

# Cisco Catalyst 6807-XL Modular Switch

## Product overview

Network traffic has grown exponentially over the last several years, and this trend is expected to continue into the foreseeable future. By 2016, there will be 19 billion networked devices, up from 10 billion in 2011. Business IP traffic is expected to reach 13.1 exabytes per month in 2016<sup>1</sup>. Networks must be capable of scaling well beyond the needs of today to deal with the traffic of tomorrow while at the same time providing investment protection.

With this in mind, Cisco is introducing the Cisco<sup>®</sup> Catalyst<sup>®</sup> 6807-XL Modular Switch for the next-generation campus. The Cisco Catalyst 6807-XL Modular Switch is built on the rich Cisco DNA of the Cisco Catalyst 6500 Series Switch and provides high levels of scalability and performance. The Cisco Catalyst 6807-XL Modular Switch provides unprecedented investment protection for migrations and upgrades from the Cisco Catalyst 6500-E Series Switch.

The Cisco Catalyst 6807-XL chassis (Figure 1) is built to be capable of delivering up to 11.4 terabits per second (Tbps) of system bandwidth capacity and up to 440 gigabits per second (Gbps) of per-slot bandwidth. In a system configured for VSS, this translates to a system capacity of up to 22.8 Tbps. With the Supervisor Engine 6T and latest generation of line cards, the 6807-XL chassis supports a maximum of 160 gigabits per second (Gbps) of per slot bandwidth. The Cisco Catalyst 6807-XL Modular Switch is optimized for high-density 10 Gigabit Ethernet and capable of supporting 40 Gigabit Ethernet.

The Cisco Catalyst 6807-XL chassis provides superior investment protection by supporting the Supervisor Engine 6T, Supervisor Engine 2T and associated line cards and service modules. Refer to Table 2 for the complete list of modules supported.

The Cisco Catalyst 6807-XL chassis offers integrated resiliency by providing 1+1 supervisor engine redundancy, redundant fans, and N+1 power supply redundancy, thereby limiting network downtime and making sure of workforce productivity, customer satisfaction, and profitability.

Figure 1. Cisco Catalyst 6807-XL chassis



<sup>1</sup> Cisco VNI forecast - [http://www.cisco.com/web/solutions/sp/vni/vni\\_forecast\\_highlights/index.html](http://www.cisco.com/web/solutions/sp/vni/vni_forecast_highlights/index.html).

## Features and benefits

The Cisco Catalyst 6807-XL Modular Switch is ideally suited for enterprise core and aggregation environments and offers industry-leading Gigabit Ethernet, 10 Gigabit Ethernet. The platform is also ready to support 40 Gigabit Ethernet.

The Cisco Catalyst 6807-XL Modular Switch is built on the Cisco Catalyst 6500 Cisco DNA and runs the same Cisco IOS® Software operating system as the Cisco Catalyst 6500 Series Switches. At FCS the switch will support all the features supported on the Cisco Catalyst 6500-E Series Switch.

At 10 rack unit, the Cisco Catalyst 6807-XL chassis is smaller than the Cisco Catalyst 6506-E chassis while providing an extra slot. This coupled with support for the Supervisor Engine 6T, Supervisor Engine 2T and its family of line cards means upgrading the campus backbone can be done with simplicity, speed, and full investment protection.

Table 1 lists the Cisco Catalyst 6807-XL chassis features and benefits.

Table 1. Cisco Catalyst 6807-XL chassis features and benefits

| Feature   | Benefit  |
|---|--|
| <b>Scalability</b>  |  |
| Capable of delivering up to 11.4 terabits per second of system bandwidth capacity and 440 Gbps of per-slot bandwidth for all slots.<br>A system configured for VSS is capable of delivering 22.8 terabits per second of system bandwidth. | Scales the system capacity for future needs.   |
| High interface capacity   | Scales to high-density Gigabit Ethernet, 10 Gigabit Ethernet. Capable of supporting 40 Gigabit Ethernet.   |
| <b>Increased resiliency</b>   |  |
| Standby fabric hot sync   | Decreases the supervisor engine switchover time of Supervisor Engine 2T based systems to between 50 and 200 ms, depending on the modules being used.                                 |
| Redundant control channel   | Increases resiliency to protect against backplane control channel failures.  |
| Redundant supervisor engine option  | Increases availability by supporting a redundant supervisor engine.  |
| Redundant power supply option   | Provides N+1 power supply redundancy for increased availability.   |
| Fan tray  | Supports hot-swappable fan tray.<br>The variable speed fans in the fan tray can handle individual fan failures (N+1 redundancy) and still provide sufficient cooling to the chassis. |
| <b>Environmental</b>  |  |
| Side-to-side airflow  | Consistent with existing Cisco Catalyst 6500 Series chassis to allow easy upgrades.  |
| AC power supply   | Supports up to 4 AC power supplies, which can be added incrementally as the system requirements grow.<br>Power supplies support both 110 volt and 220 volt inputs.                   |

## Product specifications

Table 2 lists the Cisco Catalyst 6807-XL product specifications.

Table 2. Product specifications

| Item                              | Specification  |
|-----------------------------------|--|
| Number of Slots                   | 7  |
| Number of Supervisor Engine Slots | 2  |
| Number of Module Slots            | 5  |
| Supervisor Compatibility          | C6800-SUP6T<br>C6800-SUP6T-XL<br>VS-S2T-10G<br>VS-S2T-10G-XL |

| Item   | Specification   |
|--|---|
| <b>Module Compatibility</b>                              | C6800-8P40G<br>C6800-8P40G-XL<br>C6800-32P10G<br>C6800-32P10G-XL<br>C6800-16P10G<br>C6800-16P10G-XL<br>C6800-8P10G<br>C6800-8P10G-XL<br>WS-X6904-40G-2T<br>WS-X6904-40G-2TXL<br>WS-X6908-10G-2T<br>WS-X6908-10G-2TXL<br>WS-X6816-10G-2T<br>WS-X6816-10G-2TXL<br>WS-X6816-10T-2T<br>WS-X6816-10T-2TXL<br>WS-X6848-SFP-2T<br>WS-X6848-SFP-2TXL<br>WS-X6824-SFP-2T<br>WS-X6824-SFP-2TXL<br>WS-X6848-TX-2T<br>WS-X6848-TX-2TXL<br>WS-X6704-10GE (with CFC or DFC4)<br>WS-X6748-GE-TX (with CFC or DFC4)<br>WS-X6748-SFP (with CFC or DFC4)<br>WS-X6724-SFP (with CFC or DFC4)<br>WS-X6716-10G-3C (with DFC4)<br>WS-X6716-10G-3CXL (with DFC4XL)<br>WS-X6716-10T-3C (with DFC4)<br>WS-X6716-10T-3CXL (with DFC4XL)<br>NAM3<br>ASA-SM<br>WiSM2<br>ACE30 |
| <b>Performance</b>                                       | The chassis is capable of up to 440 Gbps per slot<br>The performance of the individual modules is available in the module data sheets.  |
| <b>Power Supply Compatibility</b>                        | AC: 3000W (up to 4 power supplies)  |
| <b>Software compatibility (minimum software version)</b> |   |
| <b>Reliability and Availability</b>                      |   |
| <b>Calculated Mean Time between Failure (MTBF)</b>       |   |
| <b>Online Insertion and Removal (OIR)</b>                | OIR of the following components: supervisor engines, line card modules, power supplies, and fan tray  |
| <b>MIBs</b>  | Check the supervisor engine data sheet  |
| <b>Network Management</b>                                | Check the supervisor engine data sheet  |
| <b>Physical Dimensions (H x W x D)</b>                   |   |
| <b>Inches</b>  | 17.45 x 17.37 x 18.1  |
| <b>Centimeters</b>                                       | 44.3 x 44.1 x 46  |
| <b>Rack units (RU)</b>                                   | 10  |

| Item                         | Specification   |
|------------------------------|---|
| <b>Weight</b>                |   |
| Chassis Only (lbs)           | 62  |
| Fully Configured (lbs)       | 185   |
| Input Voltage                | 100 to 240 VAC<br>-48 to -60 VDC  |
| Safety                       | UL 60950 Second Edition<br>CAN/CSA-C22.2 No. 60950 Second Edition<br>EN 60950 Second Edition<br>IEC 60950 Second Edition<br>AS/NZS 60950                                      |
| EMC                          | FCC Part 15 (CFR 47) Class A<br>VCCI Class A<br>EN55022 Class A<br>CISPR 22 Class A<br>CE marking<br>AS/NZS 3548 Class A<br>ETS300 386<br>EN55024<br>EN61000-6-1<br>EN50082-1 |
| ETSI                         | ETS 300 019 Storage Class 1.1<br>ETS 300 019 Transportation Class 2.3<br>ETS 300 019 Stationary Use Class 3.1   |
| <b>Operating Environment</b> |   |
| Operating Temperature        | 32°F to 104°F (0 to 40°C)   |
| Storage Temperature          | -4 to 149°F (-20 to 65°C)   |
| Thermal Transition           | 0.5°C per minute (hot to cold)<br>0. 33°C per minute (cold to hot)  |
| Relative Humidity            | Ambient (noncondensing) operating: 5% to 90%<br>Ambient (noncondensing) nonoperating and storage: 5% to 95%   |
| Operating Altitude           | Certified for operation: 0 to 6500 ft (0 to 2000 m)<br>Designed and tested for operation: -200 to 10,000 ft (-60 to 3000 m)   |

## Ordering information

Table 3 lists the ordering information for the Cisco Catalyst 6807-XL chassis. To place an order, visit the [Cisco ordering homepage](#).

Table 3. Ordering information

| Product Name  | Part Number      |
|---|------------------|
| Cisco Catalyst 6807-XL Chassis                      | C6807-XL         |
| Cisco Catalyst 6807-XL Chassis Spare                | C6807-XL=        |
| Cisco Catalyst 6807-XL Fan Tray Spare               | C6807-XL-FAN=    |
| Cisco Catalyst 6807-XL 3000 W AC Power Supply       | C6800-XL-3KW-AC  |
| Cisco Catalyst 6807-XL 3000 W AC Power Supply Spare | C6800-XL-3KW-AC= |

## Cisco ONE Software

[Cisco ONE Software for Access Switching](#) is available for the Cisco Catalyst 6807-XL Modular Switch.

Cisco ONE Software is a new way for customers to purchase and use our infrastructure software. It offers a simplified consumption model, centered on common customer scenarios in the data center, WANs, and LANs.

Cisco ONE Software and services provide customers with four primary benefits:

- Software suites that address typical customer use scenarios at an attractive price
- Investment protection of their software purchase through software services-enabled license portability
- Access to ongoing innovation and new technology with Cisco Software Support Service (SWSS)
- Flexible licensing models to smoothly distribute customer's software spend over time

For ordering information for Cisco ONE Software for the Cisco Catalyst 6807-XL Modular Switch, go to

<http://www.cisco.com/c/en/us/products/software/one-access/switching-part-numbers.html>.

## Cisco Capital

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## For more information

For more information about the Cisco Catalyst 6807-XL Modular Switch, visit:

<http://www.cisco.com/en/US/products/hw/switches/index.html>.

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