Release Notes for Cisco NCS 1001, IOS XR Release 7.2.1

First Published: 2020-10-23

Note Explore the Content Hub, the all new portal that offers an enhanced product documentation experience.

- Use faceted search to locate content that is most relevant to you.
- Create customized PDFs for ready reference.
- Benefit from context-based recommendations.

Get started with the Content Hub at content.cisco.com to craft a personalized documentation experience.

Do provide feedback about your experience with the Content Hub.

What's New in Cisco IOS XR Release 7.2.1

Software

Back Reflection Parameter

Back Reflection parameter is added to the output of **show controllers ots** command. This parameter reports the back reflection on the line TX port on the booster.

See Display Parameters of OTS OCH Controllers.

Upgrade of EDFA and PSM OpenConfig Models

The versions of EDFA and PSM OpenConfig models are upgraded.

OpenConfig Optical Models	Supported Version in R7.1.1	Supported Version in R7.2.1
openconfig-channel-monitor.yang	0.3.2	0.4.0
openconfig-optical-amplifier.yang	0.4.1	0.5.0
openconfig-transport-line-protection.yang	0.4.1	0.4.1

A complete list of supported open configuration models is available at https://github.com/openconfig/public/tree/master/release/models/optical-transport.

OpenConfig Telemetry

The following sensor paths are supported in telemetry configuration on NCS 1001 node.

- openconfig-optical-amplifier:optical- amplifier/amplifiers/amplifier

- openconfig-transport-line-protection aps/aps-modules/aps-module

- openconfig-channel-monitor:channel-monitors/channel-monitor/channels

See OpenConfig Sensor Paths Supported for MDT in NCS 1001.

Caveats

Open Caveats

Table 1: Open Caveats

Caveat ID Number	Description
CSCvt01074	gRPC get operation on transceiver model does not return correct data.

Bug Search Tool

Cisco Bug Search Tool (BST) is a web-based tool that acts as a gateway to the Cisco bug tracking system that maintains a comprehensive list of defects and vulnerabilities in Cisco products and software. BST provides you with detailed defect information about your products and software.

Supported Packages and System Requirements

Release 7.2.1 Packages

Table 2: Release 7.2.1 Packages

Feature Set	Filename	Description
Composite Package		
Cisco IOS XR Core Bundle + Manageability Package	ncs1001-iosxr-px-k9-7.2.1.tar	Contains required core packages, including operating system, Admin, Base, Forwarding, SNMP Agent, FPD, and Alarm Correlation and Netconf-yang, Telemetry, Extensible Markup Language (XML) Parser, HTTP server packages.
Individually Installable Optional Packages		

Cisco IOS XR Security Package	ncs1001-k9sec-1.0.0.0-r721.x86_64.rpm (part of ncs1k-iosxr-px-k9-7.2.1.tar)	Support for Encryption, Decryption, IP Security (IPsec), Secure Shell (SSH), Secure Socket Layer (SSL), and Public-key infrastructure (PKI).

See Install Packages.

System Requirements

Memory Configuration

At least 16 GB RAM

Determine Software Version

Log in to NCS 1001 and enter the **show version** command:

```
RP/0/RP0/CPU0:ios#show version
Mon Jul 28 15:52:01.424 UTC
Cisco IOS XR Software, Version 7.2.1
Copyright (c) 2013-2020 by Cisco Systems, Inc.

Build Information:
Built By     : deenayak
Built On     : Mon Jul 28 01:19:52 PST 2020
Built Host   : iox-lnx-071
Workspace    : /auto/srcarchive15/prod/7.2.1/ncs1001/ws
Version      : 7.2.1
Location     : /opt/cisco/XR/packages/
Label        : 7.2.1
cisco NCS-1001 () processor
```

Determine Firmware Support

Log in to NCS 1001 and enter the **show hw-module fpd** command:

Use the **show hw-module fpd** command in EXEC 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.

The following shows the output of **show hw-module fpd** command for NCS 1001 with EDFA (slot 1 and 3) and PSM (slot 2) of vendor 1.

```
RP/0/RP0/CPU0:ios#show hw-module fpd
Thu Jul 16 15:28:28.146 CEST
        FPD Versions

                                                               =================
Location      Card type          HWver    FPD device      ATR     Status      Running
   Programd
------------------------------------------------------------------------------------------
0/0           NCS1001-K9         0.1      Control_BKP      B      CURRENT
   1.10
0/0           NCS1001-K9         0.1      Control_FPGA            CURRENT      1.10
   1.10
0/1           NCS1K-EDFA         0.0      FW_EDFAv1               CURRENT      1.56
   1.56
0/2           NCS1K-PSM          0.0      FW_PSMv1                CURRENT      1.51
   1.51
0/3           NCS1K-EDFA         0.0      FW_EDFAv1               CURRENT      1.56
```

```
      1.56
0/RP0          NCS1K-CNTLR2           0.1        BIOS_Backup      BS      CURRENT       14.60
      14.60
0/RP0          NCS1K-CNTLR2           0.1        BIOS_Primary     S       CURRENT       14.60
      14.60
0/RP0          NCS1K-CNTLR2           0.1        Daisy_Duke_BKP   BS      CURRENT
      0.20
0/RP0          NCS1K-CNTLR2           0.1        Daisy_Duke_FPGA  S       CURRENT       0.20
      0.20
```

The following shows the output of **show hw-module fpd** command for NCS 1001 with EDFA (slot 1 and 3) and PSM (slot 2) of vendor 2.

```
RP/0/RP0/CPU0:150#show hw-module fpd
Thu Jul 16 15:28:31.146 CEST

                                                                  FPD Versions
                                                                  =================
Location   Card type           HWver     FPD device      ATR     Status   Running
Programd
--------------------------------------------------------------------------------------
0/0        NCS1001-K9          0.1       Control_BKP      B       CURRENT  1.10
0/0        NCS1001-K9          0.1       Control_FPGA             CURRENT  1.10
1.10
0/1        NCS1K-EDFA          0.0       FW_EDFAv2                CURRENT  0.40
0.40
0/2        NCS1K-PSM           0.0       FW_PSMv2                 CURRENT  0.16
0.16
0/3        NCS1K-EDFA          0.0       FW_EDFAv2                CURRENT  0.40
0.40
0/RP0      NCS1K-CNTLR2        0.1       BIOS_Backup      BS      CURRENT  14.60
14.60
0/RP0      NCS1K-CNTLR2        0.1       BIOS_Primary     S       CURRENT  14.60
14.60
0/RP0      NCS1K-CNTLR2        0.1       Daisy_Duke_BKP   BS      CURRENT
0.20
0/RP0      NCS1K-CNTLR2        0.1       Daisy_Duke_FPGA  S       CURRENT  0.20
0.20
```

The following shows the output of **show hw-module fpd** command with the OTDR card in slot 1.

```
RP/0/RP0/CPU0:150#show hw-module fpd
Thu Jul 16 15:28:31.146 CEST
......
0/1        NCS1K-OTDR          0.0    FW_OTDR_p          CURRENT   6.02    6.02
0/1        NCS1K-OTDR          0.0    FW_OTDR_s          CURRENT   1.51    1.51
.....
```

Other Important Information

Mandatory Upgrade Notes

Please read the following before upgrading the software to avoid firmware corruption.

- **Disable auto FPD upgrade before upgrading the software from Release 6.3.x and Release 6.5.x to Release 7.0.1, Release 7.1.1, Release 7.1.2, and Release 7.2.1.**

Note   The BIOS and Daisyduke FPD upgrade from Release 6.3.x and Release 6.5.x to Release 7.1.1, Release 7.1.2, and Release 7.2.1 must be executed under admin by the following command:

```
sysadmin-vm:0_RP0#upgrade hw-module location 0/RP0 fpd all
```

Supported MIBs

The following MIBs are supported in NCS 1001:

- CISCO-OPTICAL-OTS-MIB

- CISCO-CONFIG-MAN-MIB

- CISCO-FLASH-MIB

- CISCO-ENTITY-REDUNDANCY-MIB

- CISCO-SYSTEM-MIB

- CISCO-ENTITY-ASSET-MIB

- EVENT-MIB

- DISMAN-EXPRESSION-MIB

- CISCO-FTP-CLIENT-MIB

- NOTIFICATION-LOG-MIB

- CISCO-RF-MIB

- CISCO-TCP-MIB

- UDP-MIB

- CISCO-OTN-IF-MIB

- CISCO-ENHANCED-MEMPOOL-MIB

- CISCO-PROCESS-MIB

- CISCO-SYSLOG-MIB

- ENTITY-MIB

- CISCO-ENTITY-FRU-CONTROL-MIB

- CISCO-IF-EXTENSION-MIB

- RMON-MIB

- CISCO-OPTICAL-MIB

- CISCO-ENTITY-SENSOR-MIB