

Cisco Catalyst 8300-1N1S-6T (C8300-1N1S-6T)

Cisco Catalyst 8300-1N1S-6T - Router 1GbE - rack-mountable - for P/N: C8300-DNA



Cisco Catalyst 8300 platforms deliver Cisco's secure, cloud-scale SD-WAN solution for the branch. The Catalyst 8300 series is purpose-built for high performance and integrated SD-WAN services along with flexibility to deliver security and networking services together from the cloud or on premises. It provides higher WAN port density and a redundant power supply capability. Powered by Cisco's fully programmable software architecture, and API support, these platforms can facilitate automation at scale to achieve zero-touch IT capability while migrating workloads to the cloud. Catalyst 8300 series edge platforms also come with an infrastructure that secures the platforms against threats and vulnerabilities with integrity verification and remediation of threats.

Key Selling Points

- Accelerated services with Cisco software-defined WAN
- Application performance optimization
- Multi-layer security
- Unified communications
- Cloud-native agility with a programmable software architecture
- 5G-ready platform

Product Features

Accelerated services with Cisco software-defined WAN

Cisco SD-WAN is a set of intelligent software services that allow you to connect users, devices, and branch office locations reliably and securely across a diverse set of WAN transport links. Cisco Catalyst 8300 series edge platforms can dynamically route traffic across the "best" link based on up-to-the-minute application and network conditions for great application experiences. You get tight control over application performance, bandwidth usage, data privacy, and availability of your WAN links - control you need as your branches conduct greater volumes of mission-critical business with both on-premises and cloud controllers.

Application performance optimization

Ensure that SD-WAN networks meet SLAs and maintain strong performance, even if network problems occur. With branch multi-cloud access, you can accelerate your SaaS applications with a simple template push from the SD-WAN controller. Features like TCP optimization, forward error correction, and packet duplication help application performance for a better user experience.

Multi-layer security

You can move your traditional and complex WAN networks to a more agile software-defined WAN with integrated security. The Cisco Catalyst 8300 series edge platforms connect branch offices to the Internet and cloud, with superior protection against major web attacks. Secure direct Internet access (DIA) to the branches helps optimize branch workloads for improved performance, specifically for cloud-hosted applications. At the same time, DIA ensures your branch is protected from external threats.

Unified communications

The Cisco Catalyst 8300 edge platforms offer rich voice services. In SD-WAN mode, the Catalyst 8300 series prevents internal and external outages using SRST enabling branch router to assume role of call control PBX for telephony survivability.

Cloud-native agility with a programmable software architecture

Cisco continues to offer a feature-rich routing stack on the Cisco Catalyst 8300 series edge platforms. IP routing, IPSec, QoS, firewall, network-based application recognition (NBAR), and many other features are part of Cisco's programmable software architecture with API support and a wide variety of protocols and configurations.

5G-ready platform

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.

Main specifications

Product Description	Cisco Catalyst 8300-1N1S-6T - router - rack-mountable
Device Type	Router
Enclosure Type	Rack-mountable - 1U
Data Link Protocol	Gigabit Ethernet
Performance	VPN throughput (IMIX IPSec): 5 Gbps VPN throughput (1400 B IPSec): 1.9 Gbps IPv4 forwarding throughput (1400-byte packet size): 19.7 Gbps
Capacity	Maximum overlay tunnels: 6000 ACL: 4000 Access Control Entries (ACEs) per system (IPv4): 72000 IPv4 routes: 1600000 IPv6 routes: 1500000 Queues: 16000 NAT sessions: 1200000 Firewall sessions: 512000 Virtual Routing and Forwarding (VRF) entries: 4000
Network / Transport Protocol	IPSec, NTP, DNS, DHCP, RSVP, RTCP, PPPoE, L2TPv3

Routing Protocol	Policy-based routing (PBR), GRE, OSPF, BGP, VRRP, MPLS, OSPFv3, RIP, RIP-2, EIGRP, IS-IS, IGMPv3, HSRP, DVMRP, Bidirectional Forwarding Detection (BFD)
Remote Management Protocol	OMP, SNMP, SCP
VoIP Protocols	SRTP
Features	URL filtering, AAA, QoS, CoS, FEC, HQoS, WRED, FNF, NBAR, AAR, DTLS, DHCP client, DHCP server, Syslog support, NAT support, PAT support, ACL support, BFD, CAC, IVR, SAF, CBWFQ, HDLC, MLFR, MLPPP, PPP, PIM, SSM, ERSPAN, Cisco IPSLA, EEM, EVC, AVC
Compliant Standards	IEEE 802.1Q, IEEE 802.1ag, IEEE 802.3ah
Dimensions (WxDxH)	44.5 cm x 41.3 cm x 4.39 cm
Weight	9.07 kg
System Requirements	Cisco IOS XE 17.3.2
Designed For	P/N: C8300-DNA

Extended specification

General

Device Type	Router
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Connectivity Technology	Wired
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Routing Protocol	Policy-based routing (PBR), GRE, OSPF, BGP, VRRP, MPLS, OSPFv3, RIP, RIP-2, EIGRP, IS-IS, IGMPv3, HSRP, DVMRP, Bidirectional Forwarding Detection (BFD)
Remote Management Protocol	OMP, SNMP, SCP
Encryption Algorithm	PKI, 256-bit AES-CBC, 256-bit AES-GCM, IKE, 2048-bit RSA, ECDSA 256-bit, ECDSA 384-bit, ESP, HMAC, SHA-1, SHA-2, TLS, DES, 1024-bit RSA, 128-bit AES, 256-bit SHA, 384-bit SHA, 512-bit SHA, 748-bit RSA, MD5, Triple DES
Authentication Method	Secure Shell (SSH), RADIUS
Features	URL filtering, AAA, QoS, CoS, FEC, HQoS, WRED, FNF, NBAR, AAR, DTLS, DHCP client, DHCP server, Syslog support, NAT support, PAT support, ACL support, BFD, CAC, IVR, SAF, CBWFQ, HDLC, MLFR, MLPPP, PPP, PIM, SSM, ERSPAN, Cisco IPSLA, EEM, EVC, AVC
Compliant Standards	IEEE 802.1Q, IEEE 802.1ag, IEEE 802.3ah, UL 60950-1, CAN/CSA C22.2 No. 60950-1, EN 60950-1, IEC 60950-1, AS/NZS 60950-1, IEC/EN 60825, FDA, AS/NZS CISPR 32 Class A, CISPR 32 Class A, CNS 13438 Class A, EN 300 386, EN 55032, EN 55032 Class A, EN 55035, EN 61000-3-2, EN 61000-3-3, EN 61000-6-1, EN55024, FCC CFR47 Part 15 B Class A, ICES-003 Class A, IEC 61000-3-2, IEC 61000-3-3, IEC/EN 61000-4-11, IEC/EN 61000-4-2, IEC/EN 61000-4-3, IEC/EN 61000-4-4, IEC/EN 61000-4-5, IEC/EN 61000-4-6, IEC/EN 61000-4-8, KN32 Class A, KN35
Processor	Intel
RAM	8 GB
Flash Memory	8 GB
Hard Drive	16 GB

Expansion / Connectivity

Interfaces	WAN / LAN: 6 x Ethernet 1000 USB: 1 x
Expansion Slots	1 (total) / 1 (free) x service module (SM) 1 (total) / 1 (free) x NIM
Installed Modules Qty (Max)	0 (installed) / 2 (max)

Miscellaneous

MTBF	536,060 hours
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Power

Power Device	Internal power supply
Installed Qty	1 (max)

Software / System Requirements

OS Required	Cisco IOS XE 17.3.2
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Environmental Parameters

Min Operating Temperature	0 °C
Max Operating Temperature	40 °C
Humidity Range Operating	5 - 85% (non-condensing)

Dimensions & Weight

Width	44.5 cm
Depth	41.3 cm
Height	4.39 cm
Weight	9.07 kg

IP Telephony

VoIP Protocols	SRTP
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Compatibility Information

Designed For	P/N: C8300-DNA
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