Cisco Catalyst 6807-XL

Innovation with Investment Protection for Tomorrow's Campus Backbone

White Paper

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Introduction

The growth in network traffic over the last several years has been exponential, 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. Forecasts predict business IP traffic will reach 13.1 Exabytes per month in 2016. 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.

Figure 1.   Cisco Catalyst 6807-XL
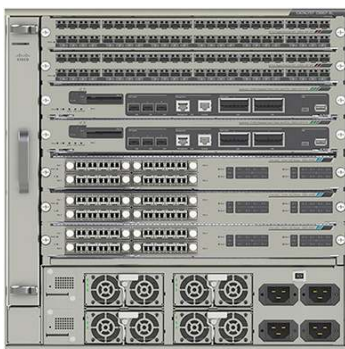
Introducing the New Cisco Catalyst 6807-XL Chassis

Cisco is pleased to announce the latest high-density, low-footprint modular switching platform, the new Cisco Catalyst 6807-XL (Figure 1), designed for flexible deployment in enterprise campus Core and Distribution environments. This new 7-slot modular chassis can support up to 880 Gbps per slot, for a maximum system capacity of up to 11.4 Tbps (or up to 22.8 Tbps in the Cisco Catalyst 6500 Series Virtual Switching System [VSS]).

This white paper provides an architectural overview of the new Cisco Catalyst 6807-XL chassis, to include overall system design, power, and cooling, and its support for both current and future modules. To the extent possible, at the time of this writing, this document provides all of the technical details necessary to fully understand this new chassis.

The new Cisco Catalyst 6807-XL chassis is the "modular" aspect of a new Cisco Catalyst 6800 Series family of multilayer switching products, which combine significant technological innovation with unparalleled investment protection, to support tomorrow's campus backbone.

What Is Innovation with Investment Protection?

Many technology companies develop "innovative" new products that can boost the performance or capabilities of your network, but these usually require an entirely new set of hardware and software to use them. This requirement undermines all of your previous investments, and forces you to reinvest more money and relearn new products.

Why? It is easier and cheaper for other companies to simply create a completely new product. This approach eliminates the hardware or software development complexity of backward compatibility, but severely limits or prevents the use of earlier generations. That is, it is easier and cheaper for **them**, not for **you**.

Cisco Catalyst switches have been built (from the beginning) to maximize backward compatibility, along with an architectural foundation for next-generation hardware features and scalability. Since its introduction in 1999, the

venerable Cisco Catalyst 6000 Series switches have supported at least two previous generations, working alongside the current and next-generation products.

Does the Cisco Catalyst 6807-XL Provide Innovation with Investment Protection?

Absolutely, and this paper explains.

In summary, the Cisco Catalyst 6807-XL supports the following:

- Cisco Catalyst 6500 Series Supervisor Engine 2T (Standard and XL)
- Current Fabric Modules (Cisco Catalyst 6700, Catalyst 6800, and Catalyst 6900 Series)
- Current Service Modules (Cisco Catalyst Network Analysis Module 3 [NAM-3], Wireless Services Module 2 [WiSM-2], and Adaptive Security Appliance Services Module [ASA-SM])
- Future Supervisor Engines
- Future Fabric Modules
- Future Service Modules
- Current (e.g. 15.1SY) Cisco IOS® Software release
- Future (e.g. 16.0SY) Cisco IOS Software releases

The Cisco Catalyst 6000 Series of multilayer switches has been providing innovation with investment protection for more than 13 years. The new Cisco Catalyst 6807-XL chassis is the latest in a long history of switching innovations that power the networks of more than 90 percent of the modern Internet.

Figure 2 graphically shows the evolution of the Cisco 6000 Series Switches.

Figure 2. Evolution of Cisco Catalyst 6000 Series
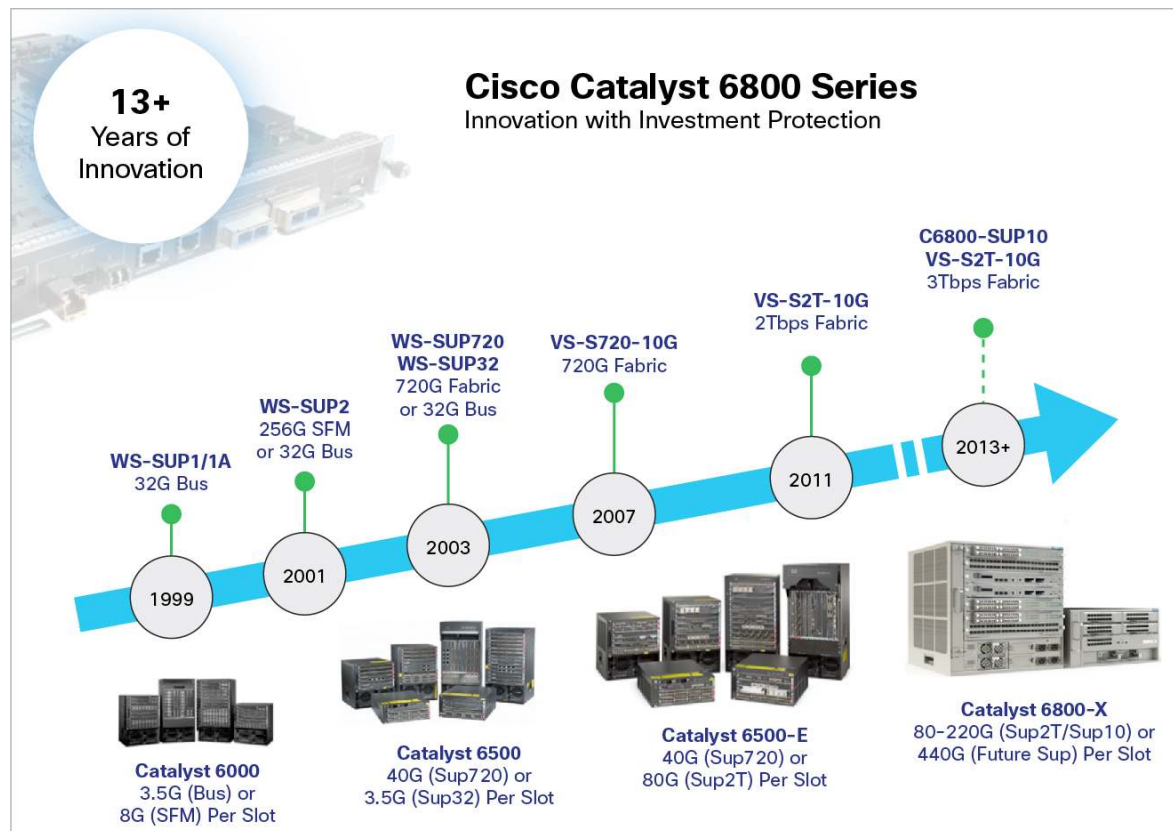
Chassis Overview

Chassis Highlights

This section presents the highlights of the new Cisco Catalyst 6807-XL chassis. Additional details are in the following sections.

The Cisco Catalyst 6807-XL is a **7-slot modular chassis** based on the Cisco Catalyst 6500.

It includes the following highlights:

- **Backward-compatible backplane connectors:** Supporting at least the previous two generations of modules
- **High-performance backplane traces:** Supporting new clock frequencies that enable exponentially greater bandwidth for future modules
- **Double the number of available fabric channels** (to each supervisor engine): More than doubling the per-slot bandwidth
- **Up to 4 "platinum-efficiency" 3,000-watt AC power supplies:** Supporting either N+1 or 1:1 power redundancy, or up to 12,000 watts combined
- **Enhanced fan tray with 9 "high-efficiency" 6,000-revolutions per minute (RPM) fans:** Providing ~850 cubic feet per minute (CFM) of airflow, capable of cooling a fully loaded system with both current and future modules

- **Smaller footprint 10-rack-unit (10RU) chassis form factor:** Providing an extra card slot and **double** the bandwidth, using less space than the Cisco Catalyst 6506-E (11RU)

Other highlights follow:

- Supports both traditional DBUS connectors and 48 fabric channels
  - 8 per card slot ((40) + 4 Sup-Sup (8)) x 15-GHz serializer/deserializer (SerDes)
- Supports both traditional bus Ethernet Out Band Channel (EOBC) and new switched EOBC
  - If older cards are present = Traditional EOBC bus
- Supports two redundant 3.3V control logic modules (front-serviceable)
  - Located to left of power supplies
- Supports two redundant 62.5-MHz system-clock modules (rear-serviceable)
  - Located behind back plate
- Supports three redundant voltage termination enhanced (VTT-E) modules (rear-serviceable)
  - Located behind back plate

Chassis Design

This section briefly covers the high-level system design of the new Cisco Catalyst 6807-XL chassis. The following sections give additional details.

The chassis dimensions are (H x W x D): **17.5 x 16.32 x 18.10 inches** (44.45 x 41.45 x 45.97 cm).

There are **5 module** (also known as line card) slots and **2 supervisor-engine** slots.

Many years of deployment on the Cisco Catalyst 6500 have shown that most customers (even those with 9 or 13 slots) actually populate only 5 or fewer modules, with an equal amount using one (non-redundant) or two (redundant) supervisor engines. At the same time, customers also desire more physical space in their lab racks or wiring closets.

Thus the "magic number" became 7 slots. This small-form-factor approach, combined with increased per-slot bandwidth (and future port density), allows for **more scale in less space**.

The chassis has **4 power-supply-unit (PSU)** slots and **4 AC-only** power inputs.

Many years of deployment on the Cisco Catalyst 6500 have shown that most customers (more than 90 percent) use AC power. At the same time, power requirements have increased and many customers desire more than two power supplies for various redundancy (for example, 1:1 or N + 1) configurations, as well as the ability to scale combined power up to 12,000W.

Thus a decision was made to support four supplies and to simplify backplane power connectors to focus on AC power input. This approach increases both the available power and redundancy while simultaneously reducing the costs of the equipment.

The chassis has a front-serviceable **fan tray** with **nine variable-speed fans**.

As the power requirements for new modules have increased, so have the cooling requirements. The enhanced fan tray provides enough cooling capacity to support a fully loaded chassis with all of the current modules and future modules (which will require even more cooling).

The fan tray supports hardware failure of up to three individual fans, and the remaining (six) fans will automatically increase rpm to compensate and maintain sufficient cooling. The fan tray also supports hardware online insertion and removal (OIR) for up to 120 seconds (more time is possible, but depends on ambient temperature) without service interruption.

Figure 3 shows a mechanical view of the Cisco Catalyst 6807-XL.

Figure 3. Mechanical View of Cisco Catalyst 6807-XL
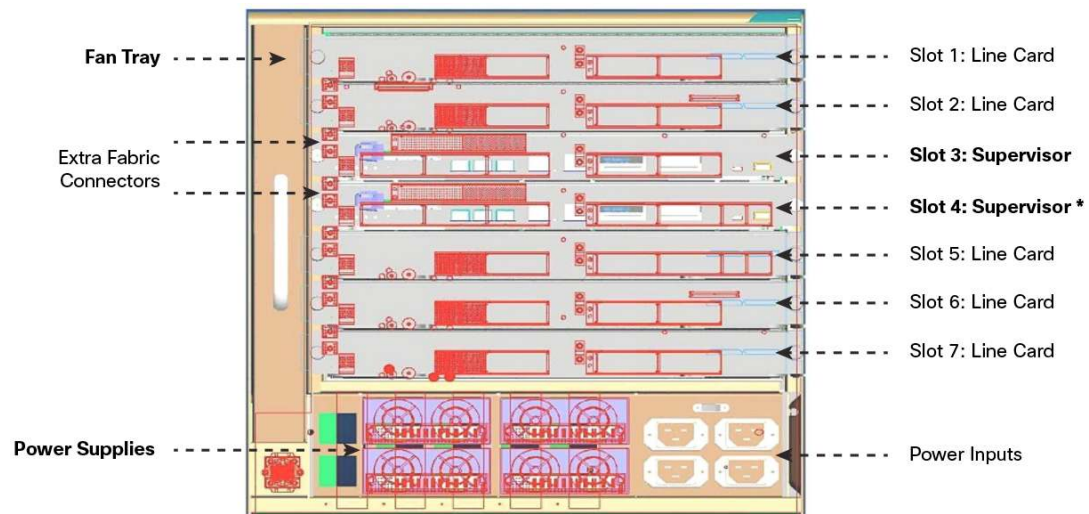
Chassis Backplane

Three basic factors define available "bandwidth", on a per-slot or per-system (total) basis, in a modular hardware switching chassis:

- Number of channels
- Clock frequency
- Line encoding

Number of Channels

Traditional (external) computer networking has a limited number of physical approaches to connecting independent network nodes together. The overall capacity and throughput (bandwidth) between these devices is dictated by the characteristics of the medium and the software used to manage it.

In many ways, you can simply think of each chassis module as one of these independent nodes, attached to one another through an internal network (in the chassis). This way of thinking also helps provide a historical perspective of how various chassis backplanes (and the attached modules) have evolved.

In external networking, one basic approach is to provide multiple data paths (also known as channels) to a single node. With this approach, a modular chassis can increase its so-called "per-slot" bandwidth capacity by multiplying the number of attached channels.

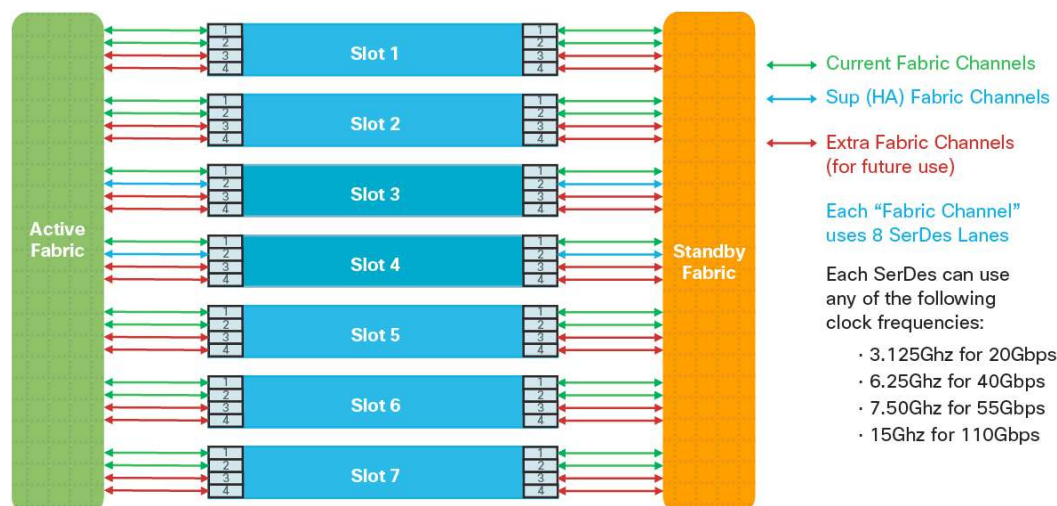The new Cisco Catalyst 6807-XL provides up to **eight channels to each module slot**.

Each module slot has **four channels** connected **to each supervisor-engine slot** (x2).

Note: Each "channel" is further comprised of eight parallel "SerDes" lanes, which are aggregated together to form a single logical fabric channel.

Note: The exact details of SerDes architecture and functions are outside the scope of this document. Please refer to the following link for additional information: http://en.wikipedia.org/wiki/SerDes.

Figure 4 shows the channel allocation of the Cisco Catalyst 6807-XL.

Figure 4.   Channel Allocation of Cisco Catalyst 6807-XL

For comparison, the Cisco Catalyst 6500-E Series chassis provides up to four channels to each slot, where each module slot has two channels connected to each supervisor-engine slot.

Thus, the new Cisco Catalyst 6807-XL provides **double** the number of available channels.

Clock Frequency

All computer-based "data" is represented by binary "bits", often referred to as "1's" and "0's", which are simple representations of either the **presence of** (1) or **absence of** (0) an electrical or optical signal. The amount of time between the arrival of each individual "bit" is called its "frequency", measured in Hertz (Hz), and controlled by a central "clock".

What we commonly refer to as the "speed" of a piece of hardware is actually a reference to its clock frequency. The faster the frequency, the faster individual bits will arrive. However, these bits must be interpreted correctly in order for the higher functions to make sense of them. This requirement is the purpose of line encoding, discussed in the next section.

Note: The exact details of calculating and measuring clock frequency are outside the scope of this document. Please refer to the following link for additional information: http://en.wikipedia.org/wiki/Clock_frequency.

Note: Several lesser factors also influence the maximum clock frequency, such as the characteristics and quality (for example, signal integrity) of the physical medium, design, and operation of the components (for example, SerDes), the accuracy of the central clock, and others.

Note: These additional factors are also beyond the scope of this document, but it is important to point out that a chassis must also support them in order to support higher frequencies.

Following is a list of the supported clock frequencies:

- 3.13 GHz: For up to 20 Gbps (per channel)
- 6.25 GHz: For up to 40 Gbps (per channel)
- 7.50 GHz: For up to 55 Gbps (per channel)
- 15.0 GHz: For up to 110 Gbps (per channel)

Along with line encoding and number of channels, these frequencies explain how the new Cisco Catalyst 6807-XL can achieve up to 880 Gbps (that is 8 SerDes at 15 GHz at 64/66b = 110 Gbps per channel x 8 channels).

Note: The **actual usage** of the **available bandwidth** also depends on the current supervisor engine(s) and module(s) and the associated application-specific integrated circuits (ASICs) and field programmable gate arrays (FPGAs) which actually process transmitting and receiving (TX and RX, respectively) of data. This point is discussed more in the "Module Support" section.

Line Encoding

Along with clock frequency (which dictates the arrival rate of data "bits"), the transmitting and receiving equipment must both agree about how to interpret "good" data from "bad" (corrupt) data.

Furthermore, if data transmissions (bits) are simply the presence or absence of signal (1 or 0), how can the receiving equipment understand the difference between a "good" transmission of bits, or if it is actually experiencing interference, or if the transmission has completely ceased?

That dilemma explains the basic purpose of line encoding. It is actually much more complicated, including how to define what a "bit" is (based on the signal wavelength and frequency), but that is its essential function.

The transmitting equipment sends a fixed number of bits together in a sequence (encoding), and then the receiving equipment uses some portion of the total bits to determine if the transmission was successful (or not).

Note: The details of various line-encoding schemes are outside the scope of this document. Please refer to the following link for additional information: http://en.wikipedia.org/wiki/Line_code.

Following is a list of the supported line encodings:

- 08/10b: For up to 40 Gbps (per channel)
- 24/26b: For up to 55 Gbps (per channel)
- 64/66b: For up to 110 Gbps (per channel)

Along with clock frequency and number of channels, these line encodings explain how the Cisco Catalyst 6807-XL can achieve up to 880 Gbps (that is 8 SerDes at 15 GHz at 64/66b = 110 Gbps per channel x 8 channels).

Note: The **actual usage** of the **available bandwidth** also depends on the current supervisor engine(s) and module(s) and the associated ASICs and FPGAs, which actually process (TX and RX) of data. This point is discussed more in the "Module Support" section.

Chassis Power

The Cisco Catalyst 6807-XL supports up to **four 3,000W AC** PSUs, for a total system capacity up to 12,000W.

The system supports between one and four PSUs operating in either combined or redundant modes.

Power Supply Units

The maximum power output per PSU is 3,000W at 220V or 1,400W at 110V (Figure 5).

Each PSU has been rated as "platinum efficient", for >90-percent power efficiency at 100-percent load.

Each PSU has a power hold-up time of ~20 milliseconds (msec or ms) at 100-percent load and fully supports OIR.

Each PSU supports dual and redundant "front-to-back" variable-speed cooling fans.

Figure 5 shows a close-up of the Cisco Catalyst 6807-XL 3,000W PSU.

Figure 5.   Cisco Catalyst 6807-XL 3,000W PSU Close-Up
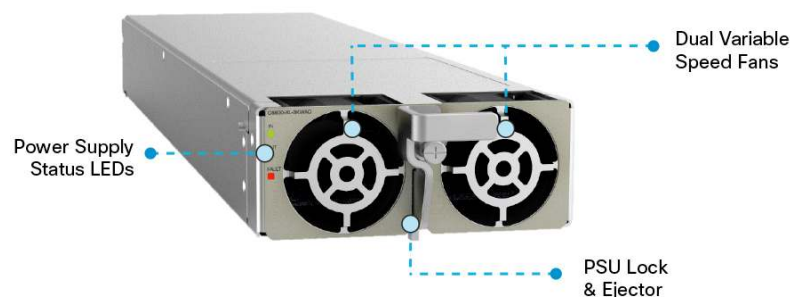
Each PSU has a screw-based lock and manual ejector lever for simple and secure OIR.

Each PSU supports multiple LEDs to determine component and power input/output status.

Table 1 describes the PSU LEDs.

Table 1.   PSU LEDs

LED	Color	Status	Description
IN	🟢	Solid	Input OK
IN	🟢	Blinking	Under-Current
OUT	🟢	Solid	Output OK
OUT	🟢	Blinking	Over-Current
Fault	🔴	Solid	Malfunction

PSU fault conditions follow:

- 5V out of range
- Output stage OT
- Fan malfunction (fault)
- OR-ing fault (Output < Bus voltage)
- OC shutdown
- OT shutdown
- OV shutdown
- Input stage OT
- Fault-induced shutdown occurred
- Thermal sensor fault
- Vout out of range
- Boost Vbulk fault

Power Inputs

The Cisco Catalyst 6807-XL supports fully OIR-capable small-form-factor PSUs, so an external power bus and separate power inputs (sockets) are required to allow you to easily insert or remove PSUs without the need to connect or disconnect the power cord.

Four separate PSUs are located on the left (facing) side of the chassis, so four separate power inputs are located on the right (facing) side of the chassis, along with a single (system) On/Off switch.

Each PSU and corresponding power input is numbered from left to right and bottom to top.

Figure 6 shows a visual representation.

Figure 6.   Cisco Catalyst 6807-XL Power Input and Numbering
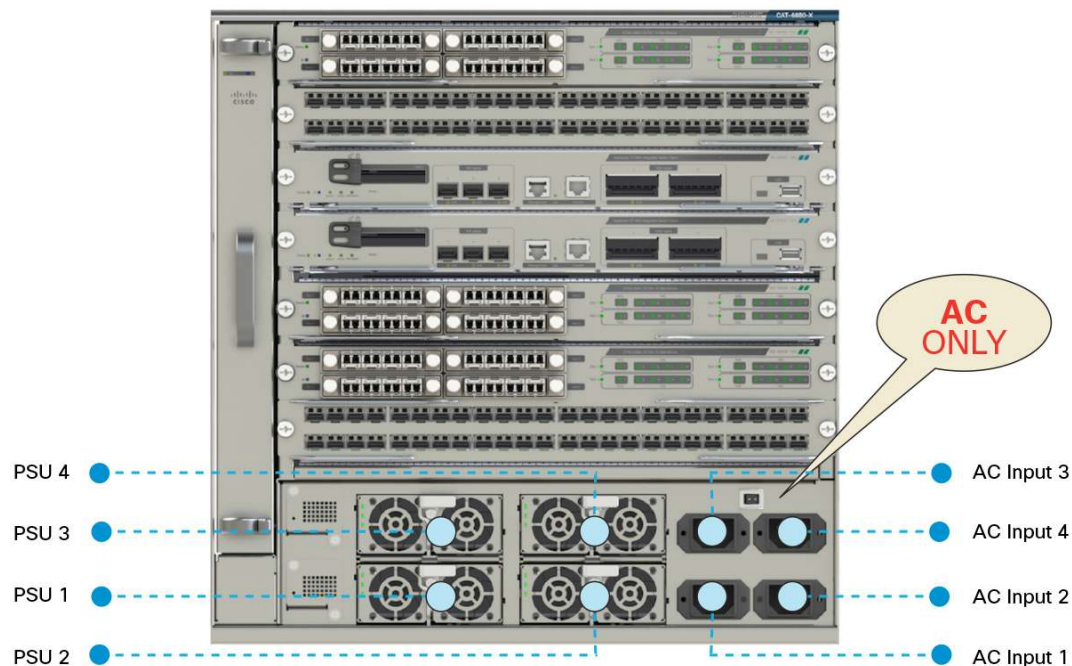
Note: The Cisco Catalyst 6807-XL chassis supports **only** AC power input (up to 16 amps). AC power is a standard power-distribution method, and the most common method in the world with >90-percent adoption (http://en.wikipedia.org/wiki/Ac_power).

Chassis Cooling

The Cisco Catalyst 6807-XL supports a **single front-serviceable fan tray**, capable of providing up to 850 CFM in order to properly cool seven 800W modules.

This fan-tray assembly is enhanced with nine redundant variable-speed 6,000-RPM fans.

Enhanced Fan Tray

The maximum cooling capacity of the fan tray is ~850 CFM (~120 CFM per slot).

Each fan has been rated as high-efficiency, for >80-percent power efficiency at 100-percent load.

Each fan has an acoustic noise level of 67 dB (per ISO-7779) when operating at 50 to 149℉ (-10 to 65° C).

Each fan supports four variable-speed operating modes between 3,000 and 6,000 RPM.

The fan tray supports up to three fan failures (the remaining fans will increase RPM/CFM).

The fan tray supports OIR for a minimum of ~120 seconds (depends on ambient temperature). Individual fans cannot be replaced (you must replace the fan tray).

Figure 7 shows a close-up of the fan tray.

Figure 7.   Cisco Catalyst 6807-XL Fan-Tray Close-Up
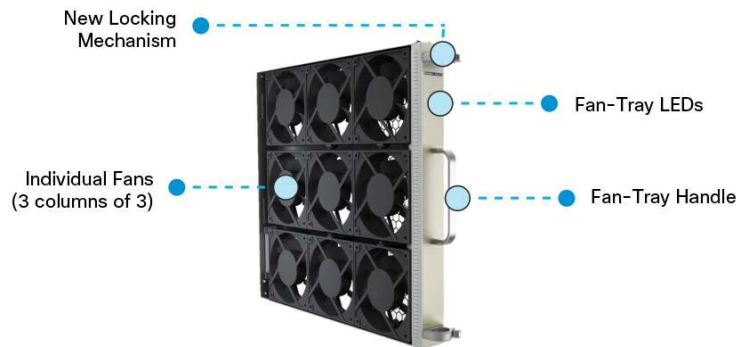
The fan tray has a built-in Multipoint Control-Unit (MCU) controller to receive (for example, fan speed) and send (for example, the temperature status) messages to the supervisor engine, through the Inter-Integrated Circuit (I2C) bus. The MCU monitors the thermistor mounted on the fan tray and sets fan speeds based on temperature ranges set by the MCU.

The fan tray has a new thumb-lock mechanism and fan-tray handle for simple and secure OIR.

The fan tray supports multiple LEDs to determine fan-tray status, including a new Blue ID LED (Table 2).

Table 2.   Fan Tray LEDs

LED	Color	Status	Description
FAN	🟢	Solid	Fan-Tray OK
FAN	🔴	Solid	Fan-Tray Fault
ID	🔵	Solid	Identifies Fan-Tray

Fan tray fault conditions follow:

- One or more fans stops spinning
- 42V hot-swap failures
- 3.3V goes away (from supervisor card)
- +5V supply fails
- Pulse Width Modulation (PWM) signal 0-percent duty cycle
- Thermistor failure
- System temperature out of range

Chassis Airflow

The Cisco Catalyst 6807-XL fan tray supports **side-to-side (right-to-left) airflow** (Figure 8). This design was chosen because it is optimal for campus Core, Main Distribution Framework (MDF) and Intermediate Distribution Framework (IDF) deployments. Simple airflow baffles or specialized data center racks can be used to redirect the airflow exhaust to the rear, as necessary.

To maintain proper airflow circulation, you should maintain a minimum separation of 6 inches (15 cm) between a wall and the chassis air intake or air exhaust. You should also allow for a minimum separation of 12 inches (30.5 cm) between the hot air exhaust on one chassis and the air intake of another chassis.

Figure 8.   Cisco Catalyst 6807-XL Fan-Tray Airflow
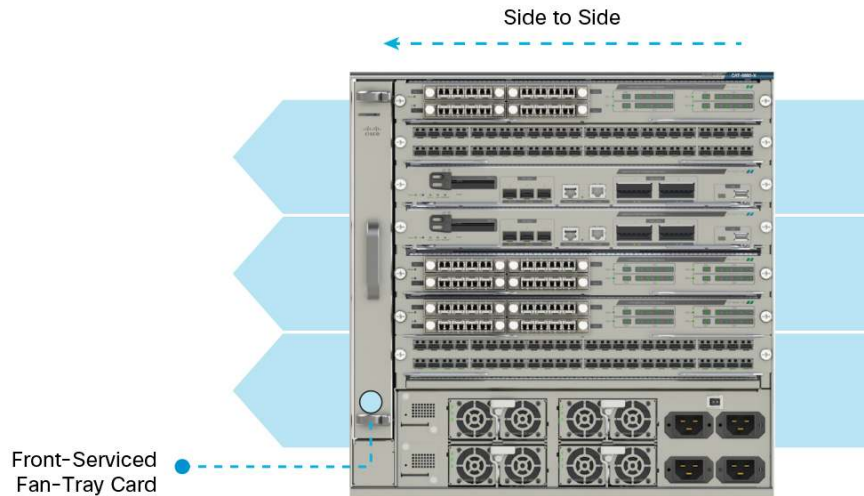
Module Support

A key and repeating theme of this paper has been "innovation with investment protection". With these important concepts in mind, the following sections outline which modules are supported in the new Cisco Catalyst 6807-XL chassis.

Remember that a basic philosophy of any modular hardware platform is to support multiple different module types and generations. Thus, this section will address legacy, current, and future module support, and their associated operation within a Cisco Catalyst 6807-XL, based on the information available at the time it was written.

Supervisor-Engine Modules

The primary objective at the time of first release is to support the existing Supervisor Engine 2T models (standard and XL), and to provide a foundation for future supervisor-engine generations.

You can simply remove your current Supervisor Engine 2T module from a Cisco Catalyst 6500-E Series chassis and then insert it into a new Cisco Catalyst 6807-XL chassis. The same Supervisor Engine 2T will provide (at least) the same level of performance, and can even support new levels of performance.

Table 3 outlines support for the supervisor-engine modules.

Table 3.   Supported Supervisor-Engine Modules

PID	Description	Support
Older Supervisor Engines		
WS-SUP720	Supervisor Engine 720 (PFC3B and 3B-XL)	No
VS-S720-10G	Supervisor Engine 720 (PFC3C and 3C-XL)	No
Current Supervisor Engines		
VS-S2T-10G	Supervisor Engine 2T (PFC4)	**Yes**
VS-S2T-10G-XL	Supervisor Engine 2T (PFC4-XL)	**Yes**

Note: You will recall that the new Cisco Catalyst 6807-XL chassis provides eight fabric channels per slot (four to each supervisor engine), whereas the Cisco Catalyst 6500-E provides only four channels (two to each supervisor engine).

Supervisor Engine 2T Support

An existing Supervisor Engine 2T module may or may not provide any increased performance.

Without any change to the hardware itself (deployment does require new software and firmware), your same Supervisor Engine 2T module can now take advantage of the four available (per-slot) channels, as well as support for new clock frequencies (up to 7.5 GHz) and line encoding (for example, 24/26b) schemes.
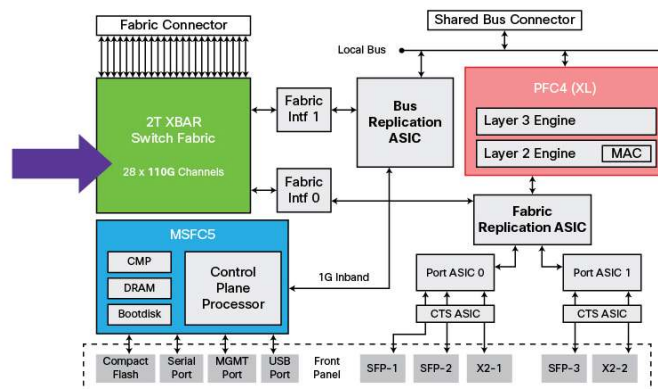
Therefore, **each Supervisor Engine 2T** module in a **Cisco Catalyst 6807-XL** can support up to **220 Gbps per slot**.

Figure 9 shows the Cisco Catalyst 6807-XL with Supervisor Engine 2T.

Figure 9. Cisco Catalyst 6807-XL with Supervisor Engine 2T

However, individual LAN module performance depends on the ASICs present in each generation.

In other words, current LAN modules support the **same performance** as in a Cisco Catalyst 6500-E chassis. Furthermore, the Supervisor Engine 2T performance benefits noted previously **apply only to next-generation LAN modules**.

LAN Modules

The primary objective at the time of first release is to support the existing LAN modules (standard and XL).

You can simply remove your current LAN modules from a Cisco Catalyst 6500-E chassis (with Supervisor Engine 2T), and then insert them into a new Cisco Catalyst 6807-XL chassis. The same LAN modules will provide (at least) the same level of performance, and they must interoperate with any new LAN modules.

Table 4 shows support for LAN modules.

Table 4. LAN Module Support

PID	Description	Support
Older Modules		
WS-X6748-GE-TX	40G Fabric 48-Port 1G RJ45 (CFC or DFC4/XL)	**Yes**
WS-X6748-SFP	40G Fabric 48-Port 1G SFP (CFC or DFC4/XL)	**Yes**

PID	Description	Support
WS-X6724-SFP	40G Fabric 24-Port 1G SFP (CFC or DFC4/XL)	Yes
WS-X6748-GE-TX	40G Fabric 48-Port 1G RJ45 (CFC or DFC4/XL)	Yes
WS-X6704-10G	40G Fabric 4-Port 10G X1 (CFC or DFC4/XL)	Yes
WS-X6716-10G	40G Fabric 16-Port 10G X2 (DFC4/XL)	Yes
WS-X6716-10T	40G Fabric 16-Port 10G RJ45 (DFC4/XL)	Yes
Current Modules		
WS-X6848-GE-TX	40G Fabric 48-Port 1G RJ45 (DFC4/XL)	Yes
WS-X6848-SFP	40G Fabric 48-Port 1G SFP (DFC4/XL)	Yes
WS-X6824-SFP	40G Fabric 24-Port 1G SFP (DFC4/XL)	Yes
WS-X6848-GE-TX	40G Fabric 48-Port 1G RJ45 (DFC4/XL)	Yes
WS-X6816-10G	40G Fabric 16-Port 10G X2 (DFC4/XL)	Yes
WS-X6816-10T	40G Fabric 16-Port 10G RJ45 (DFC4/XL)	Yes
WS-X6908-10G	80G Fabric 8-Port 10G X2 (DFC4/XL)	Yes
WS-X6904-40G	80G Fabric 4-Port 40G CFP -OR- 16-Port 10G SFP (DFC4/XL)	Yes

Note: The list of supported LAN modules is based on current Supervisor Engine 2T (with Cisco Catalyst 6500-E) support. Thus any modules not already supported by this supervisor will not be supported in the new Cisco Catalyst 6807-XL chassis.
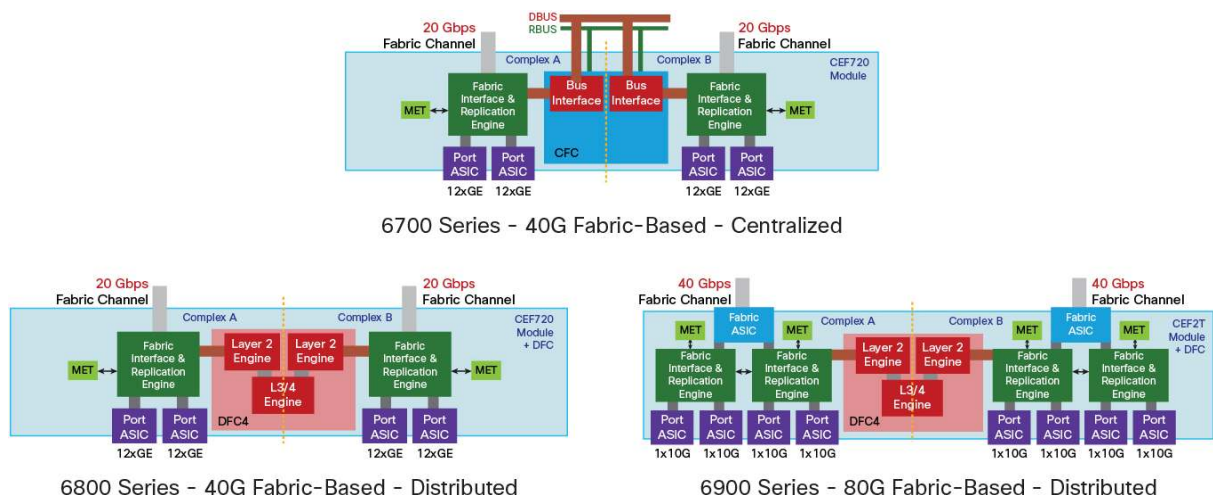
Existing Modules

There are three basic categories of existing (supported) LAN modules:

- Legacy 40-Gbps fabric-based Cisco Catalyst 6700 Series, with CFC (or optional DFC4), and current Cisco Catalyst 6800 Series, with built-in DFC4.
- Current 80-Gbps fabric-based Cisco Catalyst 6900 Series, with built-in DFC4.

Figure 10 shows a brief (architectural) view of these LAN modules.

Figure 10.   Architectural View of Existing LAN Modules

6700 Series – 40G Fabric-Based – Centralized

6800 Series – 40G Fabric-Based – Distributed   6900 Series – 80G Fabric-Based – Distributed

Note: The architectural details of these various LAN modules is outside the scope of this document. Please refer to their respective data sheets and/or other documents for additional information.

Although the new Cisco Catalyst 6807-XL chassis will support each of the LAN modules noted previously, it is important to note that the associated ASICs and FPGAs of each LAN module will not change. In other words, each LAN module will continue to operate in the same way it does in an existing Cisco Catalyst 6500-E chassis, and there is **no increased performance**.

Figure 11 shows the Cisco Catalyst 6807-XL with the existing LAN modules.

Figure 11. Cisco Catalyst 6807-XL with Existing LAN modules

6900 & 6800/6700 Series:
· Still using the same local ASICs
· Still only 2 channels (per Supervisor)
· **NO Increased per Channel bandwidth**
    · Same Clock Frequencies (3.12 to 6.25GHz)
    · Same Line Encodings (8/10b)
· **Same performance as with 6500-E**
· No performance issue with mixed speeds
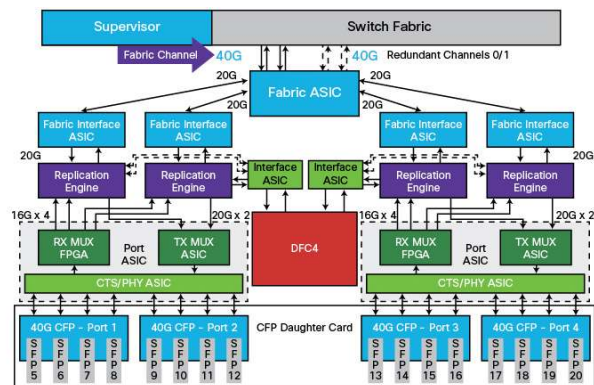
Service Modules

The primary objective at the time of first release is to support the existing service modules, and also provide a foundation for future service-module generations.

You can simply remove your current service modules from a Cisco Catalyst 6500-E chassis (with Supervisor Engine 2T), and then insert them into a new Cisco Catalyst 6807-XL chassis. The same service modules will provide (at least) the same level of performance, and they must interoperate with any new service modules.

Table 5 shows support for service modules.

Table 5.   Service Module Support

PID	Description	Support
Older Modules		
WS-SVC-NAM-2	8G Fabric Network Analysis Module (v2)	No
WS-SVC-FWM-1	8G Fabric Fire-Wall Services Modules (v1)	No
WS-SVC-WISM-1	8G Fabric Wireless Integration Services Module (v1)	No
Current Modules		
WS-SVC-NAM-3	20G Fabric Network Analysis Module (v3)	Yes
WS-SVC-ASA-SM	20G Fabric Adaptive Security Application (Firewall) Services Modules (v2)	Yes
WS-SVC-WISM-2	20G Fabric Wireless Integration Services Module (v2)	Yes

Note: The list of supported service modules is based on current Supervisor Engine 2T (with Cisco Catalyst 6500-E) support. Thus any modules not already supported by Supervisor Engine 2T will not be supported in the new Cisco Catalyst 6807-XL chassis.

Conclusion

Cisco is extending the overall scale, performance, and capabilities of the venerable Cisco Catalyst 6000 product family with the introduction of the new Cisco Catalyst 6800 Series. The new Cisco Catalyst 6807-XL chassis provides extremely high levels of system scalability and performance, coupled with unprecedented investment protection for migrations and upgrades from the current Cisco Catalyst 6500-E chassis.

The new Cisco Catalyst 6807-XL chassis can deliver up to 11.4 Tbps of total system capacity, with up to 880 Gbps of per-slot bandwidth. In a VSS configuration, this level of support translates to a system capacity of up to 22.8 Tbps.

The new Cisco Catalyst 6807-XL chassis is optimized for high-density 10, 40, and 100 Gigabit Ethernet, also providing superior customer investment protection by supporting the Cisco Catalyst 6500 Supervisor Engine 2T and associated LAN and service modules.

For Your Information

For more information, please visit:

- Cisco Catalyst 6500 Supervisor 2T Architecture White Paper
- Cisco Catalyst 6500 WS-X6904-40G Architecture White Paper
- Cisco Catalyst 6500 Supervisor 2T Data Sheet
- Cisco Catalyst 6500 WS-X6904-40G Data Sheet
- Cisco Catalyst 6500 1G and 10G Modules Data Sheets

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