

Release Notes for Cisco NCS 2000 Series, Release 12.2

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Software and Hardware Requirements

Before the user begins to install the software, check whether the system meets the following minimum software and hardware requirements:

- Hardware—Intel Core i5, i7, or faster processor. A minimum of 4 GB RAM, 100 GB hard disk with 250 MB of available hard drive space
- Operating System—Windows 10; macOS Mojave (10.14) and later
- Java Runtime Environment—JRE 1.8 and later
- Java version—8.0
- Browsers—Mozilla Firefox 71 and later; Google Chrome 78.0 and later

What's New in NCS 2000 Series, Release 12.2

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
Cisco NCS 2000 Series SVO	

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1.2T-MXP Card	This card triples the per slot throughput of the NCS 2000 system from 200 Gbps to 600 Gbps. The DCO trunk ports of the card can support up to 400-Gbps data-rate with multiple modulation formats, encoding types, and FEC options. This card can be installed in the NCS 2006 and NCS 2015 chassis.
40E-MXP-C, 40EX-MXP-C, and 40ME-MXP-C Cards	The 40E-MXP-C, 40EX-MXP-C, and 40ME-MXP-C cards are supported on SVO. The cards have CP-DQPSK extended performance.
80-WXC-C Card	The double-slot 80-channel Wavelength Cross-Connect C-band (80-WXC-C) card manages up to 80 ITU-T 50-GHz-spaced channels that are identified in the channel plan and sends them to dedicated output ports. Each channel can be selected from any input or output port. The card is an active ROADM module, and provides bidirectional capability. The 80-WXC-C card can be installed in NCS 2006 and NCS 2015 chassis.
Admin Plane Enhancements	<p>The following admin plane enhancements are done to improve the user experience:</p> <ul style="list-style-type: none"> • Flexible memory reservation replaces memory profiles. This enhancement allows the user to assign desired memory for an SVO instance. • IP Assignment Policy page replaces IP Filtering page. This change enables the user to modify IP addresses in the allowed list and denied list. In case of conflicting entries, the allowed IP address is preferred. • SVO Runtime Status page simplifies troubleshooting and allows the user to extract detailed information about the runtime environment of both the local and remote SVO instances. • Admin Plane Restart button replaces Reset to Factory Default button in the Utilities page. This enhancement enables the user to restart the admin plane when required. • Certificates page is introduced to check the details of SVO admin plane. The Renew Certificate button can be used to extend the lifetime of self-signed admin plane certificates by five years.
NCS Callback Log	This feature allows you to retrieve NCS callback diagnostic logs. This log collects information about the implementation status and return values of entire NSO data tree.
NCS2K-MF-CL-SC	<p>A new passive module, the C and L-band combiner and splitter, is introduced.</p> <p>The L-band addition for non-Raman assisted optical links requires a C and L optical combiner for expansion. The NCS2K-MF-CL-SC module allows Cisco to introduce any future L-band transmission system onto the existing NCS 2000 deployments.</p> <p>For more information, see Cisco NCS 2000 Series SVO Configuration Guide, Release 12.2 and Installing the Cisco NCS 2000 Series Passive Optical Modules.</p>

Feature	Description
Node Functional View (NFV) Enhancements	<p>The following NFV enhancements are introduced to improve the user experience:</p> <ul style="list-style-type: none"> • When you open a node or a side in the map view, the cards belonging to them are highlighted in the physical view. • Displays the last timestamp of NFV pane refresh using Last graph update icon. • In the Display Neighbors tab, clicking the IP address of the neighbor node opens the SVO Web User Interface of the neighbor node in a new browser tab. • In the Card List tab, the shelf number and slot number are displayed with the card name. The port number of the trunk port is also displayed for TXP cards. • You can set the width of the left shoulder.
OC192 and STM64 payload support	<p>OC192 and STM64 payloads are now supported on 40E-MXP, 400G-XP, and OTU2-XP cards and OC192 payload is supported for 10x10G-LC card.</p> <p>This feature allows you to:</p> <ul style="list-style-type: none"> • Provision SONET/SDH interfaces. • Provision SONET/SDH trace monitoring parameters for OC192 and STM64 payloads. • Provision SONET/SDH thresholds.
OPT-PRE and OPT-BST Cards	<p>The OPT-PRE card amplifies the incoming composite DWDM signal to allow sufficient optical power level to optical receivers on dropped wavelengths. It overcomes the insertion losses of the reconfigurable or fixed optical filters in the node.</p> <p>The OPT-BST card amplifies the outgoing composite DWDM signal to overcome the attenuation of the fiber network, providing a total output power of 17 dBm. It integrates an optical service channel splitter and combiner to allow the OSC to be sent to and received from the OSCM card.</p> <p>Both the cards can be installed in NCS 2006 and NCS 2015 chassis.</p>
OSC-CSM Card	<p>The OSC-Combiner or Splitter Module (OSC-CSM) card provides access to the OSC received signal, while expressing the remaining wavelengths and its transmitted signal is optically coupled into the fiber together with the transmitted wavelengths, in an unamplified node. The OSC-CSM card is used in nodes without a booster amplifier for OSC-CSM operation. The optical interface of the card provides extended optical reach to meet the node-to-node distances that are found in typical metro and regional networks. The OSC-CSM card can be installed in NCS 2006 and NCS 2015 chassis.</p>
OTDR Enhancements	<p>The following OTDR enhancements are introduced to improve the user experience:</p> <ul style="list-style-type: none"> • Choose either Hybrid or Fast mode for OTDR scan • Download OTDR scan configurations in .xls format • Print and download OTDR graph in JPEG or PNG formats • View the Event table below the graph with Event ID, Location (km), Magnitude (dB),and Type parameters

Feature	Description
OTU2-XP Card	The OTU2-XP card simplifies the integration and transport of 10 Gigabit Ethernet (10GE), OC192, and STM64 services into metro and regional service provider networks. This card can be installed in Cisco NCS 2006 and NCS 2015 chassis.
SOCKS Proxy	Socket Secure (SOCKS) is a standard proxy protocol for IP-based applications developed by IETF. SOCKS Proxy feature allows the SVO node to access remote NCS 2000 nodes using SOCKS Proxy server.
View Users	This feature allows an admin or superuser to view the details of users who have successfully logged into SVO.
Installing the Interleaver and Deinterleaver Module and Coupler and Splitter Module	
NCS1K-MD-64-C Omnidirectional Configuration	NCS1K-MD-64-C module is supported with omnidirectional connections. This configuration supports both connections towards Router/DCI that is equipped with QSFP-DD-ZR/QSFP-DD-ZR+ and to TXP (for example 1.2T-MXP, 400G-XP).

Caveats

Open Caveats

The following table lists the open caveats:

Caveat ID Number	Description
CSCvx76723	WEBUI does not automatically update Internal Patch Cords table after create/delete operation.
CSCvx96115	SONET/SDH thresholds table data not getting updated.
CSCvx96128	SONET/SDH Thresholds: Apply button is disabled for EB PM type for both Near End and Far End.
CSCvx96142	SONET/SDH thresholds: Unable to change thresholds for interfaces.
CSCvx97181	RmonDumpCounters not cleared on 3x400GE config.
CSCvx97217	SONET/SDH Thresholds: PM types mismatch from CTC to WEBUI and NETCONF.
CSCvx97298	While adding IPV6 backupserver address in NTP, error is displayed.
CSCvx97617	SVO Timeouts and WEB Certificate parameters setting not propagated to standby.

Caveat ID Number	Description
CSCvx97633	Traffic glitch observed on FIW-FR4 with VoFECM events on JDSU when making client OOS-IS.
CSCvx98969	IPC towards T6 without Circuits shows CV Result as disconnected.
CSCvx99850	UCSServer HA with IPv6 includes only active UCSServer logs.
CSCvx45442	OPT-EDFA-17 AND EDFA-24 cards - Possible traffic hit at software reset.

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.

Other Important Information and References

Supported Upgrade Paths

The following software releases can be upgraded:

- R10.9.0.2 SSON to R12.2 SSON and R10.9.0.2 NCS-L to R12.2 NCS-L
- R11.1 SSON to R12.2 SSON and R11.1 NCS-L to R12.2 NCS-L
- R11.1.1.2 SSON to R12.2 SSON and R11.1.1.2 NCS-L to R12.2 NCS-L
- R12.1 SSON to R12.2 SSON

