



Cisco NCS540

IOS-XR Release 7.7.2

IOS-XR System Upgrade Procedure

For Cisco N540-24Z8Q2C-SYS, N540X-ACC-SYS, and N540-ACC-SYS Variants



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Purpose, Scope and Audience

This document provides information on the two methods available for system upgrade for NCS540 Series platforms from software version 7.3.x/7.4.x/7.5.x/7.6.x/7.7.1 to 7.7.2



This document covers NGXR to NGXR upgrade procedure only.

Platform	Supported From	To
NCS540 1RU Router (N540-24Z8Q2C-M)	7.3.1/7.3.2/7.4.1/7.4.2/ 7.5.1/7.5.2/7.6.1/7.6.2/7.7.1	7.7.2
16G NCS540 1RU Router (N540-ACC-SYS/ N540X-ACC-SYS)	7.3.1/7.3.2/7.4.1/7.4.2/ 7.5.1/7.5.2/7.6.1/7.6.2/7.7.1	7.7.2

Obtain Required Package Files

Mini ISO Package is mandatory to perform the System Upgrade and upgrade needs to be done from XR VM.

Additional XR packages listed below are needed depending on the router configuration and required features:

Package Description	Package Filename
Cisco IOS XR IP Unicast Routing Core Bundle Contains the required core packages, including OS, Admin, Base, Forwarding, Modular Services Card, Routing, SNMP Agent, and Alarm Correlation.	ncs540-mini-x-7.7.2.iso
Cisco IOS XR Manageability Package Telemetry, Extensible Markup Language (XML), Parser, and HTTP server packages, NETCONF, YANG Models, gRPC.	ncs540-mgbl-1.0.0.0-r772.x86_64.rpm
Cisco IOS XR MPLS Package Label Distribution Protocol (LDP), MPLS Forwarding, MPLS Operations, Administration, and Maintenance (OAM), Link Manager Protocol (LMP), Optical User Network Interface (OUNI) and Layer-3 VPN.	ncs540-mpls-1.0.0.0-r772.x86_64.rpm
Cisco IOS XR MPLS-TE and RSVP Package MPLS Traffic Engineering (MPLS-TE) and Resource Reservation Protocol (RSVP).	ncs540-mpls-te-rsvp-1.0.0.0-r772.x86_64.rpm
Cisco IOS XR MCAST Package Contains Automatic Multicast Tunneling (AMT), IGMP Multicast Listener Discovery (MLD), Multicast Source Discovery Protocol (MSDP) and PIM.	ncs540-mcast-1.0.0.0-r772.x86_64.rpm
Cisco IOS XR Security Package Support for Encryption, Decryption, IP Security (IPSec), Secure Shell (SSH), Secure Socket Layer (SSL), and Public-key Infrastructure (PKI)	ncs540-k9sec-1.0.0.0-r772.x86_64.rpm
Cisco IOS XR OSPF Package Open Shortest Path First (OSPF) version 2 for IPv4 and OSPF version 3 for IPv6.	ncs540-ospf-1.0.0.0-r772.x86_64.rpm
Cisco IOS XR IS-IS Package Intermediate System to Intermediate System (IS-IS).	ncs540-isis-1.0.0.0-r772.x86_64.rpm
Cisco IOS XR LI Package Lawful Intercept	ncs540-li-1.0.0.0-r772.x86_64.rpm
Cisco IOS XR LI-CTRL Package	ncs540-lictrl-1.0.0.0-r772.x86_64.rpm
Cisco IOS XR EIGRP Package	ncs540-eigrp-1.0.0.0-r772.x86_64.rpm
Cisco IOS XR USB Boot Package	ncs540-usb_boot-7.7.2.zip

Configuration Backup

- Copy the running-configuration to harddisk on the router.

```
RP/0/RP0/CPU0:ROUTER# copy running-config harddisk:<filename>
```

- Copy the running-configuration to a remote tftp server

```
RP/0/RP0/CPU0:ROUTER# copy running-config tftp://<tftp server IP Address>/<TFTP Server Location>
```

For Example:

```
copy running-config tftp://1.56.24.1/auto/tftp-good/user1/running_cfg
```

Install Bridge SMUs

This section lists the *Bridge SMUs needed to perform a System Upgrade from 7.3.x/7.4.x/7.5.x/7.6.x/7.7.1 to 7.7.2 image.



Note

Bridge SMU: Here bridge SMU means all the mandatory SMUs required to upgrade to Target release from Base Release

Base (From) Release	Target (To) Release	Bridge SMU
7.3.1/7.3.2/7.4.1/7.4.2/ 7.5.1/7.5.2/7.6.1/7.6.2/7.7.1	7.7.2	No Bridge SMU Required

Pre-Upgrade Tasks

- **System Stability Check:** The following commands should be executed to verify basic system stability before the upgrade. At the XR prompt:
 - > `show platform` (Verify that all nodes are in "OPERATIONAL" state)
 - > `show platform vm` (Verify that all nodes are in "FINAL Band" state)
 - > `show redundancy` (Verify that a Standby RP is available and in "ready" state)
 - > `show ipv4 interface brief` (Verify that all **necessary** interfaces are "UP")
<or>
`show ipv6 interface brief`
<or>
`show interface summary`
 - > `show install active` (Verify that the proper set of packages are active)
 - > `admin show install active` (Verify packages on sysadmin plane)
 - > `show install commit` (Verify that the proper set of committed packages are same as active. If not, execute 'install commit')

- > `cfs check` (Verify/fix configuration file system)
- <or>
- `clear configuration inconsistency`
- > `show alarms` (Verify Alarms)
- > `admin show env all` (Verify Environment variables)
- > `show media (both XR and Admin mode)` (Verify Media in XR and sysadmin plane)
- > `show inventory` (Verify inventory)
- > `show log` (Verify syslog)

- **Cost-out IGP:** To minimize traffic loss during the upgrade please follow below steps:
For OSPF use “max-metric” command.

```
router(config-ospf)# max-metric router-lsa
```

For ISIS use “set-overload-bit” command.

```
router(config-isis)# set-overload-bit
```

- Enable auto FPD auto upgrade from XR and Sysadmin.

```
router(config)# fpd auto-upgrade enable
router(config)# commit
```

- Check available space in install repository. At least 2G of free space is required to perform System upgrade. If copying the packages and SMU's to the harddisk ensure 50% free space on the harddisk.

```
sysadmin-vm:0_RP1# show media
```

- Check inactive packages and remove them before upgrading.

```
XR: RP/0/RSP0/CPU0:router# install remove inactive
```

```
Sysadmin: sysadmin-vm:0_RP0# show install inactive
```

- Check and delete core files and any other files which are not required in harddisk

```
RP/0/RP0/CPU0:ROUTER# run
[xr-vm_node0_RP0_CPU0:~]$ cd /harddisk\:
[xr-vm_node0_RP0_CPU0:/harddisk:]$ rm *core*
```

Software Upgrade

Classic Method

All System Upgrade related install operations should be done in the XR VM plane. Make sure 3 to 4 GB disk space is free prior to upgrade. “show media” will show up the free space.

SKIP THIS SECTION IF ‘install source’ CLI IS THE PREFERRED METHOD TO PERFORM A SYSTEM UPGRADE AND CONTINUE TO NEXT SECTION ([Software Upgrade – ‘install source’ CLI Method](#))

- Download 7.7.2 mini ISO and packages tar and SMUs from CCO.

Copy tar file to tftp / scp / ftp server. Verify the contents of the tar file.

```
bgl-ads-4870:190> tar -tvf NCS540-iosxr-k9-7.7.2.tar
-rw-r--r--  vram/xrops  661629      2022-10-26  14:37  ncs540-eigrp-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops  3698096   2022-10-26  14:37  ncs540-isis-1.0.0.0-r772.x86_64.rpm
-rwxr-x---  vram/crypto 1275773   2022-10-26  14:43  ncs540-k9sec-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops  351669    2022-10-26  14:36  ncs540-li-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops  9824      2022-10-26  14:36  ncs540-lictrl-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops  11831083  2022-10-26  14:37  ncs540-mcast-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops  21329593  2022-10-26  14:37  ncs540-mgbl-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops  1803907072 2022-10-26  14:50  ncs540-mini-x-7.7.2.iso
-rw-r--r--  vram/xrops  2725672   2022-10-26  14:37  ncs540-mpis-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops  8655529   2022-10-26  14:37  ncs540-mpis-te-rsvp-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops  4114954   2022-10-26  14:37  ncs540-ospf-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/eng    805       2022-10-27   5:40  README-NCS540-iosxr-k9-7.7.2.txt
```

- Copy the 7.7.2 tar file to the router harddisk and verify that file is copied successfully

```
RP/0/RP0/CPU0:ROUTER#scp root@1.56.24.1:/auto/tftp-gud/sit/7.7.2/ncs540/
NCS540-iosxr-k9-7.7.2.tar /misc/disk1/.
```

- Verify the md5 checksum of the tar/individual rpms with the original MD5 values on CCO

```
[xr-vm_node0_RP0_CPU0:/misc/disk1]$md5sum NCS540-iosxr-k9-7.7.2.tar
```

- Perform 'install add' of 772 tar file:

```
RP/0/RP0/CPU0:ROUTER#install add source harddisk: NCS540-iosxr-k9-7.7.2.tar
```

- Take a note of the install operation id generated by the add operation in previous step

```
Install operation 180 finished successfully
```

- Prepare the packages added before

```
RP/0/RP0/CPU0:ROUTER#install prepare id 180
```

- Check if install prepare is successful

```
RP/0/RP0/CPU0:ROUTER#show install prepare
```

- Check 'show install log' is successful and for any errors

```
RP/0/RP0/CPU0:ROUTER#show install log 181
```

- Activate all the packages

```
RP/0/RP0/CPU0:ROUTER#install activate
```

- Router will reload at the end of activation to start using the new packages.



Note

This operation may take up to 30 minutes to complete.

- Verify that all the packages are installed correctly in XR and SysAdmin

```
RP/0/RP0/CPU0:ROUTER#show install active
sysadmin-vm:0_RP0#show install active
```

- Execute 'install commit' to commit the newly active software (install commit is required after any install activate operation else after router reload, nodes will go back to previously committed software)

```
RP/0/RP0/CPU0:ROUTER#install commit
```

- Verify system stability through commands described under Check [System Stability](#) section after router comes up with new software

- Verify show version to check router is upgraded.

```
RP/0/RP0/CPU0:ROUTER#show version
Cisco IOS XR Software, Version 7.7.2
Copyright (c) 2013-2022 by Cisco Systems, Inc.
```

Build Information:

```
Built By      : ingunawa
Built On      : Wed Oct 26 12:38:22 PDT 2022
Built Host    : iox-lnx-096
Workspace     : /auto/srcarchive14/prod/7.7.2/ncs540/ws
Version      : 7.7.2
Location     : /opt/cisco/XR/packages/
Label        : 7.7.2
```

```
cisco NCS-540 () processor
System uptime is 1 hour 55 minutes
```

- Check to see if there were any failed startup configurations.

```
RP/0/RP0/CPU0:ROUTER#show configuration failed startup
```

- Add recommended SMUs for 7.7.2 if not already in initial tarball (optional)

```
RP/0/RP0/CPU0:ROUTER#install add source harddisk: <mandatory SMU tar file for 7.7.2>
```

- Activate the recommended SMUs (If recommended smu's were added)

```
RP/0/RP0/CPU0:ROUTER#install activate id <add id of previous step>
```

- Enter 'yes' to reload prompt

After system comes up from reload, execute 'install commit'

'Install source' CLI Method

All System Upgrade related install operations should be done in the XR VM plane. Skip this section if section '[Software Upgrade – Classic Method](#)' has been performed

- Download 7.7.2 mini ISO, packages tar and SMUs from CCO. Copy tar file to tftp / scp / ftp server directory.

- Extract tar file to the directory. Also, extract all 7.7.2 mandatory SMUs and copy to the same directory.

```
bgl-ads-4870:190> tar -tvf NCS540-iosxr-k9-7.7.2.tar
-rw-r--r--  vram/xrops      661629      2022-10-26  14:37  ncs540-eigrp-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops      3698096     2022-10-26  14:37  ncs540-isis-1.0.0.0-r772.x86_64.rpm
-rwxr-x---  vram/crypto     1275773     2022-10-26  14:43  ncs540-k9sec-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops      351669     2022-10-26  14:36  ncs540-li-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops       9824       2022-10-26  14:36  ncs540-lictrl-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops     11831083    2022-10-26  14:37  ncs540-mcast-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops     21329593    2022-10-26  14:37  ncs540-mgbl-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops     1803907072  2022-10-26  14:50  ncs540-mini-x-7.7.2.iso
-rw-r--r--  vram/xrops     2725672     2022-10-26  14:37  ncs540-mpls-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops     8655529     2022-10-26  14:37  ncs540-mpls-te-rsvp-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/xrops     4114954     2022-10-26  14:37  ncs540-ospf-1.0.0.0-r772.x86_64.rpm
-rw-r--r--  vram/eng        805         2022-10-27   5:40  README-NCS540-iosxr-k9-7.7.2.txt
```

- Verify the md5 checksum of the tar/individual rpms with the original MD5 values posted on CCO

```
[xr-vm_node0_RP0_CPU0:/misc/disk1]$md5sum NCS540-iosxr-k9-7.7.2.tar
```

- Perform System Upgrade using 'install source' CLI.

```
RP/0/RP0/CPU0:ROUTER# install source harddisk: NCS540-iosxr-k9-7.7.2.tar
```

- Respond 'yes' to the reload prompt. This step can be skipped if no prompt option was used.
- After user enter 'yes' to the reload prompt router will reload at the end of activation to start using the new packages. [This step can be skipped if no prompt option was used]



Note This operation may take up to 30 minutes to complete.

- Verify that all the packages are installed correctly in XR and sysadmin

```
RP/0/RP0/CPU0:ROUTER#show install active
```

- Verify show version to check router is upgraded to 772

```
RP/0/RP0/CPU0:ROUTER#show version
Cisco IOS XR Software, Version 7.7.2
Copyright (c) 2013-2022 by Cisco Systems, Inc.
```

```
Build Information:
  Built By      : ingunawa
  Built On     : Wed Oct 26 12:38:22 PDT 2022
  Built Host   : iox-lnx-096
  Workspace    : /auto/srcarchive14/prod/7.7.2/ncs540/ws
  Version      : 7.7.2
  Location     : /opt/cisco/XR/packages/
  Label       : 7.7.2
```

```
cisco NCS-540 () processor
System uptime is 1 hour 55 minutes
```


- Execute 'install commit' to commit the newly active software (install commit is required after any install activate operation else after router reload, nodes will go back to previously committed software)

```
RP/0/RP0/CPU0:ROUTER#install commit
```

- Verify system stability through commands described under Check [System Stability](#) section (3.1) after router comes up with new software
- Check to see if there were any failed startup config.

```
RP/0/RP0/CPU0:ROUTER#show configuration failed startup
```

Post-Upgrade Tasks

- Disk cleanup: Once software upgrade has been completed, disk space can be recovered by removing any inactive packages that are no longer needed (if the packages are required at a later time, they can be re-added):

```
RP/0/RP0/CPU0:ROUTER##install remove inactive all
```

- Verify/fix configuration file system (mandatory):

```
RP/0/RP0/CPU0:ROUTER#cfs check
```

- Verify fpd versions running are current:

```
RP/0/RP0/CPU0:ROUTER#show hw-module fpd
```

- Restore IGP metric if changed before the upgrade (this is done from xr vm) OSPF

```
RP/0/RP0/CPU0:ROUTER# (config-ospf)# no max-metric router-lsa
```

ISIS

```
RP/0/RP0/CPU0:ROUTER# (config-isis)# no set-overload-bit
```

Caveats

There are no caveats for System Upgrade to 7.7.2

Pre-Downgrade Tasks

- Follow all the procedures mentioned in [Pre-Upgrade Tasks](#).

Software Downgrade

Classic Method

All System Upgrade related install operations should be done in the XR VM plane.

SKIP THIS SECTION IF 'install source' CLI IS THE PREFERRED METHOD TO PERFORM A SYSTEM UPGRADE AND CONTINUE TO NEXT SECTION ([Software Downgrade – 'install source' CLI Method](#))

- Download 7.6.1 mini ISO and packages tar and SMUs from CCO.
Copy tar file to tftp / scp / ftp server. Verify the contents of the tar file”

```
sit-auto:185>tar -tvf NCS540-iosxr-k9-7.6.1.tar
```

- Copy the 7.6.1 tar file to the router harddisk and verify that file is copied successfully

```
RP/0/RP0/CPU0:ROUTER#scp root@1.56.24.1:/auto/tftp-gud/sit/761/ncs540/NCS540-iosxr-k9-7.6.1.tar /misc/disk1/
```

- Verify the md5 checksum of the tar/individual rpms with the original MD5 values on CCO

```
[xr-vm_node0_RP0_CPU0:/misc/disk1]$md5sum NCS540-iosxr-k9-7.6.1.tar
```

- Perform ‘install add’ of 761 tar file:

```
RP/0/RP0/CPU0:ROUTER#install add source harddisk: NCS540-iosxr-k9-7.6.1.tar
```

- Take a note of the install operation id generated by the add operation in previous step

```
Install operation 185 finished successfully
```

- Prepare the packages added before

```
RP/0/RP0/CPU0:ROUTER#install prepare id 185
```

- Check if install prepare is successful

```
RP/0/RP0/CPU0:ROUTER#show install prepare
```

- Check ‘show install log’ is successful and for any errors

```
RP/0/RP0/CPU0:ROUTER#show install log 186
```

- Activate all the packages

```
RP/0/RP0/CPU0:ROUTER#install activate
```

- Router will reload at the end of activation to start using the new packages.



Note

This operation may take up to 30 minutes to complete.

- Verify that all the packages are installed correctly in XR and SysAdmin

```
RP/0/RP0/CPU0:ROUTER#show install active
sysadmin-vm:0_RP0# show install active
```

- Execute ‘install commit’ to commit the newly active software (install commit is required after any install activate operation else after router reload, nodes will go back to previously committed software)

```
RP/0/RP0/CPU0:ROUTER#install commit
```

- Verify system stability through commands described under Check [System Stability](#) section (3.1) after router comes up with new software
- Verify show version to check router is upgraded.

```
RP/0/RP0/CPU0:ROUTER#show version
```

- Check to see if there were any failed startup configurations.

```
RP/0/RP0/CPU0:ROUTER#show configuration failed startup
```

- Add recommended SMUs for 7.6.1 if not already in initial tarball (optional)

```
RP/0/RP0/CPU0:ROUTER#install add source harddisk: <mandatory SMU tar file for 7.6.1>
```

- Activate the recommended SMUs (If recommended smu's were added)

```
RP/0/RP0/CPU0:ROUTER#install activate id <add id of previous step>
```

- Enter 'yes' to reload prompt

After system comes up from reload, execute 'install commit'.

'Install source' CLI Method

All System Upgrade related install operations should be done in the XR VM plane. Skip this section if section ['Software Downgrade – Classic Method'](#) has been performed.

- Download 7.6.1 mini ISO, packages tar and SMUs from CCO. Copy tar file to tftp / scp / ftp server directory.
- Extract tar file to the directory. Also, extract all 761 mandatory SMUs and copy to the same directory.

```
sit-auto:185>tar -tvf NCS540-iosxr-k9-7.6.1.tar
```

- Verify the md5 checksum of the tar/individual rpms with the original MD5 values posted on CCO

```
[xr-vm_node0_RP0_CPU0:/misc/disk1]$md5sum NCS540-iosxr-k9-7.6.1.tar
```

- Perform System Upgrade using 'install source' CLI.

```
RP/0/RP0/CPU0:ROUTER#install source scp://root@123.100.103.28/auto/tftp-gud/sit/7.6.1/ncs540/ NCS540-iosxr-k9-7.6.1.tar
```

- Respond 'yes' to the reload prompt. This step can be skipped if no prompt option was used.
- After user enter 'yes' to the reload prompt router will reload at the end of activation to start using the new packages. [This step can be skipped if no prompt option was used]



Note

This operation may take up to 30 minutes to complete.

- Verify that all the packages are installed correctly in XR and sysadmin

```
RP/0/RP0/CPU0:ROUTER#show install active
```

- Verify show version to check router is downgraded to 761.

```
RP/0/RP0/CPU0:ROUTER# show version
```

- Execute 'install commit' to commit the newly active software (install commit is required after any install activate operation else after router reload, nodes will go back to previously committed software)

```
RP/0/RP0/CPU0:ROUTER# install commit
```

- Verify system stability through commands described under Check [System Stability](#) section (3.1) after router comes up with new software
- Check to see if there were any failed startup config.

```
RP/0/RP0/CPU0:ROUTER# show configuration failed startup
```

Post-Downgrade Tasks

- Disk cleanup: Once software upgrade has been completed, disk space can be recovered by removing any inactive packages that are no longer needed (if the packages are required at a later time, they can be re-added):

```
RP/0/RP0/CPU0:ROUTER# install remove inactive all
```

- Verify/fix configuration file system (mandatory):

```
RP/0/RP0/CPU0:ROUTER# cfs check
```

- Verify fpd versions running are current:

```
RP/0/RP0/CPU0:ROUTER# show hw-module fpd
```

- Restore IGP metric if changed before the upgrade (this is done from xr vm)

OSPF

```
RP/0/RP0/CPU0:ROUTER# (config-ospf)# no max-metric router-lsa
```

ISIS

```
RP/0/RP0/CPU0:ROUTER# (config-isis)# no set-overload-bit
```

Caveats

1. CSCvz12460 - LC VM is not up after downgrade on 16GB NCS540.

To avoid this issue, please load SMU of CSCvx16766.

Perform below process to recover if the above SMU is not loaded and issue is seen:

- Check "show hw-module fpd" command and status of MB-MIFPGA is in "NOT Ready" state.
- Perform below operation to recover

```
admin
attach location 0/RP0
```

```
sed -i -e "s;VIRT_RP_MEM=4194304;VIRT_RP_MEM=1048576;" /etc/init.d/calvados_bootstrap.cfg
exit
hw-module location all reload force
```

Field Programmable Versions

		FPD Versions - Release									
PID	FPD Device	7.3.1	7.3.2	7.4.1	7.4.2	7.5.1	7.5.2	7.6.1	7.6.2	7.7.1	7.7.2
N540-24Z8Q2C-M	Bootloader	1.13	1.14	1.13	1.14	1.14	1.14	1.16	1.16	1.16	1.16
	CPU-IOFPGA	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.1	0.1	0.1
	MB-IOFPGA	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.26	0.26
	MB-MIFPGA	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	SATA-M500IT-MU-B	NA	4	NA	4	4	4	4	4	4	4
N540-ACC-SYS	Bootloader	1.13	1.14	1.13	1.14	1.14	1.14	1.16	1.16	1.16	1.16
	CPU-IOFPGA	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.1	0.1	0.1
	MB-IOFPGA	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.26	0.26
	MB-MIFPGA	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	SATA-M500IT-MU-B	NA	4	NA	4	4	4	4	4	4	4



Note

FPD versions on the boards shipped by manufacturing may have higher versions than the fpd package integrated in XR



Note

Auto FPD upgrade is supported on NCS540