Cisco 8400 Series Secure Routers

A Part of the Cisco 8000 Series Secure Routers Family



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Overview

Cisco 8400 Series Secure Routers deliver secure networking—simplified. Powered by the all-new secure networking processor and the unified Cisco secure networking platform, Cisco 8400 Series Secure Routers deliver robust, platform-level security; advanced performance engineering through routing and SD-WAN; and onpremises, infrastructure-as-code or cloud management flexibility that enables businesses to seamlessly scale and grow. Each class of secure routers is designed to deliver risk reduction, enhanced reliability, and future readiness.

Platform highlights

Cisco 8400 Series Secure Routers are optimized for campus environments and deliver powerful and scalable performance, centralized management, and advanced threat protection across internet edge networks. These secure routers support seamless integration with cloud and on-premises systems, providing a unified, resilient platform to connect and secure users, devices, and applications at enterprise scale.

Industries

- Higher education (college/university campuses)
- Healthcare (large hospitals, medical campuses)
- Corporate (enterprise headquarters)
- Government (municipal complexes)

Sites

- University or college campuses
- Large hospital or healthcare campuses
- Corporate headquarters with multiple buildings

Use cases

- Secure routing or SD-WAN for thousands of users/ devices
- Unified management and security across distributed buildings
- Support for high-bandwidth applications like video, research, and telemedicine

Key features

Hardware-accelerated security and networking

- Dedicated secure networking processor for fast cryptography and deep packet inspection
- Hardware acceleration ensures high throughput with robust threat protection

Efficient design for campus deployments

- Shorter-depth models for greater accessibility in small racks
- Front-panel accessibility for label trays

Secure connectivity for campuses

- Combines NGFW security, routing, and SD-WAN in one unified platform
- Simplifies campus infrastructure and management with all-in-one secure access

Secure networking with PQC readiness

- Post-quantum cryptography (PQC) safeguards against future quantum threats
- Future-proofs campus security with advanced, quantum-resistant encryption

Offload AI and ML tasks for faster response

- Hardware acceleration for AI and ML tasks
- Optimized for faster AI and ML computation

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Models and specifications

The Cisco 8400 Series Secure Routers are 1RU fixed form factor devices. There are three models: Cisco C8455-G2, 8455-G2-MX, and 8475-G2. Cisco C8455-G2 and the 8455-G2-MX provide 8 x 1 GE, 2 x 10 GE, and 2 x 25 GE ports, whereas the Cisco 8475-G2 provides 8 x 1 GE, 8 x 10 GE, and 4 x 25 GE ports. Learn more about the new 8455-G2-MX.

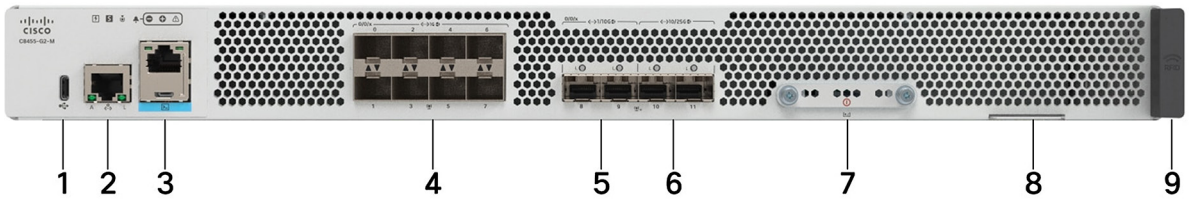


Figure 1. Front view of a Cisco C8455-G2 Secure Router

Table 1. Cisco C8455-G2 Secure Router components

Label	Description
1	USB 3.0 Type-C storage
2	Management RJ45 Port
3	Console RJ45/micro-USB port
4	8 x 1G SFP Ports
5	2 x 1/10G SFP+ Ports
6	2 x 10/25G SFP28 Ports
7	M.2 storage slot
8	Label Tray
9	RFID

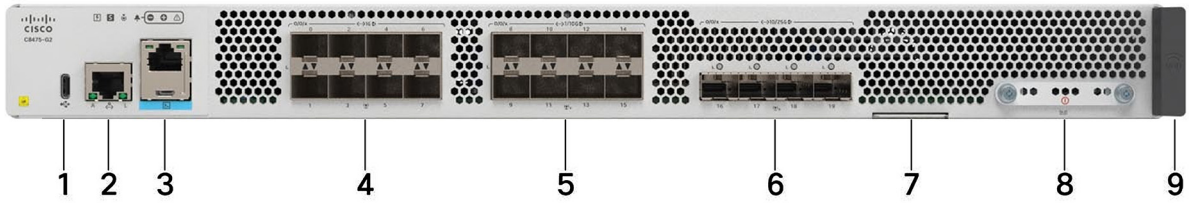


Figure 2. Front view of a Cisco C8475-G2 Secure Router

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Table 2. Cisco C8475-G2 Secure Router components

Label	Description
1	USB 3.0 Type-C storage
2	Management RJ45 Port
3	Console RJ45/micro-USB port
4	8 x 1G SFP Ports
5	8 x 1/10G SFP+ Ports
6	4 x 10/25G SFP28 Ports
7	Label tray
8	M.2 storage slot
9	RFID

Table 3. Technical specifications

	C8455-G2	C8475-G2
Interfaces and slots		
WAN ports	8 x 1 GE (SFP) 2 x 1/10 GE (SFP+) 2 x 10/25 GE (SFP28)	8 x 1 GE (SFP) 8 x 1/10 GE (SFP+) 4 x 10/25 GE (SFP28)
Management port	1 x RJ45 OOB management 1 x RJ45/1 x micro-USB	1 x RJ45 OOB management 1 x RJ45/1x micro-USB
Memory and storage		
DRAM	32 GB (default)	32 GB (default) 64 GB**
Storage	64 GB (default) 600 GB 2 TB	64 GB (default) 600 GB 2 TB

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	C8455-G2	C8475-G2
Power supply	250W AC 400W DC 400W HVDC	400W AC 400W DC 400W HVDC
Throughput		
Forwarding (512B)	Up to 67 Gbps	Up to 91 Gbps
IPsec (512B)	Up to 31 Gbps	Up to 45 Gbps
SD-WAN* (512B)	Up to 15.5 Gbps	Up to 21.7 Gbps
Security (EMIX)	Up to 9.5 Gbps	Up to 10.9 Gbps
Scale		
IPv4/IPv6 routes	Up to 5.8M	Up to 5.8M
IPsec tunnels	Up to 6K (Starting from IOS XE 26.2.1) Up to 3.5K (Prior to IOS XE 26.2.1)	Up to 6K (Starting from IOS XE 26.2.1) Up to 3.5K (Prior to IOS XE 26.2.1)

*SD-WAN feature combination: IPsec + QoS + Deep packet inspection + Flexible NetFlow
**Supported from IOS XE 17.18.3

Table 4. Physical specifications

	C8455-G2	C8475-G2
Dimensions (H x W x D)	1.73 in x 17.50 in x 12 in	1.73 in x 17.50 in x 16.25 in
Rack Units (RU)	1 RU	1 RU
Chassis weight with 2 x AC power supplies and fan tray	12.5 lb	15.5 lb
Operating temperature	32° to 104° F	32° to 104° F
Storage temperature	-40° to 150° F	-40° to 150° F
Relative humidity (ambient, non-condensing)	Operating: 10 to 85% Storage: 5 to 95%	Operating: 10 to 85% Storage: 5 to 95%

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	C8455-G2	C8475-G2
NEBS criteria levels	GR-1089 and GR-63	GR-1089 and GR-63
Altitude	-500 to 10,000 ft	-500 to 10,000 ft

Software management

The minimum Cisco IOS XE release versions and Meraki Dashboard for the Cisco 8400 Series Secure Routers are listed below:

	Device OS	Cisco Catalyst SD-WAN Manager
Cisco C8455-G2	Starting IOS XE 17.15.3	Starting SD-WAN Release 20.15.3
Cisco C8475-G2	Starting IOS XE 17.15.3	Starting SD-WAN Release 20.15.3

	Device OS	Management Dashboard
Cisco 8455-G2-MX	MX 19.2	Cisco Meraki dashboard

Cloud management for IOS XE Secure Routers delivers simplified cloud operations by combining Meraki's ease of use with IOS XE's scale and rich features. Please review the at-a-glance to learn more.

Ordering information

For a detailed overview of the ordering process, please visit the Cisco 8000 Series Secure Routers Ordering Guide.

Cisco 8000 Series Secure Routers with Meraki OS Ordering Guide.

Warranty

Cisco 8400 Series Secure Routers come standard with a Cisco Limited 2-Year Return To Factory Hardware Warranty. For more information, refer to the Cisco 8000 Series Secure Routers Ordering Guide.

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Sustainability profile

Cisco is embedding sustainability into the product lifecycle—from manufacturing to end of use. Designed with consideration for Cisco's Circular Design Principles, our products feature both individual and portfolio-wide programs and innovations, including those that address efficient architecture design, power consumption, energy management, packaging sustainability, and takeback. These elements are pivotal in reducing operational costs and advancing net-zero Greenhouse Gas (GHG) emissions targets, and other sustainability-related ambitions.

Information about Cisco's Environmental, Social, and Governance (ESG) initiatives and performance is available in the Cisco Purpose Reporting Hub.

Table 5. Sustainability references

Sustainability topic		Description
Energy Management	Energy management dashboard	The energy management dashboard on the Catalyst SD-WAN Manager offers comprehensive energy management capabilities, allowing users to monitor energy usage, energy mix, costs, and greenhouse gas emissions in real time. Energy Management
	Environmental monitoring configuration	The environmental monitoring chapter in the System Management Configuration Guide provides guidelines for configuring monitoring of environmental conditions of chassis components.
Ecolabels	ENERGY STAR®	Cisco 8400 Series Secure Routers are ENERGY STAR-certified and meet energy-efficiency specifications set by the U.S. Environmental Protection Agency (EPA), helping customers save energy and money while helping to protect the environment, improve air quality, and protect public health.
	80 PLUS Platinum/ Titanium Certified Power Supply Units	Cisco 8400 Series Secure Routers support high-efficiency power supply units. 80 PLUS Platinum Certified PSUs offer up to 94% efficiency at 50% load and titanium PSUs reaching up to 96% efficiency at 50% load at 230V input.
Materials, modularity, and reuse	Hardware standardization and modularity	Cisco 8400 Series Secure Routers use standard subassemblies and common components across products to streamline production and enhance repairability and upgradability.

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Sustainability topic		Description
	Simplified architecture	Cisco 8400 Series Secure Routers offer a simplified architecture by consolidating multiple discreet ASIC/NPU components into a central System-on-Chip (SoC) architecture, providing multiple discrete functions in a more integrated design.
	Powder-coat finish	Cisco 8400 Series Secure Routers use a powder-coating finish instead of oil-based wet paint. In comparison, a powder-coating finish reduces the amount of harmful solvents used and Volatile Organic Compounds (VOCs) emitted during the painting process.
	Bezel-free design	Cisco 8400 Series Secure Routers use a bezel-free design reducing plastic usage.
	Cisco Takeback and Reuse Program	This program allows customers to return used equipment for responsible recycling and reuse. Takeback and Reuse Program
	Cisco Refresh	This program offers certified remanufactured products, providing cost-effective alternatives to new equipment. Cisco Refresh
Packaging	Removal of single-use plastic bags	Cisco 8400 Series Secure Routers are packaged with kraft paper materials, removing single-use plastic bags.
	Foam reduction	Cisco 8000 Series Secure Routers are packaged with corrugated and fiber flute materials containing minimum 25% post-consumer recycled content. Circular economy and packaging sustainability
	Accessory opt-in	Accessory opt-in allows customers to select whether to include the accessory kit. Not including the kit results in using fewer materials and reducing waste. The default is now to not include the kit unless it is required. Cisco 8400 Series Secure Routers Ordering Guide

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Sustainability topic		Description
Regulatory Compliance	Environmental compliance	Information regarding Cisco compliance with applicable environmental laws and regulations is available in the environmental compliance section of the Cisco Purpose Reporting Hub. Enviromental compliance
	Product Approval Status (PAS)	Information regarding the certification status for given Cisco products in certain countries is available at Cisco's self-service PAS database. PAS database
	Product-related materials compliance	This page addresses Cisco's position regarding relevant product-related materials legislation, such as Restriction of Hazardous Substances (RoHS); Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH). RoHS and REACH
	Waste Electrical and Electronic Equipment (WEEE), battery, and packaging compliance	This page discusses Cisco's position regarding relevant product-related legislation on recycling, battery, and packaging. WEEE, battery and packaging
	Cisco packaging materials and codes	This table provides material identification for packaging used for Cisco products. Packaging materials and codes
General	Sustainability inquiries	For ESG or CSR inquiries, please contact your Cisco account team.
	Cisco policies, positions, and guides	Links to select Cisco environmental sustainability policies, positions, and guides are provided in the "Policies, positions, and guides" section of the Cisco Purpose Reporting Hub. Policies, positions, and guides
	Cisco Green Pay	This page provides an overview of Cisco Green Pay, a financing program aimed at promoting more sustainable technology adoption by providing flexible payment options. Green Pay

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Appendix

Safety and compliance

Chassis

The section below lists the safety and compliance information for the Cisco 8400 Series Secure Router chassis.

Safety and certifications	EMC and EMI compliance
• UL 60950-1 • CAN/CSA-C22.2 No. 60950-1 • EN 60950-1 • IEC 60950-1 • AS/NZS 60950-1 • GB4943	• 47 CFR Part 15 Class A • ICES 003 Class A • AS/NZS CISPR 32 Class A • CISPR 22/CISPR 32 Class A • EN55022/EN55032 Class A • VCCI Class A • KN32 Class A • IEC/EN 61000-3-2: Power Line Harmonics • IEC/EN 61000-3-3: Voltage Fluctuations and Flicker

Document history

New or revised topic	Described in	Date
Updates to Models and specifications	Models and specifications section	May 1, 2026
Updates to Software management	Software management section	May 1, 2026
Document created	Datasheet	June 10, 2025

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