

Release Notes for Cisco NCS 1002, IOS XR Release 7.3.1

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What's New in Cisco IOS XR Release

Cisco is continuously enhancing the product with every release and this section covers a brief description of key features and enhancements. It also includes links to detailed documentation, where available.

Feature	Description
Configuration	
10sec PM buckets	<p>Performance monitoring parameters for the Optics, Ethernet, and Coherent DSP controllers in 10 second intervals are available. This new bucket for performance monitoring allows you to gather, store, and report performance data with higher granularity.</p> <p>Commands modified:</p> <ul style="list-style-type: none"> • pm • controller optics • controller GigECtrlr • controller coherentDSP • show controllers
Data Models	

Feature	Description
NETCONF Support for READ, WRITE, and Execute or Administrative Commands.	Support for IPv4 and IPv6 Ping test using the Cisco-IOS-XR-ping-act YANG model, instead of using CLI commands, is available. RPC (Remote Procedure Call) Request and Response messages are used to do the ping test, which is automated using scripts. This enables you to perform the ping test in a less time-consuming manner and to enhance network scalability.
OC (Open Configuration) Model for Client FEC and Laser Squelch	The OC model for configuring client FEC and Laser Squelch is available. This feature enables you to perform the configuration using scripts, which is less time-consuming. Also, the Open Configuration model supports the use of vendor-neutral data models to configure and manage the network.
OC (Open Configuration) Terminal Device Revision	The Open Configuration terminal device revision to 1.7.2 allows you to provide LLDP support on the client optics. This feature allows you to learn LLDP neighbors and the topology of the devices for Operations, Administration, and Maintenance (OAM) purposes.

Caveats

Open Caveats

Table 1: Open Caveats

Caveat ID Number	Description
CSCvx36865	tamd_proc crashes after admin reload
CSCvw34282	Optics Controller does not show the admin state disable when the optics is shutdown

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 7.3.1 Packages

Table 2: Release 7.3.1 Packages

Feature Set	Filename	Description
Composite Package		

Cisco IOS XR Core Bundle + Manageability Package	ncs1k-iosxr-px-k9-7.3.1.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	ncs1k-k9sec-3.1.0.0-r731.x86_64.rpm (part of ncs1k-iosxr-px-k9-7.3.1.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 1002 and enter the **show version** command:

```
RP/0/RP0/CPU0:ios#sh version
Thu Feb 25 15:10:05.161 IST
Cisco IOS XR Software, Version 7.3.1.47I
Copyright (c) 2013-2021 by Cisco Systems, Inc.

Build Information:
Built By      : ingunawa
Built On     : Fri Feb 19 23:55:25 PST 2021
Built Host   : iox-lnx-068
Workspace    : /auto/iox-lnx-068-san1/prod/7.3.1.47I.SIT_IMAGE/ncs1k/ws
Version     : 7.3.1.47I
Location    : /opt/cisco/XR/packages/
Label      : 7.3.1.47I

cisco NCS-1002 () processor
System uptime is 2 days 22 hours 9 minutes
.
```

Determine Firmware Support

Log in to NCS 1002 and enter the **show hw-module fpd** command:

```
RP/0/RP0/CPU0:ios#show hw-module fpd
Wed Feb 10 19:35:29.371 IST

Auto-upgrade:Disabled
```

```
FPD Versions
=====
```

Location	Card type	HWver	FPD device	ATR Status	Running Programd	
0/0	NCS1002-K9	1.2	CDSP_PORT_05	CURRENT	3.77	3.77
0/0	NCS1002-K9	1.2	CDSP_PORT_06	CURRENT	3.77	3.77
0/0	NCS1002-K9	1.2	CDSP_PORT_12	CURRENT	3.77	3.77
0/0	NCS1002-K9	1.2	CDSP_PORT_13	CURRENT	3.77	3.77
0/0	NCS1002-K9	1.2	CDSP_PORT_19	CURRENT	3.77	3.77
0/0	NCS1002-K9	1.2	CDSP_PORT_20	CURRENT	3.77	3.77
0/0	NCS1002-K9	1.2	CDSP_PORT_26	CURRENT	3.77	3.77
0/0	NCS1002-K9	1.2	CDSP_PORT_27	CURRENT	3.77	3.77
0/0	NCS1002-K9	2.0	CFP2_PORT_05	CURRENT	4.40	4.40
0/0	NCS1002-K9	2.1	CFP2_PORT_06	CURRENT	5.52	5.52
0/0	NCS1002-K9	2.1	CFP2_PORT_12	CURRENT	5.52	5.52
0/0	NCS1002-K9	0.0	CFP2_PORT_13	CURRENT	1.01	1.01
0/0	NCS1002-K9	2.1	CFP2_PORT_19	CURRENT	5.52	5.52
0/0	NCS1002-K9	2.1	CFP2_PORT_20	CURRENT	5.52	5.52
0/0	NCS1002-K9	4.2	CFP2_PORT_26	CURRENT	3.20	3.20
0/0	NCS1002-K9	2.1	CFP2_PORT_27	CURRENT	5.52	5.52
0/0	NCS1002-K9	0.1	CTRL_BKP_LOW	B CURRENT		2.23
0/0	NCS1002-K9	0.1	CTRL_BKP_UP	B CURRENT		2.23
0/0	NCS1002-K9	0.1	CTRL_FPGA_LOW	CURRENT	2.23	2.23
0/0	NCS1002-K9	0.1	CTRL_FPGA_UP	CURRENT	2.23	2.23
0/RP0	NCS1K-CNTLR	0.1	BIOS_Backup	BS CURRENT		15.10
0/RP0	NCS1K-CNTLR	0.1	BIOS_Primary	S CURRENT	15.10	15.10
0/RP0	NCS1K-CNTLR	0.1	Daisy_Duke_BKP	BS CURRENT		0.20
0/RP0	NCS1K-CNTLR	0.1	Daisy_Duke_FPGA	S CURRENT	0.20	0.20
0/PM0	NCS1K-2KW-AC	0.0	PO-PrimCU	CURRENT	4.00	4.00
0/PM1	NCS1K-2KW-AC	0.0	PO-PrimCU	CURRENT	4.00	4.00

```
RP/0/RP0/CPU0:ios#sh version
Wed Feb 10 19:35:38.274 IST
Cisco IOS XR Software, Version 7.3.1.45I
Copyright (c) 2013-2021 by Cisco Systems, Inc.
```

```
Build Information:
  Built By      : ingunawa
  Built On     : Tue Feb  9 11:45:12 PST 2021
  Built Host   : iox-lnx-068
  Workspace    : /auto/iox-lnx-068-san1/prod/7.3.1.45I.SIT_IMAGE/ncs1k/ws
  Version     : 7.3.1.45I
  Location    : /opt/cisco/XR/packages/
  Label       : 7.3.1.45I
```

```
cisco NCS-1002 () processor
System uptime is 3 hours 37 minutes
```

Other Important Information

Mandatory Upgrade Notes

Please read the following before upgrading the software to Release 7.3.1.

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

Supported MIBs

The following MIBs are supported in NCS 1002:

- 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
- RADIUS-AUTH-CLIENT-MIB
- RADIUS-ACC-CLIENT-MIB
- IEEE8023-LAG-MIB
- CISCO-TCP-MIB
- UDP-MIB
- CISCO-BULK-FILE-MIB
- CISCO-CONTEXT-MAPPING-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
- LLDP-MIB
- CISCO-ALARM-MIB