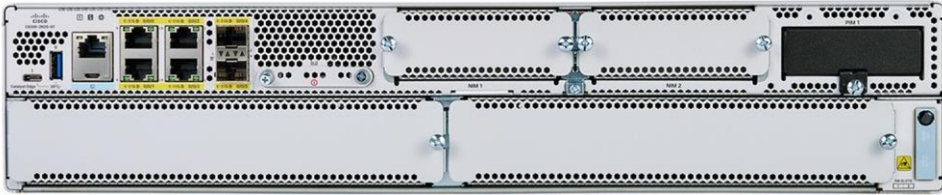


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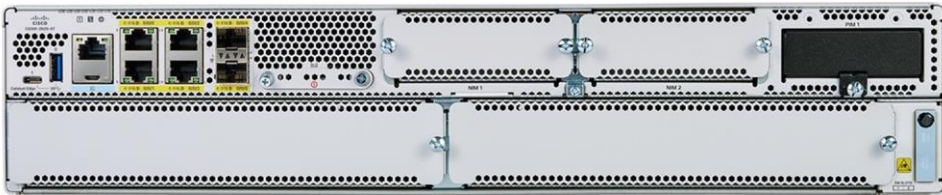


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Рисунок 3.

Платформа C8300-1N1S-4T2X с 1 слотом SM, 1 слотом NIM, 2 портами 10-Gigabit Ethernet и 4 портами 1-Gigabit Ethernet (C8300 1RU w/ 10G WAN)



Рисунок 4.

Платформа C8300-1N1S-6T с 1 слотом SM, 1 слотом NIM и 6 портами 1-Gigabit Ethernet (C8300 1RU w/ 1G WAN)

В таблицах 2 и 3 показаны, соответственно, спецификации и производительность платформ.

Таблица 2. Спецификации платформы Cisco Catalyst 8300

Модель	Описание	Плотность портов 10G	Плотность портов 1G	Слоты	Память (DRAM) по умолчанию	Система хранения M.2 SSD по умолчанию
C8300-2N2S-4T2X	C8300 2RU w/ 10G WAN (2 слота SM, 2 слота NIM, 2 порта 10-Gigabit Ethernet, 4 порта 1-Gigabit Ethernet)	2	4	2 SM 2 NIM 1 PIM	8 ГБ	16 ГБ
C8300-2N2S-6T	C8300 2RU w/ 1G WAN (2 слота SM, 2 слота NIM, 6 портов 1-Gigabit Ethernet)	-	6	2 SM 2 NIM 1 PIM	8 ГБ	16 ГБ
C8300-1N1S-4T2X	C8300 1RU w/ 10G WAN (1 слот SM, 1 слот NIM, 2 порта 10-Gigabit Ethernet, 4 порта 1-Gigabit Ethernet)	2	4	1 SM 1 NIM 1 PIM	8 ГБ	16 ГБ
C8300-1N1S-6T	C8300 1RU w/ 1G WAN (1 слот SM, 1 слот NIM, 6 портов 1-Gigabit Ethernet)	-	6	1 SM 1 NIM 1 PIM	8 ГБ	16 ГБ

Производительность платформы

Таблица 3а. Cisco controller mode (SD-WAN) Производительность в режиме контроллера (SD-WAN) N) performance specifications

Функция	C8300-2N2S-4T2X (2RU w/ 10G WAN)	C8300-1N1S-4T2X (1RU w/ 10G WAN)	C8300-2N2S-6T (2RU w/ 1G WAN)	C8300-1N1S-6T (1RU w/ 1G WAN)
Пропускная способность SD-WAN IPsec (1400 байт, чистый текст)	До 18 Гбит/с	До 15 Гбит/с	До 1,9 Гбит/с	До 1,9 Гбит/с
Пропускная способность SD-WAN IPsec (IMIX*, чистый текст**)	5 Гбит/с	4,3 Гбит/с	1,75 Гбит/с	1,75 Гбит/с
Оверлейные туннели SD-WAN	6000	6000	6000	6000

* IMIX – средний размер пакета 352 байта

**Измерение чистого текста, введенного генератором трафика

Таблица 3б. Производительность в автономном режиме (не SD-WAN)

Функция	C8300-2N2S-4T2X (2RU w/ 10G WAN)	C8300-1N1S-4T2X (1RU w/ 10G WAN)	C8300-2N2S-6T (2RU w/ 1G WAN)	C8300-1N1S-6T (1RU w/ 1G WAN)
Пропускная способность IPv4 Forwarding (1400 байт)	До 19,7 Гбит/с	До 19,7 Гбит/с	До 19,7 Гбит/с	До 19,7 Гбит/с
Пропускная способность IPsec (1400 байт, чистый текст**)	До 18,8 Гбит/с	До 15,8 Гбит/с	До 1,9 Гбит/с	До 1,9 Гбит/с
Количество туннелей IPsec SVTI	4000	4000	4000	4000

**Измерение чистого текста, введенного генератором трафика

Таблица 3с. Масштабируемость в автономном режиме (не SD-WAN)

Функция	C8300-2N2S-4T2X (2RU w/ 10G WAN)	C8300-1N1S-4T2X (1RU w/ 10G WAN)	C8300-2N2S-6T (2RU w/ 1G WAN)	C8300-1N1S-6T (1RU w/ 1G WAN)
Количество ACL на систему	4000	4000	4000	4000
Количество IPv4 ACE на систему	72 000	72 000	72 000	72 000
Количество маршрутов IPv4	1,6 млн с памятью 8 ГБ (по умолчанию), до 4 млн с памятью 32 ГБ	1,6 млн с памятью 8 ГБ (по умолчанию), до 4 млн с памятью 32 ГБ	1,6 млн с памятью 8 ГБ (по умолчанию), до 4 млн с памятью 32 ГБ	1,6 млн с памятью 8 ГБ (по умолчанию), до 4 млн с памятью 32 ГБ
Количество маршрутов IPv6	1,5 млн с памятью 8 ГБ (по умолчанию), до 4 млн с памятью 32 ГБ	1,5 млн с памятью 8 ГБ (по умолчанию), до 4 млн с памятью 32 ГБ	1,5 млн с памятью 8 ГБ (по умолчанию), до 4 млн с памятью 32 ГБ	1,5 млн с памятью 8 ГБ (по умолчанию), до 4 млн с памятью 32 ГБ
Количество очередей	16 000	16 000	16 000	16 000

Функция	C8300-2N2S-4T2X (2RU w/ 10G WAN)	C8300-1N1S-4T2X (1RU w/ 10G WAN)	C8300-2N2S-6T (2RU w/ 1G WAN)	C8300-1N1S-6T (1RU w/ 1G WAN)
Количество сессий NAT	1,2 млн с памятью 8 ГБ (по умолчанию), до 2 млн с памятью 32 ГБ	1,2 млн с памятью 8 ГБ (по умолчанию), до 2 млн с памятью 32 ГБ	1,2 млн с памятью 8 ГБ (по умолчанию), до 2 млн с памятью 32 ГБ	1,2 млн с памятью 8 ГБ (по умолчанию), до 2 млн с памятью 32 ГБ
Количество сессий сетевого экрана	512 000	512 000	512 000	512 000
Количество VRF	4000	4000	4000	4000

Общие преимущества платформы

Ускоренная доставка услуг с помощью Cisco SD-WAN

Cisco SD-WAN – это пакет интеллектуальных программных сервисов, позволяющий вам надежно и безопасно подключать пользователей, устройства и корпоративные отделения к различным транспортным каналам глобальных сетей. Платформы Cisco Catalyst 8000 Series Edge Platform могут в динамическом режиме маршрутизировать трафик по “лучшему” каналу, который определяется с учетом самых свежих данных о состоянии приложения и сети, для максимального повышения качества услуг. Вы сможете четко контролировать такие факторы, как производительность приложения, использование полосы пропускания, безопасность данных и доступность каналов WAN. Этот контроль особенно важен в ситуации, когда корпоративное отделение наращивает объемы критически важного трафика в своих помещениях и в облаке.

Оптимизация производительности устройств

Ваши сети SD-WAN будут поддерживать требования SLA и высокую производительность даже при возникновении сетевых проблем. Мультиоблачный доступ позволит ускорить работу приложений SaaS с помощью простой передачи шаблона с контроллера SD-WAN. Функции оптимизации TCP, упреждающей коррекции ошибок и дублирования пакетов помогут увеличить производительность приложений и повысить качество пользовательских услуг.

Многоуровневая безопасность

Вы можете превратить традиционные сложные глобальные сети в гибкие программно-определяемые сети SD-WAN со встроенной безопасностью. Платформы Cisco Catalyst 8300 подключают корпоративные офисы к Интернету и облаку с использованием лучших в отрасли решений для отражения хакерских атак. Функция безопасного прямого Интернет-доступа (DIA) поможет оптимизировать работу отделений и повысить производительность, особенно при использовании облачных приложений. В то же время DIA обеспечивает защиту корпоративного отделения от внешних угроз.

Унифицированные коммуникации

Платформы Cisco Catalyst 8300 поддерживают широкое разнообразие функций голосовой связи как через SD-WAN, так и с помощью традиционного программного стека IOS-XE. Cisco является единственным вендором SD-WAN, который нативно встраивает аналоговый и цифровой IP напрямую в устройство CPE, что значительно сокращает капитальные и текущие расходы. В режиме SD-WAN устройства Catalyst 8300 предотвращают внутренние и внешние отключения с помощью SRST, позволяя офисному маршрутизатору брать на себя роль UATC для поддержки непрерывной телефонной связи. Мы также поддерживаем множество традиционных голосовых функций IOS-XE, включая Cisco Unified Border Element (CUBE), Cisco Unified Communications Manager, Session Border Controller, SRST, ISDN и VoIP.

Cloud-native agility with a programmable software architecture

Cisco continues to offer a feature-rich traditional IOS-XE routing stack on the Cisco Catalyst 8300 Series Edge Platforms. IP Routing, IPSec, Quality of Service (QoS), firewall, Network Address Translation (NAT), Network-Based Application Recognition (NBAR), Flexible NetFlow (FNF), and many other features are part of Cisco IOS-XE, a fully programmable software architecture with API support and a wide variety of protocols and configurations. With an integrated software image and a single binary file, you can now choose between Cisco IOS XE SD-WAN and IOS XE. And easily move from one to the other when you choose to do so.

5G-ready

The Cisco Catalyst 8300 Series Edge Platforms are built for future 5G networks. With higher throughputs with CAT18 LTE and 5G, WAN networks are looking at wireless WAN as primary transports for different use cases. These platforms will support both integrated pluggable modules as well as external cellular gateway modules with LTE/5G capability for improved throughputs that address all of those use cases. Based on a specific branch's direct line of sight and cellular coverage, either integrated or external gateway can be chosen for that particular situation.

Interface flexibility

Switch ports

We are introducing a Unified Access Data Plane (UADP)-based 22-port and 50-port Layer 2 switch module for the Catalyst 8300 Series. The edge platform can be a branch-in-a-box solution with this integrated switch module with 1G, Cisco Multigigabit Technology (mGig), and 10G ports for downstream switches and devices. The 22-port Layer-2 module is a single-wide module that can be used on both the 1RU and 2RU platforms. The 50-port Layer-2 module is a double-wide module that can be used on the 2RU platforms.

Cisco UCS-E compute

The Cisco Catalyst 8300 Series Edge Platforms will support the Cisco UCS-E M3 modules for branch compute needs. We support both Cisco and third-party Virtual Network Functions (VNFs) on the Cisco Enterprise NFV Infrastructure Software (NFVIS) hypervisor running on the UCS-E compute blade server. Cisco UCS-E M3 modules have 6-, 8-, and 12-core options to choose from based on the number of VNFs that need to be run at the branch.

Voice modules

The Cisco Catalyst 8300 Series Edge Platforms will continue to support a variety of voice modules for the different voice needs at the branch. Voice module examples include Foreign Exchange Station (FXS), Foreign Exchange Office (FXO), Digital Signal Processor (DSP), etc.

Supported modules

Table 4. Modules supported on Cisco Catalyst 8300 Series Edge Platforms

Product number	Description
Ethernet WAN modules	
C-NIM-1X	Cisco NIM module 1-port 10G SFP/SFP+ with MACSec
LAN modules	
NIM-ES2-4	Cisco 4-port Gigabit Ethernet switch NIM
NIM-ES2-8	Cisco 8-port Gigabit Ethernet switch NIM
NIM-ES2-8-P	Cisco 8-port Gigabit Ethernet switch NIM with PoE support
C-SM-16P4M2X	Cisco 22-port Catalyst L2 switch module with UADP ASIC
C-SM-40P4M2X	Cisco 50-port Catalyst L2 switch module with UADP ASIC
Compute modules	
UCS-E160S-M3/K9	UCS-E, single-wide, Intel Broadwell 6-core CPU; up to 64 GB RAM, 1-2 HDD
UCS-E180D-M3/K9	UCS-E, double-wide, Intel Broadwell 8-core CPU; up to 128 GB RAM, 1-4 HDD
UCS-E1120D-M3/K9	UCS-E, double-wide, Intel Broadwell 12-core CPU; up to 128 GB RAM, 1-4 HDD
Voice modules	
NIM-2FXO	2-port FXO NIM
NIM-4FXO	4-port FXO NIM
NIM-2FXSP	2-port FXS NIM
NIM-4FXSP	4-port FXS NIM
NIM-2FXSP/4FXOP	2-port FXS and 4-port FXO NIM
NIM-4E/M	4-port E/M NIM
NIM-2BRI-NT/TE	2-port BRI (NT and TE) NIM
NIM-4BRI-NT/TE	4-port BRI (NT and TE) NIM
SM-X-8FXS/12FXO	8-port FXS and 12-port FXO single-wide service module
SM-X-16FXS/2FXO	16-port FXS and 2-port FXO single-wide service module
SM-X-24FXS/4FXO	24-port FXS and 4-port FXO single-wide service module
SM-X-72FXS	72-port FXS double-wide service module

Product number	Description
NIM-PVDM-32	32-channel Voice DSP NIM Module
NIM-PVDM-64	64-channel Voice DSP NIM Module
NIM-PVDM-128	128-channel Voice DSP NIM Module
NIM-PVDM-256	256-channel Voice DSP NIM Module
SM-X-PVDM-3000	3080-channel high-density voice DSP module
SM-X-PVDM-2000	2048-channel high-density voice DSP module
SM-X-PVDM-1000	1024-channel high-density voice DSP module
SM-X-PVDM-500	768-channel high-density voice DSP module
NIM-1MFT-T1/E1	1-port multiflex trunk voice/clear-channel data T1/E1 module
NIM-2MFT-T1/E1	2-port multiflex trunk voice/clear-channel data T1/E1 module
NIM-4MFT-T1/E1	4-port multiflex trunk voice/clear-channel data T1/E1 module
NIM-8MFT-T1/E1	8-port multiflex trunk voice/clear-channel data T1/E1 module
DSL/broadband	
NIM-VAB-A	Multi-mode VDSL2/ADSL/2/2+ NIM Annex A
NIM-VA-B	Multi-mode VDSL2/ADSL/2/2+ NIM Annex B
NIM-VAB-M	Multi-mode VDSL2/ADSL/2/2+ NIM Annex M
NIM-4SHDSL-EA	Multi-mode G.SHDSL NIM
Channelized T1/E1 and ISDN PRI	
NIM-1CE1T1-PRI	1-port Multiflex trunk voice/channelized data T1/E1 module
NIM-2CE1T1-PRI	2-port Multiflex trunk voice/channelized data T1/E1 module
NIM-8CE1T1-PRI	8-port Multiflex trunk voice/channelized data T1/E1 module
Serial WAN interface	
SM-X-1T3/E3	1-port clear-channel T3/E3 service module
NIM-1T	1-port serial high-speed WAN interface card
NIM-2T	2-port serial high-speed WAN interface card
NIM-4T	4-port serial high-speed WAN interface card

Product number	Description
Async WAN interface	
NIM-16A	16-port Asynchronous Module
NIM-24A	24-port Asynchronous Module
Wireless WAN (LTE)	
P-LTEAP18-GL	4G/CAT18 LTE Advanced Pro Pluggable - Global
P-LTEA-EA	4G/CAT6 LTE Advanced Pluggable for North American and Europe
P-LTEA-LA	4G/ CAT6 LTE Advanced Pluggable for APAC, ANZ, and LATAM
NIM-LTEA-EA	LTE Advanced for Europe and North America
NIM-LTEA-LA	LTE Advanced for Asia Pacific, Australia and LATAM

Memory, storage, and accessory options

Table 5. Cisco Catalyst 8300 Series memory, storage, and accessory options

Product number	Description
MEM-C8300-8GB	Cisco C8300 Edge Platform - 8 GB Memory
MEM-C8300-16GB	Cisco C8300 Edge Platform - 16GB Memory
MEM-C8300-32GB	Cisco C8300 Edge Platform - 32GB Memory
M2USB-16G	Cisco C8000 Edge Platform - 16G M.2 USB SSD Storage
M2USB-32G	Cisco C8000 Edge Platform - 32G M.2 USB SSD Storage
SSD-M2NVME-600G	Cisco C8000 Edge Platform - 600G M.2 NVMe SSD Storage
C8300-RM-19-1R	Cisco C8300 1RU Edge Platform - Rack Mount kit - 19"
C8300-RM-23-1R	Cisco C8300 1RU Edge Platform - Rack Mount kit - 23"
C8300-RM-19-2R	Cisco C8300 2RU Edge Platform - Rack Mount kit - 19"
C8300-RM-23-2R	Cisco C8300 2RU Edge Platform - Rack Mount kit - 23"
C8300-WM-1R	Cisco C8300 1RU Edge Platform - Wall Mount Kit
C8300-FAN-1R	Cisco C8300 1RU Edge Platform - Fan Tray Assembly
C8300-FAN-2R	Cisco C8300 2RU Edge Platform Fan Tray Assembly
C-RFID-1R	Cisco C8300 1RU Edge Platform - RFID
C-RFID-2R	Cisco C8300 2RU Edge Platform - RFID

Product number	Description
C8300-SM-BLANK	Cisco C8300 SM Blank
C8300-NIM-BLANK	Cisco C8300 NIM Blank
C8300-PIM-BLANK	Cisco C8300 PIM Blank

The fan tray is shipped default with the Cisco Catalyst 8300 Edge Series Platforms.

Optics and transceivers modules

Find a full list of optics and transceivers [here](#).

Resiliency and high availability

Platform redundancy is critical for branch operations, as any downtime has direct impact to a customer's business. To address that priority, Cisco makes a dual power supply default on all the Catalyst 8300 platforms to ensure that there is always a backup power supply module in case the primary power supply fails.

Power supplies

Table 6. Cisco Catalyst 8300 1RU edge platform power supply specifications

Power supply feature	PWR-CC1-250WAC	PWR-CC1-500WAC	PWR-CC1-400WDC	PWR-CC1-400WHV
Power maximum rating	250W	500W PoE (Yes) PoE Budget: 250W	400W	400W
Input-voltage range and frequency	100 to 240 VAC 50 - 60 Hz	100 to 240 VAC 50 - 60 Hz	DC: -40 to -72V	DC: 240 - 380V
Power supply efficiency	80 Plus Silver	80 Plus Silver	85 %	80 Plus Platinum
Input current	3A - 1.25A	6 A - 2.5A	13 A - 7.25 A	1.75 A - 1.1 A
Output ratings	12V 21A	12V 21A 54 V - 4.5 A	12 V 33.5 A	12V 54A
Output holdup time	20ms	20ms	2 ms	20ms
Power supply input receptacles	IEC 320 C14	IEC 320 C14	Terminal block	Saf-D-Grid
Power cord rating	5A	10A	15 A # 14 wire	5A

Table 7. Cisco Catalyst 8300 2RU edge platform power supply specifications

Power supply feature	PWR-CC1-650WAC	PWR-CC1-1000WAC	PWR-CC1-650WDC
Power maximum rating	650W	1000W PoE (Yes) PoE Budget: 250W	650W
Input-voltage range and frequency	100 to 240 VAC 50 - 60 Hz	100 to 240 VAC 50 - 60 Hz	DC: -40 to -72V
Power supply efficiency	80 Plus Gold	80 Plus Gold	80 Plus Gold
Input current	7.2 A - 3 A	11.5 A - 4.63 A	18 A - 10 A
Output ratings	12V 54A	12V 83A	12 V54 A
Output holdup time	20ms	20ms	4 ms
Power supply input receptacles	IEC 320 C14	IEC 320 C14	Terminal block
Power cord rating	10A	12A	20 A # 14 wire

RFID tags: Catalyst 8300 Series Edge Platforms have an embedded RFID tag that holds Serial Number and Product ID for easy asset and inventory management using commercial RFID readers. The RFID tag is external and can be easily removed if needed or can be unselected at the time of ordering.

Software requirements

Cisco DNA Software for the Catalyst 8300 Series offers comprehensive solutions for enterprise branch networks.

Table 8. Catalyst 8300 Series minimum software requirements

Platform Product ID (PID)	Description	Minimum software requirement
C8300-2N2S-4T2X C8300-1N1S-4T2X C8300-2N2S-6T C8300-1N1S-6T	Cisco Catalyst 8300 Series Edge Platforms	Cisco IOS XE Software Release 17.3.2

Table 9a. Software features and protocols for autonomous mode

Feature	Description
Protocols	IPv4, IPv6, static routes, Routing Information Protocol Versions 1 and 2 (RIP and RIPv2), Open Shortest Path First (OSPF), Enhanced Interior Gateway Routing Protocol (EIGRP), Border Gateway Protocol (BGP), BGP Router Reflector, Intermediate System-to-Intermediate System (IS-IS), Multicast Internet Group Management Protocol Version 3 (IGMPv3), Protocol Independent Multicast Sparse Mode (PIM SM), PIM Source-Specific Multicast (SSM), Resource Reservation Protocol (RSVP), Cisco Discovery Protocol, Encapsulated Remote Switched Port Analyzer (ERSPAN), Cisco IOS IP Service-Level Agreements (IPSLA), Call Home, Cisco IOS Embedded Event Manager (EEM), Internet Key Exchange (IKE), Access Control Lists (ACL), Ethernet Virtual Connections (EVC), Dynamic Host Configuration Protocol (DHCP), Frame Relay, DNS, Locator ID Separation Protocol (LISP), Hot Standby Router Protocol (HSRP), RADIUS, Authentication, Authorization, and Accounting (AAA), Application Visibility and Control (AVC), Distance Vector Multicast Routing Protocol (DVMRP), IPv4-to-IPv6 Multicast, Multiprotocol Label Switching (MPLS), Layer 2 and Layer 3 VPN, IPsec, Layer 2 Tunneling Protocol Version 3 (L2TPv3), Bidirectional Forwarding Detection (BFD), IEEE 802.1ag, and IEEE 802.3ah
Encapsulations	Generic Routing Encapsulation (GRE), Ethernet, 802.1q VLAN, Point-to-Point Protocol (PPP), Multilink Point-to-Point Protocol (MLPPP), Frame Relay, Multilink Frame Relay (MLFR) (FR.15 and FR.16), High-Level Data Link Control (HDLC), Serial (RS-232, RS-449, X.21, V.35, and EIA-530), and PPP over Ethernet (PPPoE)
Traffic management	Quality of Service (QoS), Class-Based Weighted Fair Queuing (CBWFQ), Weighted Random Early Detection (WRED), Hierarchical QoS, Policy-Based Routing (PBR), Performance Routing (Pfr), and Network-Based Application Recognition (NBAR)
Cryptographic algorithms	Encryption: DES, 3DES, AES-128 or AES-256 (in CBC and GCM modes) Authentication: RSA (748/1024/2048 bit), ECDSA (256/384 bit) Integrity: MD5, SHA, SHA-256, SHA-384, SHA-512
Unified Communication	Call Admission Control (CAC), Cisco Unified Boarder Element(CUBE), Cisco Unified Communications Manager (CUCM), Dialer, ISDN, Interactive Voice Response (IVR), RADIUS, RFC4040 based Clear Channel codec signaling with SIP, Resource Reservation Protocol (RSVP), RTP Control Protocol (RTCP), Service Advertisement Framework(SAF), Session Border Controller(SBC), Session Initiation Protocol for VoIP(SIP), Survivable Remote Site Telephony (SRST), Secure Real-time Transport Protocol(SRTP), Voice over Frame Relay (FRF.11), Voice Over IP and Voice modules

Table 9b. Software features and protocols for controller mode

Feature	Description
Core Features	IPv4, IPv6, static routes, Open Shortest Path First (OSPF), Enhanced Interior Gateway Routing Protocol (EIGRP), BoGateway Protocol (BGP), Overlay Management Protocol (OMP), Application Aware Routing (AAR), Traffic EngineerinService Insertion, zero-trust, whitelisting, tamper-proof module, DTLS/TLS, IPsec, classification, prioritization, low latequeuing, remarking, shaping, scheduling, policing, mirroring, Multicast IPv4 Support, Service advertisement and inserpolicy, SNMP, NTP, DNS client, Dynamic Host Configuration Protocol (DHCP), DHCP client, DHCP server, DHCP relaarchival, syslog, SSH, SCP, Cflowd v10 IPFIX export, IPv6 for transport-side, VRRP, MPLS, NAT (DIA, Service-side, soverload/PAT, NAT64, etc), NAT pools, split DNS, Access Control Lists (ACL), Bidirectional Forwarding Detection (BFNetconf over SSH, CLI, NTP server support, BFD with service-side BGP, BGP community propagation to OMP, 6 SLAfor AAR, Trustsec/SDA (Inline SGT propagation), custom app with SD-AVC, multicast AAR, dynamic on-demand tunnSM, OSPFv3, route policies, Multi-VRF support

Feature	Description
Encapsulations	Generic Routing Encapsulation (GRE), Ethernet, 802.1q VLAN
Application Experience	Quality of service (QoS), Forward Error Correction (FEC), COS Marking, Weighted Random Early Detection (WRED) Hierarchical QoS, Policy-Based Routing (PBR), Network-Based Application Recognition (NBAR), Software Defined AVisibility and Control (SD-AVC), per tunnel QoS, Cloud onRamp for SaaS, Enhanced Office 365 traffic steering, DirecAccess, Flexible Netflow (FnF)
Cryptographic Algorithms	Encryption: AES-256 (in CBC and GCM modes), Internet Key Exchange (IKE), Cisco PKI Authentication: AAA, RSA (2048 bit), ESP-256-CBC, HMAC-SHA1, ECDSA (256/384 bit) Integrity: SHA-1, SHA-2
Security	Built-in end-to-end segmentation (VPNs), ZBFW, PKI, Cisco DNA Layer Security, Snort IPS/IDS, URL Filtering, Advanced Protection(AMP), ThreatGrid(TG), ALG for ZBFW
Unified Communication	Cube Connector, SRST, Voice Modules

Licensing

All Cisco Catalyst 8300 Series Edge Platforms are offered only with a Cisco DNA Software subscription, Enterprise Agreement, and Managed Service Licensing Agreement (MSLA). For more details, refer to this [licensing guide](#).

Cisco DNA stack:

- Cisco DNA Essentials
- Cisco DNA Advantage
- Cisco DNA Premier

Network stack:

- Network Essentials
- Network Advantage

Specifications

Table 10. Mechanical specifications

Description	Specification	
Part number	C8300-2N2S-4T2X C8300-2N2S-6T	C8300-1N1S-4T2X C8300-1N1S-6T
Dimensions (H x W x D)	3.5 in. x 17.25 in. x 18.52 in.	1.73 in. x 17.50 in. x 16.25 in.
Rack Units (RU)	2RU	1RU
Chassis weight with 2X AC power supplies and fan tray	40 lbs	20 lbs

Description	Specification	
Input voltage	AC: 85 to 264 VAC DC: -40 to 72V; 48V nominal	
Operating temperature	32 to 104°F (0 to 40° C)	
Storage temperature	-40 to 150°F (-40 to 70° C)	
Relative humidity operating and nonoperating noncondensing	Ambient (noncondensing) operating: 5 to 85% Ambient (noncondensing) nonoperating and storage: 5 to 95%	
Altitude	0 to 10,000 feet (0 to 3050 meters)	
Mean Time Between Failures (MTBF)	710,300 hours	536,060 hours

Table 11. Safety and compliance

Description	Specification	
Safety certifications	UL 60950-1 CAN/CSA-C22.2 No. 60950-1 EN 60950-1 IEC 60950-1 AS/NZS 60950-1 IEC/EN 60825 Laser Safety FDA: Code of Federal Regulations Laser Safety	
EMC (Emissions)	47 CFR Part 15 Class A ICES 003 Class A AS/NZS CISPR 32 Class A CISPR 32 Class A EN55032 Class A VCCI-CISPR 32 Class A CNS-13438 Class A KN32 Class A IEC/EN 61000-3-2: Power Line Harmonics IEC/EN 61000-3-3: Voltage Fluctuations and Flicker	

Description	Specification
EMC (Immunity)	IEC/EN-61000-4-2: Electrostatic Discharge Immunity IEC/EN-61000-4-3: Radiated Immunity IEC/EN-61000-4-4: Electrical Fast Transient Immunity IEC/EN-61000-4-5: Surge AC, DC, and Signal Ports IEC/EN-61000-4-6: Immunity to Conducted Disturbances IEC/EN-61000-4-8: Power Frequency Magnetic Field Immunity IEC/EN-61000-4-11: Voltage DIPS, Short Interruptions, and Voltage Variations KN35
EMC (ETSI/EN)	EN300 386: Telecommunications Network Equipment (EMC) EN55032: Multimedia Equipment (Emissions) EN55024: Information Technology Equipment (Immunity) EN55035: Multimedia Equipment (Immunity) EN61000-6-1: Generic Immunity Standard

Services

Cisco Customer Experience Support Services for Catalyst 8000 platforms and Cisco DNA Software for SD-WAN and Routing

This section discusses the Cisco Support Services available for Catalyst 8000 platforms and associated Cisco DNA Software for SD-WAN and Routing, as well as optional Support Service offers.

- **Catalyst 8000 platforms:** Cisco Solution Support is the default and recommended Cisco Support Service. However, Cisco Solution Support is not mandatory; it can be removed or replaced with another Cisco support service or partner service per the customer's preference.
- **Cisco DNA Software for SD-WAN and Routing:** Cisco Solution Support is the default Cisco support service. However, Cisco Solution Support is not mandatory; the customer may choose to use the Cisco Subscription Embedded Software Support included with the purchase of this software.

Note:

- When Solution Support is selected, it must be ordered on both the Catalyst 8000 platform and Cisco DNA Software for SD-WAN and Routing for complete customer entitlement to this premium support service.
- SD-WAN and Routing, with both Solution Support or Cisco Subscription Embedded Software Support, customers are entitled to maintenance releases and software updates for **Cisco DNA SD-WAN and Routing software only**. The support for the Catalyst 8000 platform's OS and network stack, along with OS updates, is covered by the support contract on the Catalyst 8000 platform.

Cisco Solution Support is a premium support purpose-built for today's multiproduct, multivendor network environments and provides:

- A primary point of contact centralizing support across a solution deployment
- Solution, product, and interoperability expertise
- No requirement for customers to isolate their issue to a product to open a case
- 30-minute service response objective for Severity 1 and 2 cases
- Prioritized case handling over product support cases
- Product support team coordination (Cisco and Solution Support Alliance Partners)
- Accountability for multiproduct, multivendor issue management from first call to resolution, no matter where the issue resides

Learn more about Cisco Solution Support at www.cisco.com/go/solutionsupport

Cisco Subscription Embedded Software Support includes:

- Access to support and troubleshooting via online tools and web case submission. Case severity or escalation guidelines are not applicable.
- Cisco Technical Assistance Center (TAC) access 24 hours per day, 7 days per week to assist by telephone, or web case submission and online tools with application software use and troubleshooting issues.
- Access to www.cisco.com, providing helpful technical and general information on Cisco products, as well as access to Cisco's online Software Center library.

Note: No additional products or fees are required to receive embedded support for Cisco DNA Software for SD-WAN and Routing. However, if using embedded support for this software, hardware support for the Catalyst 8000 platforms must be purchased separately, as Cisco Subscription Embedded Software Support does not cover hardware. In this case, Cisco Smart Net Total Care Service is recommended for Catalyst 8000 platforms.

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Ordering information

To place an order, visit the [Cisco Ordering Home Page](#). To download software, visit the [Cisco Software Center](#).

For more information

For more information about the Cisco Catalyst 8300 Series Edge Platforms, visit <https://www.cisco.com/go/C8300> or contact your local Cisco account representative.

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