

Overview of the Router

The Cisco NCS 540 system is a high fault-resilient platform, which provides next generation data-center switching environment with high bandwidth and low latency.

Cisco NCS 540 system provides:

- High performance (300 Gbps full-duplex switching)
- Flexible network interface (10GbE, 25GbE, 40GbE, 50GbE, and 100GbE interfaces as well as ILKN interfaces)
- Traffic manager and in-band management
- Flexible and microcode-programmable packet processor
- Label Switched Router (LSR) and possible Light Label switched Edge Router (LER) features and functionality with limited hardware scale and software functionality.

Note Cisco IOS XR Software Release 7.0.1 specific updates are not applicable for the following variants of Cisco NCS 540 Series Routers:

- N540-28Z4C-SYS-A
- N540-28Z4C-SYS-D
- N540X-16Z4G8Q2C-A
- N540X-16Z4G8Q2C-D
- N540-12Z20G-SYS-A
- N540-12Z20G-SYS-D
- N540X-12Z16G-SYS-A
- N540X-12Z16G-SYS-D

These variants of the NCS 540 Series Routers run on the Cisco IOS XR7 operating system. For information about setting up the routers, see Setup Cisco NCS 540 Series Routers with XR7 OS. For information about installing the XR7 OS on NCS 540 series routers, see Install Cisco IOS XR7 on NCS 540 Series Routers.

Effective Cisco IOS XR Release 7.3.1, the following variants are introduced in the Cisco NCS 540 family. These variants fall under the small density routers:

- N540X-6Z18G-SYS-A
- N540X-6Z18G-SYS-D
- N540X-8Z16G-SYS-A
- N540X-8Z16G-SYS-D

These variants of the NCS 540 Series Routers also run on the Cisco IOS XR7 operating system.

For more information on these routers, see the Cisco Network Convergence System 540 Small-Density Routers Hardware Installation Guide and the Cisco Network Convergence System 540 Small-Density Router Data Sheet.

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Command Modes

The router runs on virtualized Cisco IOS XR software. Therefore, the CLI commands must be executed on virtual machines, namely the XR LXC and the System Admin LXC.

The command modes are applicable to the Cisco NCS540 Series Routers. This table lists the command modes for the LXCs.

Command Mode	Description
XR EXEC mode (XR LXC execution mode)	Run commands on the XR LXC to display the operational state of the router. Example: `RP/0/RP0/CPU0:router#`

XR Config mode
(XR LXC configuration mode)
	Perform security, routing, and other XR feature configurations on the XR LXC.
	Example:
	`RP/0/RP0/CPU0:router#configure`
	`RP/0/RP0/CPU0:router(config)#`

System Admin EXEC mode
(System Admin LXC execution mode)
Note
Only the following NCS 540 variants support this mode:
• N540-ACC-SYS
• N540X-ACC-SYS
• N540-24Z8Q2C-SYS
	Run commands on the System Admin LXC to display and monitor the operational state of the router hardware. The chassis or individual hardware modules can be reloaded from this mode.
	Example:
	`RP/0/RP0/CPU0:router#admin`
	`sysadmin-vm:0_RP0#`

Command Mode	Description

System Admin Config mode
(System Admin LXC configuration mode)
Note
Only the following NCS 540 variants support this mode:
• N540-ACC-SYS
• N540X-ACC-SYS
• N540-24Z8Q2C-SYS
	Run configuration commands on the System Admin LXC to manage and operate the hardware modules of the entire chassis.
	Example:
	`RP/0/RP0/CPU0:router#admin`
	`sysadmin-vm:0_RP0#config`
	`sysadmin-vm:0_RP0(config)#`