Release Notes for Cisco NCS 5500 Series Routers, IOS XR Release 7.8.2

Revised: March 23, 2023

Network Convergence System 5500 Series Routers

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Note Cisco IOS XR Release 7.8.2 is an Extended Maintenance Release of Cisco IOS XR Release 7.8.1 for Cisco NCS 5500 Series routers. For more details on the Cisco IOS XR release model and associated support, see Guidelines for Cisco IOS XR Software.

What's New in Cisco IOS XR Release 7.8.2

Cisco IOS XR Release 7.8.2 is an extended maintenance release for Cisco NCS 5500 Series routers. There are no new software features or hardware introduced in this release.

For more details on the Cisco IOS XR release model and associated support, see Guidelines for Cisco IOS XR Software.

Caveats

These caveats are applicable for Cisco IOS XR Software:

Table 1: Cisco NCS 5500 Series Router Specific Bugs

Bug ID	Headline
CSCwe18113	PLATFORM-PLAT_FIB-3-HW_PROG_ERROR with reason NoResrc seen on core router P1_5504
CSCwe18131	HW Programming failed for table,mplslabel, failure reason UnknownErr after BE flap or route churning.

Release Package

This table lists the Cisco IOS XR Software feature set matrix (packages) with associated filenames.

Visit the Cisco Software Download page to download the Cisco IOS XR software images.

Table 2: Release 7.8.2 TAR files for Cisco NCS 5500 Series Router

Feature Set	Filename
NCS 5500 IOS XR Software 3DES	NCS5500-iosxr-k9-7.8.2.tar
NCS 5500 IOS XR Software	NCS5500-iosxr-7.8.2.tar
NCS 5500 IOS XR Software	NCS5500-docs-7.8.2.tar

Table 3: Release 7.8.2 Packages for Cisco NCS 5700 Series Router

Feature Set	Filename
NCS 5700 IOS XR Software	ncs5700-x64-7.8.2.iso
NCS 5700 IOS XR Software (only k9 RPMs)	ncs5700-k9sec-rpms.7.8.2.tar
NCS 5700 IOS XR Software Optional Package	NCS5700-optional-rpms.7.8.2.tar This TAR file contains the following RPMS: • optional-rpms/cdp/* • optional-rpms/eigrp/* • optional-rpms/telnet/*

Determine Software Version

To verify the software version running on the router, use **show version** command in the EXEC mode.

```
Router# show version
Cisco IOS XR Software, Version 7.8.2
Copyright (c) 2013-2023 by Cisco Systems, Inc.

Build Information:
 Built By     : ingunawa
 Built On     : Wed Mar 15 11:17:07 PDT 2023
 Built Host   : iox-ucs-053
 Workspace    : /auto/srcarchive13/prod/7.8.2/ncs5500/ws
 Version      : 7.8.2
 Location     : /opt/cisco/XR/packages/
 Label        : 7.8.2

cisco NCS-5500 () processor
System uptime is 27 minutes
```

Determine Firmware Support

Use the **show hw-module fpd** command in EXEC and Admin mode to view the hardware components with their current FPD version and status. The status of the hardware must be CURRENT; Running and Programed version must be the same.

Note You can also use the **show fpd package** command in Admin mode to check the fpd versions.

This sample output is for **show hw-module fpd** command from the Admin mode:

```
sysadmin-vm:0_RP0# show hw-module fpd
                                                        FPD Versions
                                                        ==============
Location  Card type       HWver FPD device      ATR Status     Run     Programd
-------------------------------------------------------------------------------
0/2       NC57-18DD-SE    1.1   Bootloader          CURRENT    1.03    1.03
0/2       NC57-18DD-SE    1.1   DBFPGA              CURRENT    0.14    0.14
```

```
0/2        NC57-18DD-SE    1.1    IOFPGA            CURRENT      0.22      0.22
0/2        NC57-18DD-SE    1.1    SATA-INTEL_240G   CURRENT   1132.00   1132.00
0/5        NC57-24DD       1.1    Bootloader        CURRENT      1.03      1.03
0/5        NC57-24DD       1.1    DBFPGA            CURRENT      0.14      0.14
0/5        NC57-24DD       1.1    IOFPGA            CURRENT      0.23      0.23
0/5        NC57-24DD       1.1    SATA-INTEL_240G   CURRENT   1132.00   1132.00
0/RP0      NC55-RP         1.1    Bootloader        CURRENT      9.31      9.31
0/RP0      NC55-RP         1.1    IOFPGA            CURRENT      0.09      0.09
0/RP0      NC55-RP         1.1    SATA-M600-MU      CURRENT      6.00      6.00
0/RP1      NC55-RP         1.0    Bootloader        CURRENT      9.31      9.31
0/RP1      NC55-RP         1.0    IOFPGA            CURRENT      0.09      0.09
0/RP1      NC55-RP         1.0    SATA-M600-MU      CURRENT      6.00      6.00
0/FC0      NC55-5508-FC2   1.0    Bootloader        CURRENT      1.80      1.80
0/FC0      NC55-5508-FC2   1.0    IOFPGA            CURRENT      0.19      0.19
0/FC0      NC55-5508-FC2   1.0    SATA-M5100        CURRENT     75.00     75.00
0/FC1      NC55-5508-FC2   1.0    Bootloader        CURRENT      1.80      1.80
0/FC1      NC55-5508-FC2   1.0    IOFPGA            CURRENT      0.19      0.19
0/FC1      NC55-5508-FC2   1.0    SATA-M5100        CURRENT     75.00     75.00
0/FC2      NC55-5508-FC2   1.0    Bootloader        CURRENT      1.80      1.80
0/FC2      NC55-5508-FC2   1.0    IOFPGA            CURRENT      0.19      0.19
0/FC2      NC55-5508-FC2   1.0    SATA-M5100        CURRENT     75.00     75.00
0/FC3      NC55-5508-FC2   1.0    Bootloader        CURRENT      1.80      1.80
0/FC3      NC55-5508-FC2   1.0    IOFPGA            CURRENT      0.19      0.19
0/FC3      NC55-5508-FC2   1.0    SATA-M5100        CURRENT     75.00     75.00
0/FC5      NC55-5508-FC2   1.0    Bootloader        CURRENT      1.80      1.80
0/FC5      NC55-5508-FC2   1.0    IOFPGA            CURRENT      0.19      0.19
0/FC5      NC55-5508-FC2   1.0    SATA-M5100        CURRENT     75.00     75.00
0/SC0      NC55-SC         1.5    Bootloader        CURRENT      1.74      1.74
0/SC0      NC55-SC         1.5    IOFPGA            CURRENT      0.10      0.10
0/SC1      NC55-SC         1.5    Bootloader        CURRENT      1.74      1.74
0/SC1      NC55-SC         1.5    IOFPGA            CURRENT      0.10      0.10
```

Important Notes

- The total number of bridge-domains (2*BDs) and GRE tunnels put together should not exceed 1518. Here the number 1518 represents the multi-dimensional scale value.

- The offline diagnostics functionality is not supported in NCS 5500 platform. Therefore, the **hw-module service offline location** command will not work. However, you can use the **(sysadmin)# hw-module shutdown location** command to bring down the LC.

- BGP-Labeled Unicast (LU) Prefix-Independent Convergence (PIC) auto-protection feature may cause equal cost multipath (ECMP) FEC NPU resource exhaustion on BGP peering devices for IPv4/IPv6 addresses. From Cisco IOS XR Release 7.8.2 onwards, the auto-protection feature for BGP-LU multipath PIC is disabled by default. To enable this feature, use the **hw-module fib bgp-mp-pic auto-protect enable** command. After executing the command, you must reload the router.For more information, see *BGP-LU Multipath PIC with Auto Protection* section in *BGP Prefix Independent Convergence* chapter in *BGP Configuration Guide for Cisco NCS 5500 Series Routers.*

Supported Transceiver Modules

To determine the transceivers that Cisco hardware device supports, refer to the Transceiver Module Group (TMG) Compatibility Matrix tool.

Supported Modular Port Adapters

For the compatibility details of Modular Port Adapters (MPAs) on the line cards, see the datasheet of that specific line card.

Cisco IOS XR Error messages

To view, search, compare, and download Cisco IOS XR Error Messages, refer to the Cisco IOS XR Error messages tool.

Cisco IOS XR MIBs

To determine the MIBs supported by platform and release, refer to the Cisco IOS XR MIBs tool.

Upgrading Cisco IOS XR Software

Cisco IOS XR Software is installed and activated from modular packages, allowing specific features or software patches to be installed, upgraded, or downgraded without affecting unrelated processes. Software packages can be upgraded or downgraded on all supported card types, or on a single card (node).

Before starting the software upgrade, use the **show install health** command in the admin mode. This command validates if the statuses of all relevant parameters of the system are ready for the software upgrade without interrupting the system.

Note
- If you use a TAR package to upgrade from a Cisco IOS XR release prior to 7.x, the output of the **show install health** command in admin mode displays the following error messages:

```
sysadmin-vm:0_RSP0# show install health
. . .
ERROR /install_repo/gl/xr -rw-r--r--. 1 8413 floppy 3230320 Mar 14 05:45 <platform>-isis-2.2.0.0-r702.x86_64
ERROR /install_repo/gl/xr -rwxr-x---. 1 8413 165 1485781 Mar 14 06:02 <platform>-k9sec-3.1.0.0-r702.x86_64
ERROR /install_repo/gl/xr -rw-r--r--. 1 8413 floppy 345144 Mar 14 05:45 <platform>-li-1.0.0.0-r702.x86_64
```

You can ignore these messages and proceed with the installation operation.

- Quad configurations will be lost when you perform a software downgrade on a NCS-55A1-48Q6H device from IOS XR Release 7.5.1 onwards to a release prior to IOS XR Release 7.5.1 due to non-backward compatibility change. The lost configuration can be applied manually after the downgrade.

Note A quad is a group of four ports with common speeds, 1G/10G or 25G. You can configure the ports speed fo by using the **hw-module quad** command.

Production Software Maintenance Updates (SMUs)

A production SMU is a SMU that is formally requested, developed, tested, and released. Production SMUs are intended for use in a live network environment and are formally supported by the Cisco TAC and the relevant development teams. Software bugs identified through software recommendations or Bug Search Tools are not a basis for production SMU requests.

For information on production SMU types, refer the Production SMU Types section of the *IOS XR Software Maintenance Updates (SMUs)* guide.

Related Documentation

The most current Cisco NCS 5500 router documentation is located at the following URL:

https://www.cisco.com/c/en/us/td/docs/iosxr/ios-xr.html