Release Notes for Cisco NCS 1000 Series, IOS XR Release 7.11.1

First Published: 2023-12-08

Last Modified: 2024-04-10

Network Convergence System 1000 Series

NCS 1014

Cisco NCS 1014 is a new platform that provides a universal transponder solution that can be placed in data centers and central offices. The NCS 1014 provides best-in-class performance for metro, long-haul, and submarine applications while being simple to deploy and manage with complete life-cycle automation and real-time visibility.

Cisco NCS 1014 chassis supports more power for each line card. The chassis has two improved, field-replaceable AC and DC power supply units that support up to 2.5kW per system and 580W for each line card.

Line Card	Description
NCS1K14-2.4T-K9	The line card occupies one slot in NCS 1014 chassis. The line card works in TXP and MXP mode with 100G and 400G client interfaces with QSFP-DD client ports. The line port is based on Coherent Interconnect Module 8 aka CIM 8. The line port supports a minimum of 400G to 1T with 200G increments. In Release 7.11.1 we support 400, 600,800G and 1T line rates. For more information, see Cisco Network Convergence System 1014 C-Band 2.4T Transponder Line Card Data Sheet.
NCS1K14-CCMD-16-C	The line card is a C-band, 16-port Coherent Colorless Multiplexer De Multiplexer (CCMD). It supports any signal distribution between 191250 and 196200 GHz, for example, the 64 channels grid with 75-GHz spacing.
NCS1K14-CCMD-16-L	The line card is an L-band, 16-port CCMD. It supports any signal distribution between 186025 and 191000 GHz, for example, the 64 channels grid with 75-GHz spacing.
NCS1K4-1.2T-K9	The line card is a single slot C-Band DWDM Transponder card that provides up to 12 100GbE/OTU4 client ports and up to two 600G trunk ports. For more information, see Cisco Network Convergence System 1004 C-Band 1.2T Transponder Line Card Data Sheet.

Table 1: Supported Line Cards

Table 2: Supported Pluggables

Line Card	Pluggable
NCS1K14-2.4T-K9	• QDD-400G-FR4-S
	• QDD-400G-AOCxM
	• QDD-400G-DR4-S
	• QDD-4X100G-LR-S

Software Functionalities

NCS 1014 platform supports the following software features and functionalities:

- **Transponder and Muxponder Card Mode Configuration:** The line card can be configured as a Muxponder with a capacity ranging from 400G to 1T. There are two trunk ports available that can be configured independently. Trunk port 0 is associated with client ports 1, 2, and 3, while Trunk port 7 is associated with client ports 4, 5, and 6.
 - AINS Support: AINS (Automatic-In-Service) allows the controller to automatically move the line card interfaces to AINS state after the maintenance window is completed. The controller automatically moves the line card interfaces to In-Service (IS) state after the soak time period is completed.
 - **FEC Support:** Forward Error Correction (FEC) is a technique used to ensure accuracy of data transmission over an unreliable or noisy channel. The transmitter encodes the data using Error-correcting Codes, enabling the receiver to recognize and correct errors without requiring the data to be transmitted again.
 - Idle Insertion: Idle insertion delays Local Fault propagation while waiting for the trunk interface to resolve and stabilize.
 - Laser Squelching: Enabling laser squelching shuts down the laser during trunk faults such as Loss of Signal (LOS) or Loss of Frame (LOF) and raises a SQUELCHED alarm on the client port.
 - Link Layer Discovery Protocol (LLDP): LLDP on the management interface requires a system to establish an LLDP connection with other devices over the management interface. This connection is used to exchange information about the neighboring devices, which helps to determine the topology of the network. This information is essential for Operations, Administration, and Maintenance (OAM) purposes.
 - MAC Address Snooping on Client Ports: MAC address snooping allows you to learn the MAC address of the neighbor that is connected to client ports.
 - **Pseudo Random Binary Sequence (PRBS):** The PRBS feature allows you to perform data integrity checks between the trunk links of NCS1014 without enabling actual client traffic.
 - **Trail Trace Identifier:** Trail Trace Identifier (TTI) is used to identify the signal's path from the source to the destination within a network. The TTI sent or expected string can only be configured in ASCII string format. In case the expected TTI string does not match the received TTI trace string, it can cause the controller to go down and trigger the OTUK-TIM alarm. CoherentDSP controllers can be configured to use TTI.

- **Supported Functionalities of CCMD-16-C and CCMD-16-L Line Cards :** The software supports Variable Optical Attenuator (VoA), power monitoring and reporting of parameters to the controllers at the OCH and OMS level. It helps in configuring the amplifier parameters for optimizing signal transmissions. The software also supports In-band and out-of-band tone detection and monitoring and reporting of alarms.
 - **Connection Verification Support:** This feature enables verifying the out-of-band (OOB) and in-band (IB) connections in the CCMD-16-L line card using the tone signal generated by the OLT-C line card, to avoid miscabling during the node installation.
- **Headless Mode:** In the event of process restarts, CPU reloads or removal, NCS1014 operates in headless mode for a maximum of 72 hours. During this period, traffic will not be affected, despite the control plane being inactive.
- System Health Check: The health check service facilitates analyzing the system's health by tracking, monitoring, and analyzing crucial metrics for the proper functioning of NCS 1014.

Cisco Optical Site Manager

Cisco Optical Site Manager is an application that allows you to view and access the topology of all the optical devices located in the same optical site. It represents a ROADM functionality by aggregating any transponder or muxponder present in the same location.

Key Features:

- Site Aggregation for Optical Sites: Cisco Optical Site Manager allows site aggregation for Optical Sites
 with Cisco NCS 1010 and Cisco NCS 1014 devices. This feature provides a clear view of the topology
 of the optical site and the devices connected to it.
- 2. Site-Level Management: Cisco Optical Site Manager collects and manages site-level information, including inventory details, site topology, performance monitoring, and correlated alarms.
- **3.** Web-Based User Interface (UI): Cisco Optical Site Manager offers a web-based user interface (Web UI) that provides efficient management control for NCS 1000 devices and their configurations. This interface allows you to easily view the layout of chassis, cards, and passive devices. Additionally, you can check the active and acknowledged alarms for NCS 1000 devices.
- **4. High Availability:** Cisco Optical Site Manager can be configured with High Availability on two separate devices of the same network. This ensures that node manageability will continue to operate even if a Cisco Optical Site Manager hosting device fails.
- **5. Performance Monitoring:** Cisco Optical Site Manager enables you to keep track of the performance of different cards and chassis that are hosted on the device. You can access both current and historical performance monitoring counters at various intervals.

What's New in Cisco NCS 1000 Series, IOS XR Release 7.11.1

Feature	Description
Hardware Installati	on

I

Feature	Description	
NCS1K-E-ILA-R-C-2 Line Card	The NCS1K-E-ILA-R-C-2 line card is a new addition to the NCS 1010 ILA line card family. An inbuilt West-facing Raman amplifier amplifies the C-band and C+L-band traffic received from the west direction.	
Feature	Description	
Cisco NCS 1010 Sys	stem Setup and Software Installation	
ACL on Management Port	Access Control List (ACL) feature allows you to accept or deny certain devices to connect to the management port and access NCS 1010 devices. This control enhances network security. IPv4 and IPv6 ACLs are supported on the management port.	
	Commands added:	
	• ipv4-access-list	
	• ipv4-access-group	
	• show access-lists-ipv4	
	• ipv6-access-list	
	• ipv6-access-group	
	• show access-lists-ipv6	
NTP Support	Network Time Protocol (NTP) allows the devices to synchronize clocks with the NTF server which maintains the most accurate time. In modern and large networks, time synchronization is critical because every aspect of data transmission, managing, securing, planning, and debugging a network involves determining the time of occurrence of events.	
	Commands added:	
	• ntp server	
	show ntp associations	
	• show ntp status	
Cisco NCS 1010 Da	tapath	
Improved Performance Monitoring	NCS 1010 now measures the power values of Photo Diodes (PDs) at various measurement points at a faster refresh rate to improve the node performance monitoring With the upgraded FPDs, the refresh rate has reduced from 250 ms to 50 ms. This faster refresh rate applies to all the NCS 1010 PIDs for the following line card FPDs	
	• ILA	
	• OLT	
	• Raman-1	
	• Raman-2	

Feature	Description
Threshold Crossing Alert (TCA) for Span Loss	You can now activate TCA reporting and set specific minimum and maximum threshold values for both Tx and Rx span loss across all time intervals.
	This enhancement provides prompt notifications for deviations from normal span loss values, which can be viewed using the show alarms brief system active command.
	To implement this feature, two new parameters slr-cl and slt-cl have been introduced for the pm command.
	Additionally, the output of the show controllers ots R/S/I/Ppm command now captures both the actual and configured threshold values for span loss.
PM History Persistence	PM history parameters for Optics, Ethernet, and coherent DSP controllers are now retained even after operation disruptive events like:
	Various reload procedures
	• Power cycle
	Operating system upgrade of the NCS 1010 chassis
	This functionality maintains prolonged access to performance history that is useful for device health monitoring.
Cisco NCS 1010 Op	tical Applications
Automatic OTDR Scan	An OTDR scan is automatically triggered whenever events such as span fault, span restore, device power cycle, and line card cold reload occur. The automatic scan lets you quickly identify fiber failure type and fault location.
	Commands added to enable and view OTDR results:
	otdr auto-scan [enable disable]
	show olc otdr-status [details]
Configure OSPF cost	The cost of an interface is calculated by default based on its bandwidth; however, you can change the cost of an interface with the cost <i><value></value></i> command. This feature allows you to determine the shortest route within a network when there are two equal-cost routes to the same destination.
Fiber Health Check for Raman Turn-Up	This feature utilizes OTDR results to evaluate whether the optical fiber and allied components are in good condition to withstand high-power transmission by Raman pump. The automatic check is performed before Raman Turn-up to prevent possible damage to the transmission system during Raman amplification.
	Commands introduced:
	otdr raman-turn-up [enable disable]
	olc start-raman-turn-up
	olc force-raman-turn-up

Feature	Description
Optical Return Loss Reporting	The Optical Return Loss (ORL) is now calculated during the OTDR scan and displayed as part of the OTDR results. You can also set the ORL threshold value.
	The ORL represents the total reflected optical power from a complete fiber link while accounting for fiber attenuation. When the ORL exceeds a user-configured threshold value, the OTDR-ABS-ORL-EXCEEDED-TX or OTDR-ABS-ORL-EXCEEDED-RX alarm is raised. You can troubleshoot fiber transmission issues using the ORL value and OTDR results.
	To set the ORL threshold value, the following keywords are added to the controller ots command:
	• otdr rx auto excess-orl-threshold <i>value</i>
	• otdr tx auto excess-orl-threshold <i>value</i>
Troubleshooting	<u> </u>
Improved Error	Error messages that appear during connection verification are now more elaborate to include probable causes of specific errors and configuration failures. You can configure
Messages for Connection Verification Failures	the valid controller parameters using the improved error messages to perform the

YANG Data Models Introduced and Enhanced

We have launched the Yang Explorer tool as an easy reference to view the Data Models (Native, Unified, OpenConfig) supported in IOS XR platforms and releases. You can explore the data model definitions, locate a specific model, and view the containers and their respective lists, leaves, leaf lists, Xpaths, and much more.

Limitation

NCS 1010 and NCS 1014 require an additional reload after USB insertion because the system does not automatically generate a USB boot entry upon user-initiated reload.

Release 7.11.1 Packages



Warning

J Downgrading your software on an NCS 1010 device from a higher version to Cisco IOS XR Release 7.7.1 is a traffic-impacting operation.

Note

Traffic impact and Frame Check Sequence (FCS) errors are observed while downgrading NCS 1010 software from R7.11.x to R7.9.1.

Release 7.11.1 Packages for Cisco NCS 1014

The Cisco IOS XR chassis is composed of a base image (ISO) that provides the XR infrastructure. The ISO image is made up of a set of packages (also called RPMs). These packages are of three types:

- A mandatory package that is included in the ISO
- · An optional package that is included in the ISO
- An optional package that is not included in the ISO



Note

The NCS 1014 and NCS 1010 packages include Cisco Optical Site Manager software.

Feature Set	Filename	Description		
Composite Packa	Composite Package			
Cisco IOS XR Core Bundle + Manageability Package	ncs1010-x64-7.11.1.iso	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 Inst	Individually Installable Packages			
Cisco IOS XR Telnet Package	xr-telnet-7.11.1.x86_64.rpm xr-telnet-ncs1010-7.11.1.x86_64.rpm	Install the xr-telnet-7.11.1.x86_64.rpm and xr-telnet-ncs1010-7.11.1.x86_64.rpm packages to support Telnet.		
Cisco IOS XR Cisco Discovery Protocol (CDP) Package	xr-cdp-7.11.1.x86_64.rpm xr-cdp-ncs1010-7.11.1.x86_64.rpm	Install the xr-cdp-7.11.1.x86_64.rpm and xr-cdp-ncs1010-7.11.1.x86_64.rpm to support CDP.		
COSM Package	xr-cosm-7.11.1v1.0.0-1.x86_64.rpm xr-cosm-82eb6a4d2fa15d0e-7.11.1v1.0.0-1.x86_64.rpm xr-cosm-ncs1010-7.11.1v1.0.0-1.x86_64.rpm xr-cosm-ncs1014-7.11.1v1.0.0-1.x86_64.rpm	Install the xr-cosm-7.11.1v1.0.0-1.x86_64.rpm, xr-cosm-82eb6a4d2fa15d0e-7.11.1v1.0.0-1.x86_64.rpm, xr-cosm-ncs1010-7.11.1v1.0.0-1.x86_64.rpm and xr-cosm-ncs1014-7.11.1v1.0.0-1.x86_64.rpm to support COSM.		

See Install Packages and RPMs.

Caveats

Open Caveats

NCS1014

The following table lists the open caveats for NCS 1014:

Identifier	Headline
CSCwf90494	Pulsar - Default Client Optics Thresholds are not correct
CSCwh15317	NCS1014:PSU alarm Thresholds are not reporting on Kepler
CSCwh13094	CCMD-16 gain config lost post RP reload if extended gain-range config is removed, retaining gain
CSCwi24792	NCS1014:sh environment power not listing RP power in latest 7.11.1/24.1.1 Builds
CSCwh98911	showtech taking more then 20min in scaled setup with telemetry running
CSCwh93688	Observing improper removal alarm on trunk and client ppm as transient during LC warm and cold reboot
CSCwh46213	[7.11.1 Pulsar] Observing PSM switch time is greater than 50ms
CSCwh13094	CCMD-16 gain config lost post RP reload if extended gain-range config is removed, retaining gain

NCS1010

The following table lists the open caveats for NCS 1010:

Identifier	Headline
CSCwh78328	'ILAL_FT_P0_eEDFA0: temperature alarm' alarm reported post LC cold reload
CSCwi08266	Interop 7111_40I & 791:: APC, Gain-Estimator & link-tuner BLOCKED & Traffic was not coming up
CSCwh18231	Unwanted LOS-P active alarms showing for passive module USB-association connected back after 10min
CSCwh13094	CCMD-16 gain config lost post RP reload if extended gain-range config is removed, retaining gain

Cisco Optical Site Manager

The following table lists the open caveats for Cisco Optical Site Manager:

Identifier	Headline
CSCwh87403	[COSM]: Client/trunk admin state on 2.4T card always showing OOS on first provisioning
CSCwi09719	[COSM]: Not possible to configure a frequency with more than one decimal values on 2.4T trunk
CSCwh15749	COSM: Restconf URL or command for retrieving current and historical PM is not working
CSCwi20255	[COSM]:OTN PreFEC and PostFEC PM parameter values not displayed in COSM

Identifier	Headline
CSCwi09710	[COSM]: LPBK secondary state is not shown in webui for 2.4T card
CSCwh52097	Inventory, operational state not auto updated for HW plugged in/out when COSM is managing the device
CSCwh84522	PPM secondary state not reported correctly in WEB-UI and also the refresh button not working
CSCwh92184	OXC in COSM in IS-NR state despite LOS alarm on LINE-RX
CSCwi05339	[COSM]: The trunk baud-rate information is not displayed in the WebUI
CSCwi18866	psd-min and psd-drop configured from cli are not reported by COSM
CSCwi10679	[COSM_7.11.1]: [Netconf/Restconf]-OTDR scan is not working for Degree-2 ILA -C port LINE-2-TX/RX

Using Bug Search Tool

You can use the Cisco Bug Search Tool to search for a specific bug or to search for all bugs in a release.

Procedure

Step 1	Go to the http://tools.cisco.com/bugsearch.
Step 2	Log in using your registered Cisco.com username and password.
	The Bug Search page opens.
Step 3	Use any of these options to search for bugs, and then press Enter (Return) to initiate the search:
	• To search for a specific bug, enter the bug ID in the Search For field.
	• To search for bugs based on specific criteria, enter search criteria, such as a problem description, a feature, or a product name, in the Search For field.
	• To search for bugs based on products, enter or select a product from the Product list. For example, if you enter "WAE," you get several options from which to choose.
	• To search for bugs based on releases, in the Releases list select whether to search for bugs affecting a specific release, bugs that were fixed in a specific release, or both. Then enter one or more release numbers in the Releases field.
Step 4	When the search results are displayed, use the filter tools to narrow the results. You can filter the bugs by status, severity, and so on.
	To export the results to a spreadsheet, click Export Results to Excel.

Determine Software Version

NCS1014

Log in to NCS 1014 and enter the show version command

RP/0/RP0/CPU0:ios#show version Tue Dec 5 14:25:38.110 IST Cisco IOS XR Software, Version 7.11.1 LNT Copyright (c) 2013-2023 by Cisco Systems, Inc.

Build Information:

Built By : sajshah

Built On : Mon Dec 04 22:04:02 UTC 2023

Build Host : iox-ucs-075

Workspace : /auto/ioxdepot6/GISO/giso build lindt/giso custom create/sujeetk 2023-12-05 06-01-04 UTC

Version : 7.11.1

Label : 7.11.1-v1

cisco NCS1010 (C3758R @ 2.40GHz) cisco NCS1014 (C3758R @ 2.40GHz) processor with 32GB of memory System uptime is 10 minutes NCS 1014 - Chassis

NCS 1010

Log in to NCS 1010 and enter the show version command

RP/0/RP0/CPU0:ios#show version Sat Dec 9 05:02:09.913 UTC Cisco IOS XR Software, Version 7.11.1 LNT Copyright (c) 2013-2023 by Cisco Systems, Inc.

Build Information:

Built By : deenayak

Built On : Sun Dec 03 03:52:54 UTC 2023

L

```
Build Host : iox-lnx-159

Workspace : /auto/srcarchive14/prod/7.11.1/ncs1010/ws/

Version : 7.11.1

Label : 7.11.1

cisco NCS1010 (C3758 @ 2.20GHz)

cisco NCS1010-SA (C3758 @ 2.20GHz) processor with 32GB of memory

ios uptime is 12 minutes

NCS 1010 - Chassis
```

Determine Firmware Version

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; The Running and Programed version must be the same.

NCS 1014

Log in to node and enter the show hw-module fpd command:

```
RP/0/RP0/CPU0:ios#show hw-module fpd
Wed Nov 15 19:29:37.061 UTC
```

Auto-upgrade:Enabled Attribute codes: B golden, P protect, S secure, A Anti Theft aware

	, - <u>-</u> , -	- <u>-</u>	,,				Versions	
Location	Card type	HWver	FPD device	ATR	Status		======= Programd	
	NCS1K14-CNTLR-K9		 ADM-DB		CURRENT	2.10	2.10	NOT REO
	NCS1K14-CNTLR-K9		ADM-MB		CURRENT	2.30	2.30	NOT REO
	NCS1K14-CNTLR-K9	0.2	BIOS S		CURRENT			0/RP0
	NCS1K14-CNTLR-K9	0.2	BIOS-Golden	BS			4.70	0/RP0
0/RP0/CPU0	NCS1K14-CNTLR-K9	0.2	CpuFpqa	S	CURRENT	1.09	1.09	0/RP0
0/RP0/CPU0	NCS1K14-CNTLR-K9	0.2	CpuFpgaGolden	BS	CURRENT		1.09	0/RP0
0/RP0/CPU0	NCS1K14-CNTLR-K9	0.2	SsdMicron5300	S	CURRENT	0.01	0.01	0/RP0
0/RP0/CPU0	NCS1K14-CNTLR-K9	0.2	TamFw	S	CURRENT	9.04	9.04	0/RP0
0/RP0/CPU0	NCS1K14-CNTLR-K9	0.2	TamFwGolden	BS	CURRENT		9.04	0/RP0
0/PM0	NCS1K4-AC-PSU	0.1	PO-PriMCU		CURRENT	2.04	2.04	NOT REQ
0/PM0	NCS1K4-AC-PSU	0.1	PO-SecMCU		CURRENT	2.06	2.06	NOT REQ
0/PM1	NCS1K4-AC-PSU	0.1	PO-PriMCU		CURRENT	2.04	2.04	NOT REQ
0/PM1	NCS1K4-AC-PSU	0.1	PO-SecMCU		CURRENT	2.06	2.06	NOT REQ
0/0/NXR0	NCS1K4-1.2T-K9	0.1	CpuModFw	S	CURRENT	234.10	234.10	NOT REQ
0/0/NXR0	NCS1K4-1.2T-K9	0.1	OptModFw	S	CURRENT	1.38	1.38	NOT REQ
0/1/NXR0	NCS1K14-2.4T-K9	0.1	CpuModFw	S	CURRENT	234.10	234.10	NOT REQ
0/2/NXR0	NCS1K14-CCMD-16-0	0.1	CpuModFw	S	CURRENT	234.10	234.10	NOT REQ
0/2/NXR0	NCS1K14-CCMD-16-0	0.1	OptModFw	S	CURRENT	1.38	1.38	NOT REQ
0/3/NXR0	NCS1K4-1.2T-K9	0.1	CpuModFw	S	CURRENT	234.10	234.10	NOT REQ
0/3/NXR0	NCS1K4-1.2T-K9	0.1	OptModFw	S	CURRENT	1.38	1.38	NOT REQ
0/Rack	NCS1014	0.1	ADM-CHASSIS		CURRENT	0.21	0.21	NOT REQ
0/Rack	NCS1014	0.1	IoFpga	S	CURRENT	1.10	1.10	NOT REQ
0/Rack	NCS1014	0.1	IoFpgaGolden		CURRENT		1.05	NOT REQ
0/Rack	NCS1014	0.1	SsdIntelSC2KB	S	CURRENT	1.20	1.20	0/Rack

NCS 1010

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

RP/0/RP0/CPU0:ios#show hw-module fpd Mon Oct 9 11:24:19.674 IST

Auto-upgrade:Enabled

Attribute codes: B golden, P protect, S secure, A Anti Theft aware

Attribute (codes: B golden, P pro	tect,	S secure, A Anti	Ther	t aware	FPD	Versions		
Reload Loc	Card type					Running	Programd		
	NCS1010-CNTLR-K9								
	NCS1010-CNTLR-K9	1.0	BIOS	S	CURRENT	4.60	4.60		
0/RP0/CPU0 0/RP0	NCS1010-CNTLR-K9	1.0	BIOS-Golden	BS	CURRENT		4.10		
0/RP0/CPU0 0/RP0	NCS1010-CNTLR-K9	1.0	CpuFpga	S	CURRENT	1.11	1.11		
0/RP0/CPU0 0/RP0	NCS1010-CNTLR-K9	1.0	CpuFpgaGolden	BS	CURRENT		1.01		
0/RP0/CPU0 0/RP0	NCS1010-CNTLR-K9	1.0	SsdIntelS4510	S	CURRENT	11.32	11.32		
0/RP0	NCS1010-CNTLR-K9		TamFw				6.13		
0/RP0	NCS1010-CNTLR-K9								
NOT REQ	NCS1010-AC-PSU		AP-PriMCU						
NOT REQ	NCS1010-AC-PSU		AP-SecMCU			2.01			
NOT REQ	NCS1010-AC-PSU								
NOT REQ	NCS1010-AC-PSU				CURRENT				
NOT REQ	NCS1K-OLT-C								
NOT REQ			EITU-ADMConfig						
NOT REQ	NCS1010-SA		IoFpga						
NOT REQ	NCS1010-SA		IoFpgaGolden						
0/Rack	NCS1010-SA								
NOT REQ	NCS1K-MD-32E-C								
NOT REQ	NCS1K-MD-320-C	10.2	MD-32-ACC	S	CURRENT	2.18	2.18		
RP/0/RP0/CPU0:R1#									

Supported MIBs

The MIB Locator tool on Cisco Feature Navigator (CFN) provides access to NCS 1010 and NCS 1014 MIBs.

 $^{\ensuremath{\mathbb{C}}}$ 2023 Cisco Systems, Inc. All rights reserved.