



Upgrading to the Cisco ASR 1000 Series Routers ROMmon Image Release 12.2(33r)XNC0

This document contains procedures for downloading independent ROM monitor (ROMmon) software onto the Route Processor 2 (RP2) on a Cisco ASR 1000 Series Router. This document contains the following sections:

- [ROMmon Overview, page 1](#)
- [Compatibility Requirements, page 1](#)
- [Upgrading ROMmon, page 2](#)

ROMmon Overview

The ROMmon Release 12.2(33r)XNC0 image is provided to customers in cases where a ROMmon upgrade is required, specifically for those Cisco ASR 1000 Series Routers that contain the new RP2 Route Processor. A ROMmon upgrade using the ROMmon Release 12.2(33r)XNC0 image is only necessary in cases where you have an RP2 processor, a system message indicates one of the ROMmon on the Cisco ASR 1000 Series Routers needs an upgrade, or a Cisco technical support representative suggests upgrading ROMmon.

The ROMmon software for Cisco ASR 1000 Series Routers containing the new RP2 processor is *asr1000-rommon.rp2.122-33r.XNC0.pkg*.

Compatibility Requirements

The *asr1000-rommon.rp2.122-33r.XNC0.pkg* file can be used to upgrade RP2 as long as the privileged EXEC or diagnostic mode prompt on the router can be accessed.



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Upgrading ROMmon

This section covers the following topics:

- [Upgrading ROMmon Overview, page 2](#)
- [Checking the Current ROMmon Version, page 2](#)
- [Upgrading ROMmon for an RP2 Processor, page 3](#)

Upgrading ROMmon Overview

If you are unsure if a ROMmon upgrade is required or if you have installed a new RP2 that requires an upgrade, see the [“Checking the Current ROMmon Version”](#) section on page 2.

Checking the Current ROMmon Version

Enter the **show rom-monitor slot** or **show platform** command to check the version of ROMmon running on any RP, ESP, or SIP in your Cisco ASR 1000 Series Router.

If the following output appears after the **show rom-monitor slot** or **show platform** command is entered, the RP2 processor in the specified *slot* is already running ROMmon Release 12.2(33r)XNC0:

```
Router# show rom-monitor slot
System Bootstrap, Version 12.2(33r)XNC0, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
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```

```
Router# show platform
Chassis type: ASR1006
```

Slot	Type	State	Insert time (ago)
1	MCP-CC	ok	2d16h
1/1	SPA-1XTENGE-XFP	ok	2d16h
1/2	SPA-2XOC3-POS	ok	2d16h
1/3	SPA-2X1GE	ok	2d16h
2	ASR1000-SIP10	ok	2d16h
R0	ASR1000-RP2	ok, active	2d16h
F0	ASR1000-ESP20	ok, active	2d16h
F1	ASR1000-ESP20	ok, standby	2d16h
P0	ASR1006-PWR-AC	ps, fail	2d16h
P1	ASR1006-PWR-AC	ok	2d16h

Slot	CPLD Version	Firmware Version
1	07091401	12.2(33r)XN1
2	07091401	12.2(33r)XN1
R0	08103002	12.2(33r)XNC0
F0	07091401	12.2(33r)XN2
F1	07091401	12.2(33r)XN2

Upgrading ROMmon for an RP2 Processor

Use this procedure to upgrade ROMmon on an RP2 processor in a Cisco ASR 1000 Series Router:

-
- Step 1** (Optional) Enter the **show platform** command or the **show rom-monitor slot** command for each RP2 processor in the router to see the current version of ROMmon currently on the hardware. See the “[Checking the Current ROMmon Version](#)” section on page 2 for information about interpreting this output.
- Step 2** If the ROMmon image has not been copied onto the router, copy the *asr1000-rommon.rp2.122-33r.XNCO.pkg* file that was made available as part of this special release onto the bootflash: or usb[0-1]: file system using the **copy source-URL destination-URL** command.
- Step 3** Enter the **dir file-system** command to confirm the file was copied into the desired directory.
- Step 4** Enter the **upgrade rom-monitor filename URL slot** command to begin the ROMmon image upgrade, where *URL* is the path to the ROMmon file and *slot* specifies the hardware that will receive the ROMmon upgrade.



Note If there is more than one RP2 processor in the Cisco ASR 1000 Series Router, you can use the **upgrade rom-monitor filename URL all** command to upgrade all RP2 processors.



Caution Do not remove hardware, turn off power, or interrupt the router in any way during the ROMmon upgrade. Although the Cisco ASR 1006 Router should be able to recover from most interruptions during the ROMmon upgrade, certain scenarios may cause unpredictable problems.

- Step 5** Messages regarding the upgrade will appear on the console. Once these messages have stopped and the router prompt is available, enter the **hw-module slot slot reload** command to reload the hardware that was upgraded. The ROMmon upgrade is not complete for any piece of hardware until that piece of hardware is reloaded.



Note The **hw-module slot slot reload** command cannot be used to reload an active RP. If you must reload an active RP to complete a ROMmon upgrade, reload the RP using one of the following methods:

- Enter **reload** to reload the entire router.
- Force a switchover using the **redundancy force-switchover** command, and then enter the **hw-module slot slot reload** command on the RP after it has become the standby RP.

- Step 6** Enter the **show platform** command or the **show rom-monitor slot** command to confirm the ROMmon has been upgraded.



Note The versions of ROMmon in this example are provided for illustrative purposes only.

Example

```
Router# show platform
Chassis type: ASR1006
```

Slot	Type	State	Insert time (ago)
1	MCP-CC	ok	00:05:29
1/1	SPA-1XTENGE-XFP	ok	00:04:27
1/2	SPA-2XOC3-POS	ok	00:04:23
1/3	SPA-2X1GE	ok	00:04:18
2	ASR1000-SIP10	ok	00:05:29
R0	ASR1000-RP2	ok, active	00:05:29
F0	ASR1000-ESP20	ok, active	00:05:29
F1	ASR1000-ESP20	ok, standby	00:05:29
P0	ASR1006-PWR-AC	ps, fail	00:04:58
P1	ASR1006-PWR-AC	ok	00:04:58

Slot	CPLD Version	Firmware Version
1	07091401	12.2(33r)XN1
2	07091401	12.2(33r)XN1
R0	08103002	12.2(20081212:082409) [dbeazley-MCP_...
F0	07091401	12.2(33r)XN2
F1	07091401	12.2(33r)XN2

```
Router# copy tftp bootflash:
Address or name of remote host [172.23.16.81]?
Source filename []? auto/tftp-boot/rommon/asr1000-rommon.rp2.122-33r.XNC0.pkg
Destination filename [asr1000-rommon.rp2.122-33r.XNC0.pkg]?
Accessing tftp://172.23.16.81/auto/tftp-boot/asr1000-rommon.rp2.122-33r.XNC0.pkg...
Loading /auto/tftp-boot/asr1000-rommon.rp2.122-33r.XNC0.pkg from 172.23.16.81 (via
GigabitEthernet0): !!!
[OK - 559308 bytes]
```

559308 bytes copied in 1.142 secs (489762 bytes/sec)

```
Router# dir bootflash:
Directory of bootflash:/
```

11	drwx	16384	Dec 4 2007 12:32:46 +00:00	lost+found
86401	drwx	4096	Dec 4 2007 14:06:24 +00:00	.ssh
14401	drwx	4096	Jul 22 2008 01:10:38 +01:00	.rollback_timer
28801	drwx	4096	Aug 20 2008 21:53:54 +01:00	.prst_sync
43201	drwx	4096	Jul 22 2008 01:10:54 +01:00	.installer
43204	drwx	4096	Aug 20 2008 21:21:44 +01:00	210subs
72001	drwx	4096	Aug 20 2008 22:08:12 +01:00	211ioscontrolsubs
12	-rw-	559308	Sep 10 2008 00:39:44 +01:00	asr1000-rommon.rp2.122-33r.XNC0.pkg
57601	drwx	4096	Aug 20 2008 21:12:02 +01:00	211subs
13	-rw-	45977	Apr 10 2008 00:48:46 +01:00	target_support_output.tgz.tgz

928862208 bytes total (494886912 bytes free)

```
Router# upgrade rom-monitor filename bootflash:asr1000-rommon.rp2.122-33r.XNC0.pkg R0
```

Upgrade rom-monitor on Route-Processor 0

```
Target copying rom-monitor image file
65536+0 records in
65536+0 records out
65536+0 records in
65536+0 records out
Checking upgrade image...
```

```

1048576+0 records in
2048+0 records out
Upgrade image MD5 signature is a0786c348ac9444e62e9e1384877a909
65536+0 records in
65536+0 records out
65536+0 records in
65536+0 records out
65536+0 records in
65536+0 records out
65536+0 records out
Burning upgrade partition...
1048576+0 records in
1048576+0 records out
Checking upgrade partition...
1048576+0 records in
1048576+0 records out

Upgrade flash partition MD5 signature is a0786c348ac9444e62e9e1384877a909
ROMMON upgrade complete.
To make the new ROMMON permanent, you must restart the RP.

Router# hw-module slot 0 reload

Router#reload
Proceed with reload? [confirm]

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Current image running: Boot ROM0
Last reset cause: LocalSoft

ASR1000-RP2 platform with 16777216 Kbytes of main memory

Rommon upgrade requested
Flash upgrade reset 1 in progress
.....

Initializing Hardware ...

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Current image running: *Upgrade in progress* Boot ROM1
Last reset cause: BootRomUpgrade

***          Incorrect BIOS parameters          ***
*** Correcting the BIOS parameters and rebooting ***

Initializing Hardware ...

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Current image running: Boot ROM0
Last reset cause: Watchdog/ICH

ASR1000-RP2 platform with 16777216 Kbytes of main memory

Rommon upgrade requested
Flash upgrade reset 2 in progress
.....

```

Initializing Hardware ...

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Current image running: *Upgrade in progress* Boot ROM1
 Last reset cause: BootRomUpgrade

ASR1000-RP2 platform with 16777216 Kbytes of main memory

Router# **show platform**
 Chassis type: ASR1006

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1/2	SPA-2XOC3-POS	ok	2d16h
1/3	SPA-2X1GE	ok	2d16h
2	ASR1000-SIP10	ok	2d16h
R0	ASR1000-RP2	ok, active	2d16h
F0	ASR1000-ESP20	ok, active	2d16h
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P0	ASR1006-PWR-AC	ps, fail	2d16h
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F0	07091401	12.2(33r)XN2
F1	07091401	12.2(33r)XN2

Router# **show rom-monitor 0**

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