



# Expand Unified Access with New Cisco Catalyst 3850 SFP Fiber Switches

## Overview

To help improve your IT efficiency and enhance your user productivity, Cisco is introducing the new 1G Small Form-factor Pluggable (SFP) fiber models in the flagship Cisco® Catalyst® 3850 Series Switch family. These new models with 1G fiber SFP ports expand the [Cisco Unified Access](#) solution in both stacked and standalone 1G aggregation, offering long-distance connectivity and enhanced security. These new Cisco Catalyst 3850 1G SFP fiber switches are based on the innovative Cisco Unified Access Data Plane (UADP) application-specific integrated circuit (ASIC) and provide additional campus and branch LAN switching and converged access mobility deployment options for ease of management in a small footprint. Fully stackable with the existing feature-rich and wired-wireless Cisco Catalyst 3850 access switches, the new Cisco Catalyst 3850 1G SFP fiber switches boost end-user productivity with consistent wired and wireless user experience, enable IT simplicity with network programmability and enhanced security, and reduce TCO with lower OpEx and energy consumption.

## Highlights for New Cisco Catalyst 3850 SFP Fiber Switches

- Built on Cisco UADP ASIC, support full programmability for Cisco Enterprise Network Architecture
- Support for a wide range of pluggable transceiver modules for longer physical distance and enhanced physical security
- Integrated wireless LAN controller functionality in Converged Access mode
- Cisco StackWise-480 and Cisco StackPower® technologies for resiliency
- Native Flexible NetFlow (FnF) on all ports for extensive application visibility
- Native Cisco TrustSec® support for user segmentation and end user/device/location security
- Support for Cisco Unified Access with ISE and Cisco Prime™
- SDN OpenFlow and OnePK™ ready with support for Cisco Application Policy Infrastructure Controller Enterprise Module (APIC-EM) in a future software release

## Primary Features

- 12 or 24 1G fiber data ports at line rate on every port
- Two optional uplink modules with 4 x Gigabit Ethernet or 2 x 10 Gigabit Ethernet ports

- Cisco StackWise-480 technology to provide scalability and resiliency with 480 Gbps of stack throughput and full stackability with other Cisco Catalyst 3850 fixed GE access switches
- Cisco StackPower technology to provide power stacking among stack members for power redundancy
- Dual redundant power supplies (AC and DC) and three modular fans, providing higher redundancy
- Software support for IPv4 and IPv6 routing, multicast routing, modular QoS, Flexible NetFlow and advanced security features
- Single, consistent Cisco IOS® XE Software image with IP Base and IP Services, providing an easy upgrade path for software features
- Enhanced limited lifetime warranty (E-LLW) with next business day advance hardware replacement and 90-day access to Cisco Technical Assistance Center
- Integrated wireless LAN controller capability with up to 20 Gbps of wireless capacity per switch or stack and up to 50 access points and 2000 wireless clients on each switch or stack

## Switch Configurations

The new Cisco Catalyst 3850 SFP switches are available with IP Base and IP Services feature sets. All switches ship with a default AC power supply. A DC power supply can be purchased as an option or spare. Access point licenses are optional and can be ordered with the base switches. Figure 1 shows the new Cisco Catalyst 3850 switches with fiber data ports. Table 1 compares different switch models.

Figure 1. Cisco Catalyst 3850 Switches with Fiber Data Ports





**Table 1.** Model Comparison for Cisco Catalyst 3850 Switch with Fiber Data Ports

Model	Total GE Fiber Ports	Default AC Power	Optional Network Module	Cisco StackPower
WS-C3850-12S-S	12	350 WAC	4 x 1GE 2 x 10GE	Yes (supports higher rated power supplies, including 715WAC, 1100WAC, 440WDC)
WS-C3850-12S-E	12			
WS-C3850-24S-S	24	350 WAC		
WS-C3850-24S-E	24			

### Support for a Wide Range of Optics

The new Cisco Catalyst 3850 SFP fiber switches support a wide range of pluggable transceiver modules, including 10/100/1000, 100BASE-FX and 1000BASE-X SFP ports and 10GBASE-X SFP+ uplinks. Fiber connections provide enhanced physical security because they are less prone to physical tapping, making them suitable for FTTx deployments, including fiber to the desktop (FTTD).

### StackWise-480 Technology

The new Cisco Catalyst 3850 switches with fiber data ports provide maximum data and service resiliency with simplified management using Cisco StackWise-480 technology, which is built on the highly successful industry-leading Cisco StackWise® technology. These Cisco Catalyst 3850 SFP fiber switches are fully stackable with the other Cisco Catalyst 3850 fixed GE access switches so that they can be managed as a single logical switching unit. StackWise-480 delivers 480 Gbps of stacking bandwidth, while Cisco IOS Software Stateful Switchover (SSO) provides resiliency within the stack.

## Primary Advantages of Cisco Catalyst SFP Fiber 3850 Switches

### Efficient Aggregations for Converged Wired and Wireless Network

The Cisco Catalyst 3850 SFP fiber switches provide a highly efficient stackable or standalone aggregation platform that redirects network traffic from access switches. Because it is fully stackable with other Cisco Catalyst 3850 access switches, all network services such as QoS, security, and Flexible NetFlow (FnF) for wired and wireless on the same stack can be easily configured and preserved from access through aggregation. Cisco Catalyst 3850 switches and Cisco Unified Access help you spend less time running the network, significantly reducing OpEx, while freeing up more time for innovation.

### Advanced Security

The Cisco Catalyst 3850 SFP fiber switches support Cisco TrustSec functionality and integration with Cisco Identity Services Engine. Cisco TrustSec uses the device and user credentials acquired during authentication for classifying the packets by security groups as they enter the network with scalability and simplified management. The Cisco Catalyst 3850 switches are also hardware ready for link layer MACsec encryption (software will be available in a future release) to protect data traffic across the network, suitable for meeting regulatory and compliance requirements.

### Application Visibility and Control (AVC)

With the native support for Flexible NetFlow on all the ports, the new Cisco Catalyst 3850 SFP fiber switches offer full visibility of traffic in both fiber access and aggregation. Network traffic originally generated by wired or wireless devices can be prioritized from the access layer through the aggregation layer using advanced QoS capabilities for an improved user experience and faster troubleshooting.

### IT Simplicity and Network Programmability

The new Cisco Catalyst 3850 SFP fiber switches help you simplify your operational tasks with innovative features such as SmartOperations and PlugnPlay to reduce the workflow of day 0/1 deployments, provisioning, and troubleshooting. The Cisco Catalyst 3850 switches are built on the UADP ASIC, which provides wire-rate hardware performance with software programmability. The Cisco 3850 Catalyst switches with fiber data ports support the [Cisco Enterprise Networks Architecture](#) and [Cisco APIC Enterprise Module](#) (in a future software release) for openness, programmability, and operational simplicity.

In summary, the Cisco Catalyst 3850 Series Switches with the expanded SFP fiber models not only deliver on the growing needs of your IT networks today but also future proof your network for the next-generation enterprise with reduced TCO. For More Information, visit [www.cisco.com/go/3850](http://www.cisco.com/go/3850).