

Cisco Nexus 9508 Chassis

DATASHEET

8-Slot Modular Data Center Switch

PRODUCT OVERVIEW

The **Cisco Nexus 9508** is a high-density 8-slot modular switch designed for large enterprise data centers, service providers, and cloud core/spine deployments. It offers massive scalability, midplaneless architecture for efficient airflow, and high port density ranging from 1G up to 400G speeds.

CHASSIS ARCHITECTURE & CAPACITY

Specification	Details / Value
Form Factor	13 Rack Units (13RU) Modular Chassis
Line-Card Slots	8 Payload Slots for Line Cards
Fabric Modules	Up to 6 Fabric Modules (N+1 / N+N Redundancy)
Supervisor Slots	2 Supervisor Slots (1+1 Redundancy)
System Switching Capacity	Up to 30+ Tbps (depending on Line Cards/ASICs)
Forwarding Capacity	Up to 10+ Billion Packets Per Second (Bpps)
System Architecture	Direct-attach Line Cards to Fabric (Midplaneless)

Line Card & Speed Options

- 400G Connectivity:** Up to 128 x 400G ports
- 100G Connectivity:** Up to 256 x 100G ports
- 40G Connectivity:** Up to 288 x 40G ports
- 1/10/25G Connectivity:** Up to 1152 x 1/10/25G ports
- Flexibility:** Supports N9K-X9000 & Cloud Scale Line Cards

Power & Redundancy

- Power Slots:** Up to 8 Power Supply Units (PSUs)
- PSU Options:** 3KW AC/DC High Efficiency (N+1, N+N)
- System Cooling:** 3 Fan Trays (Front-to-Back Airflow)
- Redundancy:** Dual Supervisors, Redundant Power & Fans

SOFTWARE & NETWORK PROTOCOLS

Operating Systems	Cisco NX-OS Software / Cisco ACI (Spine/Leaf Fabric Mode)
-------------------	---

Protocols Supported	VXLAN EVPN, SRv6, BGP, OSPF, IS-IS, MPLS, PTP (IEEE 1588)
Management & Automation	Nexus Dashboard, Telemetry, Ansible, Terraform, Python, REST APIs