Data sheet

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The bridge to possible

Cisco Network Convergence System 540 Small Density Routers

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Cisco NCS 540 Small Density Routers are temperature-hardened, conformal-coated platforms with advanced timing (Class C), security, and QoS features that revolutionize sub-100G routing by bringing the power of the IOS XR operating system to 3G/4G/5G cell sites (CSRs) and ease "IP" fication of Radio Access Network (RAN) and small-cell backhaul.

Product overview

The next phase of the network traffic explosion will be driven by use cases that make massive demands on communication service providers. Not only do these new-age applications stipulate greater data bandwidth, but they also need to be complemented by ultra-reliable, low-latency communications to deliver use cases like AR/VR media, UltraHD and new multimedia consumer experiences, massive Internet of Things (IoT), tactile internet, smart cities, AI surveillance, smart health, and Machine-to-Machine (M2M) applications such as smart meters.

Cisco Network Convergence System 540 (NCS 540) Small Density Routers, part of the larger NCS 540 router family, are designed for cost-effective delivery of next-generation services and applications for mobile and wireline. These routers are sub-100G-bandwidth, cost-effective, native-25G, carrier-class, I-Temp, conformal-coated, ETSI-compliant, ultra-low-power, devices capable of Class-C timing, best-in-class security, service exposure using NC/YANG, streaming telemetry, and flexible rollouts using SDN. Built for deployment in any-gen RAN backhaul, sub-6 5G cell sites, Fixed-Wireless Access (FWA), small-cell backhaul, FTTx, utilities, mission-critical enterprise applications, and low-speed Ethernet rings, the three variants of NCS 540 Small Density Routers support a programmable SR (segment routing) fabric and EVPN (Ethernet Virtual Private Network) as overlay for a unified end-to-end architecture with cross-domain orchestration via the industry-leading IOS XR software bundled with best-in-class services.

Key product highlights

- Cell site routers based on IOS XR extending Cisco's 5G Converged SDN Transport with the smallest footprint, ever
- The only router in the industry with native 25G interfaces in a sub-100G bandwidth form factor allowing cost-effective and seamless backhauling of 5G NR
- G.8273.2 Class C Timing complaint
- Low power consumption: minimum <40W, typical <70W, maximum 100W
- 1 RU small form factor routers. Passively cooled (fanless) variant is of 2.5 RU form factor
- 2.5 RU passively cooled (fanless) router is suitable for indoor or outdoor cabinets
- 1RU routers with fans are suitable for indoor or outdoor (Sealed IP65/IP66 cabinet with heat exchanger conforming to GR487 Specs with sufficient cooling) cabinets: I-Temp, conformal-coated form factors conforming to GR-3108 class 2 and ETSI standards

- Segment Routing with MPLS (SR-MPLS) and IPv6 data plane (SRv6)
- Versatile Ethernet interface options: 10/100/1000M, 1/10/25G
- Security Trust Anchor infrastructure, secure boot, image signing, run-time defense
- True, secure zero-touch provisioning with the Cisco Crosswork[™] automation suite
- Fully compliant to MEF3.0 architecture for wireline networks*
- Flexible consumption model

*Indicates certification post FCS









Figure 1. Cisco NCS 540 Small Density Routers

Model comparison

 Table 1.
 NCS 540 Small Density Routers Comparison

Chassis PID	N540X-6Z18G- SYS-A N540X-6Z18G- SYS-D	N540X-8Z16G- SYS-A N540X-8Z16G- SYS-D	N540X- 4Z14G2Q-A N540X- 4Z14G2Q-D	N540-6Z14S-SYS-D	N540-6Z18G-SYS-A N540-6Z18G-SYS-D
CPU	4-core 2GHz CPU	4-core 2GHz CPU	4-core 2GHz CPU	4-core 2GHz CPU	4-core 2GHz CPU
Memory	8 GB DRAM	8 GB DRAM	8 GB DRAM	8 GB DRAM	8 GB DRAM
Storage	16 GB eMMC	16 GB eMMC	16 GB eMMC	16 GB eMMC	16 GB eMMC

Chassis PID	N540X-6Z18G- SYS-A	N540X-8Z16G- SYS-A	N540X- 4Z14G2Q-A	N540-6Z14S-SYS-D	N540-6Z18G-SYS-A N540-6Z18G-SYS-D
	N540X-6Z18G- SYS-D	N540X-8Z16G- SYS-D	N540X- 4Z14G2Q-D		N340 02100 313 D
Interfaces	6x 10/1GE	8x 10/1GE	2x 25/10/1GE	6x 10/1GE	6x 10/1GE
	18x 1GE	4x 1GE SFP	4x 10/1GE	4x 1GE SFP	18x 1GE
		4x 1GE RJ45	10x 1GE SFP	4x 1GE RJ45	
		8x 1GE SFP or 16x 1GE cSFP	4x 1GE Combo SFP/RJ45	6x 1GE SFP or 12x 1GE cSFP	
Performance	Up to 125 Mpps	Up to 125 Mpps	Up to 125 Mpps	Up to 125 Mpps	Up to 125 Mpps
Power Supplies	1 + 1 Fixed redundant DC 1 + 1 Fixed redundant AC	1 + 1 Fixed redundant DC 1 + 1 Fixed redundant AC	1 + 1 Fixed redundant DC 1 + 1 Fixed redundant AC	1 + 1 Fixed redundant DC	1 Fixed DC with dual feed 1 Fixed AC
Fans	Fixed redundant fans: 3+1	Fixed redundant fans: 3+1	Fixed redundant fans: 3+1	Fanless	Fixed redundant fans: 2+1
Airflow	Side to side: right to left	Side to side: right to left	Side to side: right to left	Passively cooled	Front to side**
Operating	I-Temp:	I-Temp:	I-Temp:	I-Temp:	C-Temp:
Temperature Range	-40°C to +70°C up to 300 m	-40°C to +70°C up to 300 m	-40°C to +70°C up to 300 m	-20°C to +65°C at 300 m	0°C to +55°C at 300 m
	-40°C to +65°C up to 1800 m	-40°C to +65°C up to 1800 m	-40°C to +65°C up to 1800 m	-20°C to +60°C up to 1800 m	0° C to +50° C at 1800 m
	-40° C to +55° C up to 4000 m	-40°C to +60°C with CSFP	-40°C to +55°C up to 4000 m	-20°C to +50°C up to 4000 m	+40°C at 4000 m
		-40°C to +55°C up to 4000 m			
Nonoperating (Storage) Temperature	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-20°C to +70°C	-5° C to +55° C
Operating Humidity Range	5-95% RH, noncondensing	5-95% RH, noncondensing	5-95% RH, noncondensing	5-95% RH, noncondensing	5-95% RH, noncondensing
Storage (Relative) Humidity	5-95% at 40° C per NEBS GR-63- Core	5-95% at 40° C per NEBS GR-63- Core	5-95% at 40° C per NEBS GR- 63-Core	5-95% at 40°C per NEBS GR-63-Core	5-95% at 40°C per NEBS GR-63-Core
Power	Universal AC (90-20) Wide range DC (-20)			Wide range DC (-40V to -72V)	Universal AC (90- 265V; 50-60 Hz) Wide range DC (-20V to -72V)
Surge Rating*	4KV common mode 2KV differential	4KV common mode 2KV differential	4KV common mode 2KV differential	4KV common mode 2KV differential mode	1KV common mode 1KV differential mode
	mode	mode	mode		

Chassis PID	N540X-6Z18G- SYS-A N540X-6Z18G- SYS-D	N540X-8Z16G- SYS-A N540X-8Z16G- SYS-D	N540X- 4Z14G2Q-A N540X- 4Z14G2Q-D	N540-6Z14S-SYS-D	N540-6Z18G-SYS-A N540-6Z18G-SYS-D
Timing	SyncE, PTP, Interfaces: 1pps, 10MHz, ToD Class C	SyncE, PTP, Interfaces: 1pps, 10MHz, ToD Class C Class B on RJ45 1GE	SyncE, PTP, Interfaces: 1pps, 10MHz, ToD Class C Class B on RJ45 1GE Class B on Ports 14, 15	SyncE, PTP, Interfaces: 1pps, 10MHz, ToD Class C Class B on RJ45 1GE	N/A
Physical Specification	Height: 1 RU Width: 445 mm Depth: 232 mm Weight: 5.85 kg - AC unit 5.5 kg - DC unit	Height: 1 RU Width: 445 mm Depth: 232 mm Weight: 5.85 kg - AC unit 5.5 kg - DC unit	Height: 1 RU Width: 445 mm Depth: 232 mm Weight: 5.85 kg - AC unit 5.5 kg - DC unit	Height: 2.5 RU Width: 445 mm Depth: 384 mm Weight: 10 kg	Height: 1 RU Width: 445 mm Depth: 232 mm Weight: 3.3 kg - AC unit 3.5 kg - DC unit
Conformal Coated	Yes	Yes	Yes	No	No
Mounting Options	19", 23", ETSI	19", 23", ETSI	19", 23", ETSI	19", 23"	19", 23", ETSI
Management Interfaces	USB console port, USB memory port, RJ45 console	USB console port, USB memory port, RJ45 console	USB console port, USB memory port, RJ45 console	USB console port, USB memory port, RJ45 console	USB console port, USB memory port, RJ45 console
Sensors	Humidity, Altitude	Humidity, Altitude	Humidity, Altitude	No	No
NEBS GR-3108	Designed to meet Class III when installed in sealed cabinets	Designed to meet Class III when installed in sealed cabinets	Class III when	Designed to meet Class II	Designed to meet Class I

^{*}Requires external surge protection devices for installations where higher surge levels are expected. Failure to do so might lead to permanent damage.

 $^{^{\}mbox{\tiny **}}\mbox{Reach}$ out to your sales if front to back airflow support is needed

Key software feature support

 Table 2.
 Key software feature support

	sature support
Specification	Description
Layer 2	VPWS, VPLS, IRB/BVI v4/v6 Layer 2 forwarding and bridging Bridge Domains (BD)
	Ethernet Flow Point (EFP)
	IEEE 802.1Q VLANs and Q-in-Q
	Ethernet Link Aggregation Group (LAG)
	Link Aggregation Control Protocol (LACP) 802.3ad
	G.8032
Layer 3	IPv4 and IPv6 unicast routing
	Layer 3 interfaces: physical interfaces and subinterfaces
	Virtual Routing and Forwarding (VRF)
	Open Shortest Path First (OSPFv2, OSPFv3)
	Border Gateway Protocol (BGP) v4/v6, LU, PIC, Path Selection, Attributes, TE, Authentication, Security, LS
	Multiprotocol Border Gateway Protocol (MP-BGP)
	Intermediate System to Intermediate System (ISIS, ISISv6)
	Equal-Cost Multipath (ECMP)
	Bidirectional Forwarding Detection (BFD) v4/v6, Timers, Routing Protocols, Bundle Interfaces, BFD unnumbered
	Virtual Router Redundancy Protocol (VRRP)
	Integrated Routing Bridging (IRB) with Bridge Virtual Interface (BVI)
	Generic Routing Encapsulation (GRE)
MPLS	Label switching (LER, LSR)
	Label Distribution Protocol (LDP)
	BGP Labeled Unicast (BGP-LU)
	L3 VPN, MPLS Traffic Engineering with RSVP-TE
	Point-to-point L2VPN - Static, T-LDP, EVPN-VPWS
	Multipoint L2VPN - VPLS, EVPN
	L2/L3 EVPN with Anycast IRB
	6PE, 6VPE
	IP Loop-Free Alternate (LFA) Fast Reroute (FRR)
	RSVP-TE Fast Reroute (FRR)

Specification	Description
Segment Routing (SR)	Segment Routing with MPLS data plane (SR-MPLS) Segment Routing with IPv6 data plane (SRv6) ISIS, OSPF, BGP extensions to segment routing BGP Egress Peering Engineering (BGP-EPE) Segment Routing Traffic Engineering (SRTE) Segment Routing Path Computation Element (SR-PCE) Topology Independent Loop-Free Alternate (TI-LFA) Segment Routing On-Demand Next-hop (SR-ODN)
Multicast	IPv4 and IPv6 multicast routing PIM-SM, PIM-SSM IGMPv3, MLDv2 mLDP mVPN P2MP-TE
Quality of Service (QoS)	Class-based 3-level Hierarchical QoS Virtual Output Queueing (VOQ) Policing, Shaping Multilevel priority queuing Match, Stats, Classification, Queue management, Remarking Classification based on L2/L3/L4 fields Weighted Random Early Detection (WRED) Deep packet buffer
Timing	SyncE with ESMC External GNSS receiver IEEE 1588-2008 PTP T-GM, T-BC, T-TSC G.8265.1, G.8275.1, G.8275.2 G.8273.2 Class C (Class B on RJ45 1GE)

Specification	Description
Security	Control-plane and management plane protection Local Packet Transport Services (LPTS) Authentication, Authorization, and Accounting (AAA) Terminal Access Controller Access-Control System Plus (TACACS+) Secure Shell (SSH) Layer 3 ingress and egress ACLs for IPv4 and IPv6 Layer 2 ingress ACLs Unicast Reverse Path Forwarding (Unicast RPF)
ОАМ	CDP, LLDP, ICMP, DHCP Relay IP SLA MPLS OAM Ethernet OAM: CFM, Y.1731 DM/SLM TWAMP NetFlow SPAN/ERSPAN
Manageability	CLI, ICMP, EEM, FTP, TFTP, Telnet SNMP MIB NETCONF/gRPC (XML, JSON, GPB) YANG models (native, open: OpenConfig, IETF) Model/Event-Driven Telemetry RPM-based SW infrastructure Zero-Touch Provisioning (ZTP) with iPXE

Supported transceiver modules

Please refer to the <u>Transceiver Module Group (TMG) Compatibility Matrix</u> for the NCS 540 Series supported transceivers.

Regulatory standards compliance

 Table 3.
 Regulatory standards compliance: Safety and EMC

Specification	Product:	Product:	Product:
	N540X-6Z18G-SYS-D, N540X- 6Z18G-SYS-A,	N540-6Z14S-SYS-D	N540-6Z18G-SYS-A N540-6Z18G-SYS-D
	N540X-8Z18G-SYS-D, N540X- 8Z18G-SYS-A,		N340-0218G-313-D
	N540X-4Z14G2Q-D, N540X- 4Z14G2Q-A		
Regulatory Compliance	Products comply with CE markings according to directives 2004/108/EC and 2006/95/EC	Products comply with CE markings according to directives 2004/108/EC and 2006/95/EC	Products comply with CE markings according to directives 2004/108/EC and 2006/95/EC
Network Equipment Building Standards (NEBS)	Designed to meet GR-63-CORE and GR-1089-CORE	Designed to meet GR-63-CORE and GR-1089-CORE	Designed to meet GR- 63-CORE and GR-1089- CORE
Safety	UL 60950-1 Second Edition CAN/CSA-C22.2 No. 60950-1 Second Edition EN 60950-1 Second Edition IEC 60950-1 Second Edition AS/NZS 60950-1 GB4943 CSA 62368-1 ANSI/UL 62368-1 IEC 62368-1:2014 EN 62368-1:2014+A11:2017	UL 60950-1 Second Edition CAN/CSA-C22.2 No. 60950-1 Second Edition EN 60950-1 Second Edition IEC 60950-1 Second Edition CSA 62368-1 ANSI/UL 62368-1 IEC 62368-1:2014 EN 62368-1:2014+A11:2017	UL 60950-1 Second Edition CAN/CSA-C22.2 No. 60950-1 Second Edition EN 60950-1 Second Edition IEC 60950-1 Second Edition IEC 60950-1 Second Edition CSA 62368-1: 2019 ANSI/UL 62368-1: 3rd Edition IEC 62368-1:2020 EN 62368-1:2020

Specification	Product:	Product:	Product:
	N540X-6Z18G-SYS-D, N540X-	N540-6Z14S-SYS-D	N540-6Z18G-SYS-A
	6Z18G-SYS-A,		N540-6Z18G-SYS-D
	N540X-8Z18G-SYS-D, N540X- 8Z18G-SYS-A,		
	N540X-4Z14G2Q-D, N540X- 4Z14G2Q-A		
EMC Standards	EN55032:2015	EN55032:2015	EN55032:2015
	EN61000-3-2:2014	EN61000-3-2:2014	EN61000-3-2:2014
	ICES-003:2016:lss:6	ICES-003:2016:lss:6	ICES-003:2016:lss:6
	EN55032:2012	EN55032:2012	EN55032:2012
	47 CFR Part 15:2016	47 CFR Part 15:2016	47 CFR Part 15:2016
	KN61000-3-3:2014	KS C 9610-3-3:2020	KS C 9610-3-3:2020
	CISPR32:2015:Ed:2	CISPR32:2015:Ed:2	CISPR32:2015:Ed:2
	CNS13438:2006	CNS13438:2006	CNS13438:2006
	KN32:2015	KS C 9832	KS C 9832
	EN300 386:2012:V1.6.1	EN300 386:2012:V1.6.1	EN300 386:2012:V1.6.1
	KN61000-3-2:2014	KS C 9610-3-2:2020	KS C 9610-3-2:2020
	VCCI-CISPR 32:2016	VCCI-CISPR 32:2016	VCCI-CISPR 32:2016
	EN61000-3-3:2013	EN61000-3-3:2013	EN61000-3-3:2013
	TEC/SD/DD/EMC-221/05/OCT-16	TEC/SD/DD/EMC-221/05/OCT-16	TEC/SD/DD/EMC- 221/05/OCT-16
	EN50121-4:2016		221,00,001
	EN50121-4:2016:A1:2019		
	IEC62236-4:2018:Ed:3.0		
EMC Immunity	IEC/EN61000-4-2	IEC/EN61000-4-2	IEC/EN61000-4-2
	IEC/EN61000-4-3	IEC/EN61000-4-3	IEC/EN61000-4-3
	IEC/EN61000-4-4	IEC/EN61000-4-4	IEC/EN61000-4-4
	IEC/EN61000-4-5	IEC/EN61000-4-5	IEC/EN61000-4-5
	IEC/EN61000-4-6	IEC/EN61000-4-6	IEC/EN61000-4-6
	IEC/EN61000-4-11	IEC/EN61000-4-11	IEC/EN61000-4-11
	CISPR24:2010+A1:2015	CISPR24:2010+A1:2015	CISPR24:2010+A1:2015
	CISPR35:2016:Ed:1	CISPR35:2016:Ed:1	CISPR35:2016:Ed:1
	EN IEC61000-6-1:2019	EN IEC61000-6-1:2019	EN IEC61000-6-1:2019
	EN300 386:2012:V1.6.1	EN300 386:2012:V1.6.1	EN300 386:2012:V1.6.1
	EN55024:2010	EN55024:2010	EN55024:2010
	EN55024:2010:A1	EN55024:2010:A1	EN55024:2010:A1
	EN55035:2017	EN55035:2017	EN55035:2017
	EN61000-6-1:2007	EN61000-6-1:2007	EN61000-6-1:2007
	EN61000-6-2:2019	EN61000-6-2:2019	EN61000-6-2:2019

Specification	Product: N540X-6Z18G-SYS-D, N540X-6Z18G-SYS-A, N540X-8Z18G-SYS-D, N540X-8Z18G-SYS-A, N540X-4Z14G2Q-D, N540X-4Z14G2Q-A	Product: N540-6Z14S-SYS-D	Product: N540-6Z18G-SYS-A N540-6Z18G-SYS-D
	IEC61000-6-1:2016:Ed:3 IEC61000-6-2:2016:Ed:3 KN35:2015 EN50121-4:2016 EN50121-4:2016:A1:2019 IEC62236-4:2018:Ed:3.0 IEC61000-4-5 (4kV/CM and 2kV/DM on DC input)	IEC61000-6-1:2016:Ed:3 IEC61000-6-2:2016:Ed:3 KS C 9835	IEC61000-6-1:2016:Ed:3 IEC61000-6-2:2016:Ed:3 KS C 9835
ETSI	ETS/EN 300 119 Part 4 ETS/EN 300 019 - Storage: Class 1.2, Transportation: Class 2.3, In-Use/Operational: Class 3.2 ETS/EN 300 753	ETS/EN 300 119 Part 4 ETS/EN 300 019 - Storage: Class 1.2, Transportation: Class 2.3, In-Use/Operational: Class 3.2 ETS/EN 300 753	ETS/EN 300 119 Part 4 ETS/EN 300 019 - Storage: Class 1.2, Transportation: Class 2.3, In-Use/Operational: Class 3.2 ETS/EN 300 753
RoHS	The product is RoHS-6 compliant with exceptions for leaded-Ball Grid-Array (BGA) balls and lead press-fit connectors.	The product is RoHS-6 compliant with exceptions for leaded-Ball Grid-Array (BGA) balls and lead press-fit connectors.	The product is RoHS-6 compliant with exceptions for leaded-Ball Grid-Array (BGA) balls and lead press-fit connectors.

Ordering information

 Table 4.
 Ordering information

Router PID	N540X-6Z18G- SYS-A N540X-6Z18G- SYS-D	N540X-8Z16G- SYS-A N540X-8Z16G- SYS-D	N540X-4Z14G2Q-A N540X-4Z14G2Q- D	N540-6Z14S-SYS- D	N540-6Z18G-SYS- A N540-6Z18G-SYS- D
Description	NCS540 18x1G SFP + 6x1/10G SFP+ Dual-AC iTEMP Conformal-Coated Chassis NCS540 18x1G SFP + 6x1/10G SFP+ Dual-DC iTEMP Conformal-Coated Chassis	N540 12/20(CSFP) x1G + 4x1GCu + 8x1/10G Dual-AC iTEMP Conformal- Coated Chassis N540 12/20(CSFP) x1G + 4x1GCu + 8x1/10G Dual-DC iTEMP Conformal- Coated Chassis	NCS540 14x1G + 4x1/10G + 2x10/25G Dual-AC iTEMP Conformal- Coated Chassis NCS540 14x1G + 4x1/10G + 2x10/25G Dual-DC iTEMP Conformal- Coated Chassis	N540 10/6(CSFP) x1G + 4x1GCu + 6x1/10G Dual-DC iTEMP	NCS540 18x1G SFP + 6x1/10G SFP+ AC cTEMP Chassis NCS540 18x1G SFP + 6x1/10G SFP+ DC cTEMP Chassis
Rackmount for AC Variant	N540-RCKMT-19- ACA N540-RCKMT-23- ACA N540-RKMT-ETSI- ACA	N540-RCKMT-19- ACA N540-RCKMT-23- ACA N540-RKMT-ETSI- ACA	N540-RCKMT-19- ACA N540-RCKMT-23- ACA N540-RKMT-ETSI- ACA	Not Applicable	N540-RCKMT-19- ACA N540-RCKMT-23- ACA N540-RKMT-ETSI- ACA
Rackmount for DC Variant	N540-RCKMT-19- ACD N540-RCKMT-23- ACD N540-RKMT-ETSI- ACD	N540-RCKMT-19- ACD N540-RCKMT-23- ACD N540-RKMT-ETSI- ACD	N540-RCKMT-19- ACD N540-RCKMT-23- ACD N540-RKMT-ETSI- ACD	N540-RCKMT-19- MRK N540-RCKMT-23- MRK	N540-RCKMT-19- ACD N540-RCKMT-23- ACD N540-RKMT-ETSI- ACD
Cable Bracket	N540-CBL-BRKT- AC	N540-CBL-BRKT- AC	N540-CBL-BRKT- AC		N540-CBL-BRKT- AC
F2B Plenum Accessories	Not Applicable	Not Applicable	Not Applicable	Not Applicable	N540-6Z18G-PL-E N540-6Z18G-PL- 23 N540-CBL-BRKT- FN
FCS Software	IOS XR 7.3.1	IOS XR 7.3.1	IOS XR 7.4.1	IOS XR 7.5.2	IOS XR 7.8.1

 Table 5.
 Ordering information for software licenses available on NCS 540 portfolio.
 Learn more.

Product ID (PID)	Description
ESS-AC-10G-RTU-1	Access Essentials SW Right-to-Use v1.0 per 10G
ADV-AC-10G-RTU-1	Access Advantage w/o Essentials SW RTU v1.0 10G
ADN-AC-10G-RTU-1	Access Advantage w/ Essentials SW RTU v1.0 10G
ESS-ADN-AC-10G-RT	Access Essentials to Advantage Upgrade RTU per 10G
ESS-AC-10G-SIA-3	Access Essentials SIA 10G 3-5 year term
ESS-AC-10G-SIA-5	Access Essentials SIA 10G 5-10 year term
ADV-AC-10G-SIA-3	Access Advantage w/o Essentials SIA 10G 3-5 year term
ADV-AC-10G-SIA-5	Access Advantage w/o Essentials SIA 10G 5-10 year term
ADN-AC-10G-SIA-3	Access Advantage w/ Essentials SIA 10G 3-5 year term
ADN-AC-10G-SIA-5	Access Advantage w/ Essentials SIA 10G 5-10 year term
ESS-ADN-AC-10G-S3	Access Essentials to Advantage Upgrade SIA 10G 3-5 yrs
ESS-ADN-AC-10G-S5	Access Essentials to Advantage Upgrade SIA 10G 5-10 yrs
N540-24Z8Q2C-FC-SW	NCS 540 Series additional Software Licenses (RTU, SIA)

 Table 6.
 Ordering information for power cables supported

Part number	Description
CAB-AC-SA	Power Cord - South Africa, 16/10A, 250V, 1830mm, -40C to +85C
CAB-AC-ARG	Power Cord - Argentina, 10A, 250V, 2500mm, -40C to +85C
CAB-AC-ISR	Power Cord - Israel, 16/10A, 250V, 2500mm, -40C to +85C
CAB-AC-TAI	Power Cord - Taiwan, 15/10A, 125V, 2500mm, -40C to +85C
CAB-AC-CHI	Power Cord - China, 10A, 250V, 2500mm, -40C to +85C
CAB-AC-KOR	Power Cord - Korea, 16/10A, 125V, 2500mm, -40C to +85C
CAB-AC-EUR	Power Cord - Europe, 16/10A, 250V, 2500mm, -40C to +85C
CAB-AC-ITL	Power Cord - Italy, 10A, 250V, 2500mm, -40C to +85C
CAB-AC-UK	Power Cord - UK, 13/10A, 250V, 2500mm, -40C to +85C
CAB-AC-AUS	Power Cord - Australia, 10A, 250V, 2500mm, -40C to +85C
CAB-AC-US	Power Cord - US, 15A, 125V, 2500mm, -40C to +85C

Part number	Description
CAB-AC-BRA	Power Cord - Brazil, 10A, 250V, 2500mm, -40C to +85C
CAB-AC-IND	Power Cord - India, 16/10A, 250V, 2500mm, -40C to +85C
CAB-AC-SUI	Power Cord - Swiss, 10A, 250V, 2500mm, -40C to +85C

Service and support

Cisco offers a wide range of services to help accelerate your success in deploying and optimizing the Cisco NCS 540. These innovative <u>Cisco Customer Experience (CX)</u> offerings are delivered through a unique combination of people, processes, tools, and partners, and they are focused on helping you increase operating efficiency and improve your network operation. Cisco CX helps you resolve mission-critical problems with direct access at any time to Cisco network experts and award-winning resources. Spanning the entire network lifecycle, Cisco CX offerings help increase investment protection, optimize network operations, support migration operations, and strengthen your IT expertise.

Warranty information

The Cisco NCS 540 Small Density Routers has a 1-year limited hardware warranty. The warranty includes hardware replacement with a 10-day turnaround from receipt of a Return Materials Authorization (RMA).

Product sustainability

Information about Cisco's environmental, social and governance (ESG) initiatives and performance is provided in Cisco's CSR and sustainability <u>reporting</u>.

 Table 7.
 Cisco Environmental Sustainability Information

Sustainability Topic		Reference
General	Information on product-material-content laws and regulations	<u>Materials</u>
	Information on electronic waste laws and regulations, including our products, batteries and packaging	WEEE Compliance
	Information on product takeback and reuse program	Cisco Takeback and Reuse Program
	Sustainability Inquiries	Contact: csr_inquiries@cisco.com
Material	Product packaging weight and materials	Contact: environment@cisco.com

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Document history

New or revised topic	Described in	Date
Updated with N540-6Z18G-SYS-A/D Information		November 14th, 2022
Updated with N540-6Z14S-SYS-D Information		May 9 th , 2022
Updated Section Ordering information		July 14 th , 2022
New data sheet for NCS 540 Small Density Routers		March 16 th , 2021

Americas Headquarters Cisco Systems, Inc. San Jose, CA Asia Pacific Headquarters Cisco Systems (USA) Pte. Ltd. Singapore

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