

DATA SHEET

3848

Edge Server



Product overview

Ciena’s 3848 Edge Server, powered by the field-proven Vyatta® Network Operating System (Vyatta NOS), is a one rack unit (1RU), natively secure, 1G- and 10G-optimized customer premises equipment (CPE). It offers various capabilities, making it flexible for multiple on-premises and cloud-access use cases for medium to large enterprise branch offices, headquarters, and data center locations. It also supports power over Ethernet (PoE)/PoE+, which can power access points (APs), phones, cameras, and other PoE-enabled devices.

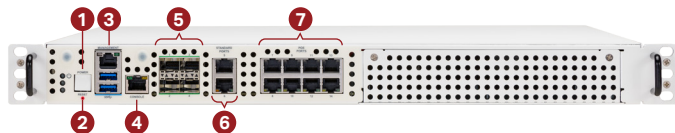
Ciena’s Cirrus Orchestrator automates all aspects of the 3848’s lifecycle management—from zero-touch provisioning and service fulfillment to assurance—ensuring simple and efficient operations.

Product description

Ciena’s 3848 is a 1RU with an Intel Xeon 8-core processor, 32GB memory, and 512GB storage. It supports ten 1GbE RJ-45 and four 1/10GbE SFP/SFP+ ports for flexible installation options.

Features and benefits

- Medium- to large-branch, headquarters or data center 1 RU CPE
- Up to 8 CPU cores, 32GB of DRAM and 512GB of storage
- 8 x 1GbE RJ45 and 2 x 1/10 GbE SFP/SFP+ WAN ports
- 2 x 1GbE RJ45 and 2 x 1/10 GbE SFP/SFP+ LAN ports
- Built-in PoE/PoE+ power support
- Fixed AC power supply
- 3 integrated fans with front to back airflow



1. Power button
2. Reset button
3. 1GbE RJ-45 management port and 2x USB-A 3.0 ports
4. Console port (RJ45 connector using RS232 signaling)
5. 1/10GbE SFP/SFP+ ports (1 through 4)
6. 1GbE RJ-45 ports (5 through 6)
7. 1GbE RJ-45 PoE/PoE+ ports (7 through 14)

Figure 1. Front panel of 3848



- 8. 110V/220V power input
- 9. 3x built-in fans

Figure 2. Rear panel of 3848

Features and benefits

Power over Ethernet: The 3848 model includes eight ports with both PoE (802.3af) and PoE+ (802.3at). This feature eliminates the requirement for extra hardware to power essential branch devices. Consequently, APs, phones, cameras, and other PoE-enabled devices can be powered without the use of AC adapters, PoE converters, or unmanaged PoE switches.

Built-in application layer visibility: The 3848 provides robust layer 7 deep-packet inspection and granular fingerprinting of applications, from business to recreational apps, such as YouTube. This unprecedented visibility allows the optimization of network resources and the maintenance of optimal network performance.

Application-aware routing: The 3848 is designed to optimally use links across the enterprise wide area network (WAN), with a variety of other connectivity options, including broadband internet, multi-protocol label switching (MPLS), among others. Its policy- and application-based forwarding capabilities allow it to enforce business rules set by the enterprise, directing application traffic along a preferred path.

Native security: The 3848 supports Trusted Platform Module 2.0 (TPM 2.0) and secure boot capabilities, ensuring the hardware securely stores its secret keys and boots only with a trustworthy Vyatta NOS.

Centralized management: The 3848 is centrally managed and orchestrated by Ciena's Cirrus Orchestrator. Cirrus Orchestrator simplifies deployment and management with zero-touch remote deployment, automatic firmware updates and security patches, role-based administration accompanied by change logging and alerts, templating tools, and monitoring and analytics. Cirrus Orchestrator can be deployed in cloud or on-premises environments.

For detailed features and benefits of Vyatta NOS and Cirrus Orchestrator, see the [Vyatta Service Edge datasheet](#).

Specifications

CPU, memory, and storage

CPU cores	8-core @ 2.1 GHz
System memory (RAM)	32GB (DDR4 with ECC)
Storage (SSD)	512GB (SSD)

Interfaces

Ethernet ports	10x 1GbE RJ-45 ports 4x 1/10GbE SFP/SFP+ ports
Local access	1GbE RJ-45 management ports 2x USB-A 3.0 ports 1x console port

Power over Ethernet

PoE/PoE+ capabilities	8 ports (7 through 14) can support PoE and PoE+ <ul style="list-style-type: none">• Up to 15 W per PoE port• Up to 30 W per PoE+ port• Up to 65 W PoE budget for all PoE and PoE+ ports
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Dimensions and power

Form factor	1RU
Size (W x D x H)	430 mm x 411 mm x 44 mm 16.93 in x 16.18 in x 1.73 in
Weight	5.46 kg (12 lbs)
Power supply	AC (integrated power supply)
External power adapter input (AC)	100–240 V AC, 50–60 Hz
Power consumption	189 W (typical) 480 W (maximum)
Power cords	Available for distinct countries (refer to the ordering guide)
Cooling	3 fans, front-to-back airflow

Environmental

Operating temperature	32°F to 104°F 0°C to 40°C
Storage temperature	-40°F to +149°F -40°C to +65°C
Operating humidity	5% to 95%, non-condensing
Storage humidity	10% to 95%, non-condensing

Others

Security	TPM 2.0 Secure Boot
Mean time between failures (MTBF)	60921.08 hours (6.95 years)

Standards, safety, and compliance

Environmental	EU Restriction of Hazardous Substances (RoHS II)
Electromagnetic compatibility (EMC)	AS/NZS CISPR 32 EN 55032:2012AC EN 55024 EN 61000 FCC Part 15, Subpart B, Class B
Safety	IEC 60950-1 IEC 62368-1 UL/CSA 62368-1

Software licensing

The 3848 offers a range of throughput-based license tiers, in addition to advanced services, edge services, and advanced security tiers. This flexibility allows the 3848 to be paired with the license that best aligns with a specific use case.

Ordering information

Part Number	Description
170-3848-900	3848, 8-CORE, 32GB MEM, 512GB STG, (10) 1G RJ45, (4) 10/1G SFP+, AC, NA

Accessories

CPW000010*	CABLE, POWER CORD, 120VAC, 3X18AWG, BLACK, 6.56 FT
CPW000011	CABLE, POWER CORD, AC, EU, 10A/250V, BLK, 1.8M
CPW000021	CABLE, POWER CORD, AC, CHINA, 10A/250V, BLK, 1.8M
CPW000023	CABLE, POWER CORD, AC, SWISS, 10A/250VAC, BLK, 1.8
CPW000024	CABLE, POWER CORD, AC, ITALY, 10A/250VAC, BLK, 1.8M
CPW000025	CABLE, POWER CORD, AC, ISRAEL, 10A/250V, BLK, R/A, 1.8M
CPW000026	CABLE, POWER CORD, AC, ARGENTINA, 10A/250V, BLK, 1.8M
CPW000027	CABLE, POWER CORD, AC, SA/UAE/IND, 10A/250V, BLK, 1.8M
CPW000028	CABLE, POWER CORD, AC, UK, 10A/250V, BLK, R/A, 1.8M, FUS
CPW000029	CABLE, POWER CORD, AC, AUS/NZ, 10A/250V, BLK, 1.8M
CPW000030	CABLE, POWER CORD, AC, JAPAN, 10A/250V, BLK, 1.8M
CPW000031	CABLE, POWER CORD, AC, KOREA, 10A/250V, BLK, R/A, 1.8M
CPW000066	CABLE, POWER CORD, AC, BRAZIL, 10A/250V, BLK, 1.8M
CBL000077	USB2 TO RS-232 CISCO PINOUT, RJ-45

Supported optics and transceivers

XCVR-B00CRJ	10/100/1000M, SFP, RJ45, 100M, EXT. TEMP, COPPER
XCVR-B00G85	1G, MM SFP, LC, 550 M, 850 NM, EXT. TEMP
XCVR-A10Y31	100M/1G, SM SFP OPTIC, LC, 10 KM, 1310 NM, EXT. TEMP
XCVR-S00Z85	10G, MM, SFP+, LC, 300 M, 850 NM, EXT. TEMP
XCVR-S10V31	10G, SM, SFP+, LC, 10 KM, 1310 NM, EXT. TEMP

* For U.S. customers, all required power cables will be automatically included. Customers outside the U.S. are required to order power cords separately.

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