd.44a1.0082  120.102.22.193 Te7/1/7  online 7abd.44a1.0000 3    N  erpd32
7abd.44a1.0085  120.102.22.196 Te7/1/7  online 7abd.44a1.0000 3    Y  erpd35
7abd.44a1.0084  120.102.22.195 Te7/1/7  online 7abd.44a1.0000 3    N  erpd34
7abd.44a1.0081  120.102.22.192 Te7/1/7  online 7abd.44a1.0000 3    N  erpd31
badb.ad17.0c20  120.102.22.102 Te6/1/7  online badb.ad17.0c00 0    N  f02-00
badb.ad17.0c21  120.102.22.101 Te6/1/7  online badb.ad17.0c00 0    N  f02-01
badb.ad17.0c24  120.102.22.106 Te6/1/7  online badb.ad17.0c00 0    N  f02-04
badb.ad17.0c22  120.102.22.104 Te6/1/7  online badb.ad17.0c00 0    N  f02-02
badb.ad17.0c23  120.102.22.105 Te6/1/7  online badb.ad17.0c00 0    Y  f02-03
badb.ad17.0c25  120.102.22.109 Te6/1/7  online badb.ad17.0c00 0    N  f02-05
```

To downgrade all RPHY Shelf images using HTTP server, run this command

```
cable rpd group all upgrade <http_server_ip> http <HA_Shelf_v1.1_file_path>
```

To downgrade all RPHY Shelf images using TFTP server, run this command

```
cable rpd group all upgrade <tftp_server_ip> tftp <HA_Shelf_v1.1_file_path>
```

Step 4 Verify one or more RPHY Shelf 7200 chassis status.

To verify one RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group <chassis base mac> upgrade status
```

To verify all RPHY Shelf 7200 chassis status, run this command.

```
cable rpd group all upgrade status
```

Step 5

To check if all RPHY Shelf 7200 chassis have been downgraded to new version 1.1 and come online successfully you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- **select erpd slot *slot_id* index *index_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **select linecard slot *slot_id***— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8
- **show environment all | alarms**— Supported on RPHY Shelf 7200
- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show cable rpd**— Supported on cBR-8

- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

Downgrading cBR-8 Router Only

Before you begin

Before downgrading the system, make sure the following requirements are met:

- All eRPDs are in init(gcp) state.
- Download new image file from the following Cisco.com Software Center URL:
<https://software.cisco.com/download/type.html?mdfid=286283913&flowid=73842>
 - IOS XE Software Version 16.10.1c: **cbrsup-universalk9.16.10.01c.SPA.bin**
- Console access for both SUPs are required.



Note For more information about upgrading the cBR-8 router, see https://www.cisco.com/c/en/us/td/docs/cable/cbr/upgrade/guide/b_cbr_upgrade_16_10.html.

Step 1 Copy Cisco IOS XE Everest 16.10.1c package to bootflash: and stby-bootflash:.

```
copy <location>/cbrsup-universalk9.16.10.01c.SPA.bin bootflash:
copy <location>/cbrsup-universalk9.16.10.01c.SPA.bin stby-bootflash:
```

Step 2 Verify Cisco IOS XE Everest 16.10.1c package against the md5 hash as provided in the Cisco.com Software center.

```
verify /md5 bootflash:cbrsup-universalk9.16.10.01c.SPA.bin
verify /md5 stby-bootflash:cbrsup-universalk9.16.10.01c.SPA.bin
```

Step 3 Backup current running config to bootflash:.

```
copy running-config bootflash:pre-upgrade.cfg
```

Step 4 Check system status prior to downgrade. Save the information to compare against the system status after upgrade. For the commands to use to check the status, see the **show** commands at the end of this section.

Step 5 Configure the chassis to boot the system with Cisco IOS XE Everest 16.10.1c image and save running-configuration.

```
Configure terminal
```

```

no boot system
boot system bootflash:cbrsup-universalk9.16.10.01c.SPA.bin
config-register 0x2102
end
copy running-config startup-config

```

Step 6 Reload and bring up the cBR-8 router.

```
Reload
```

Step 7 To check if all RPHY Shelf 7200 chassis are downgraded and come online successfully you can either:

Telnet to FCC IP and run the **show version** command or

To check if one or more RPHY Shelf 7200 chassis have been upgraded, SSH to the eRPD and run the show version command.

What to do next

These **show** commands may be useful in the verification test:

- select erpd slot *slot_id* index *index_id*— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- select linecard slot *slot_id*— RPHY Shelf 7200 command, normally run on FCC, but can also run on primary eRPD and line cards.
- **show version**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show platform diag**— Supported on cBR-8 and RPHY Shelf 7200
- **show environment**— Supported on cBR-8
- **show environment all | alarms**— Supported on RPHY Shelf 7200
- **show environment power**— Supported on cBR-8
- **show platform hardware slot P <0-5> mcu status**— Supported on cBR-8
- **show facility-alarm status**— Supported on cBR-8
- **show redundancy**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show redundancy line card all**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs.
- **show ip ospf neighbor**— Supported on cBR-8
- **show cable modem voice**— Supported on cBR-8
- **show cable calls**— Supported on cBR-8
- **show cable licenses all**— Supported on cBR-8
- **show inventory**— Supported on cBR-8
- **show log**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

- **show cable rpd**— Supported on cBR-8
- **show cable modem summary total**— Supported on cBR-8
- **show cable rpd lcha**— Supported on cBR-8
- **show running**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs
- **show tech**— Supported on cBR-8 and RPHY Shelf 7200 with different outputs

