

## Cisco Catalyst 4500 E-Series with CenterFlex Technology: Delivering Secure, Flexible, Nonstop Communications

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Cisco® is pleased to announce the Cisco Catalyst® 4500 E-Series with CenterFlex technology, providing secure, flexible, nonstop communications to facilitate business resilience for enterprises, small and medium-sized businesses (SMBs), and Metro Ethernet customers deploying business-critical applications. The Cisco Catalyst 4500 E-Series, including the new Cisco Catalyst 4500 Supervisor Engine 6-E, three new E-Series line cards, and four new E-Series chassis, is a next-generation extension to the widely deployed Cisco Catalyst 4000 and 4500 Series of switches.

CenterFlex technology is enabled by the Supervisor Engine 6-E centralized application-specific integrated circuits (ASICs), which deliver the highest centralized performance and configuration flexibility in the industry. CenterFlex technology facilitates granular optimization of real-time voice, video, and data communication, maximizing performance and enhancing user experience. The new E-Series with CenterFlex technology is designed with unprecedented backward and forward compatibility, delivering exceptional investment protection and deployment flexibility to meet the evolving needs of organizations of all sizes.

For more information, refer to the Cisco Catalyst 4500 CenterFlex white paper at:

[http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/prod\\_white\\_paper0900aecd806dc821.shtml](http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/prod_white_paper0900aecd806dc821.shtml).

### Cisco Catalyst 4500 Supervisor Engine 6-E



The Cisco Catalyst 4500 Supervisor Engine 6-E with CenterFlex technology is an intelligent, high-performance, next-generation extension to the Cisco Catalyst 4500 Series optimized for customers deploying business-critical applications.

Key Supervisor Engine 6-E features include:

- Centralized 320-Gbps switching capacity with 250 Mpps of throughput
- Flexibility to operate at 6 or 24 Gb per line-card slot
- Ability to mix-and-match classic 6-Gb and E-Series 24-Gb line cards, with no performance degradation
- Dual 10 Gigabit Ethernet uplinks (X2 optics)
- Twin gigabit converter modules that offer flexibility for up to 4 Gigabit Ethernet (Small Form-Factor Pluggable [SFP]) uplinks in the X2 optic slots

- IPv6 support in hardware, providing wire-rate forwarding for IPv6 networks
- Dynamic hardware forwarding-table allocations for ease of IPv4-to-IPv6 migration
- Advanced quality of service (QoS) support with 8 queues per port, dynamic queue sizing, and hierarchical policing
- Enhanced security with Unicast Reverse Path Forwarding (URPF) for added protection against network spoofing attacks
- FAT file system for easier network administration
- Quack support for protection against counterfeit line cards

For more information, refer to the Cisco Catalyst 4500 Supervisor 6-E data sheet at:

[http://www.cisco.com/en/US/products/hw/switches/ps4324/products\\_data\\_sheets\\_list.html](http://www.cisco.com/en/US/products/hw/switches/ps4324/products_data_sheets_list.html).

### Cisco Catalyst 4500 E-Series Line Cards



The Cisco Catalyst 4500 E-Series line cards include the following options:

- 48-port 10/100/1000 E-Series Power over Ethernet (PoE) line card (2:1 oversubscribed)
- 48-port 10/100/1000 E-Series Premium PoE line card (2:1 oversubscribed)
- 6-port 10 Gigabit Ethernet E-Series line card (2.5:1 oversubscribed)

The Cisco Catalyst 4500 48-port 10/100/1000 PoE and premium PoE E-Series line cards are designed for high-performance LAN access applications. The Cisco Catalyst 4500 6-Port 10 Gigabit Ethernet E-Series Line Card can be deployed for high-performance 10 Gigabit Ethernet aggregation in the campus, in small to medium-sized networks as a core switch, or in high-performance wiring closets where additional 10 Gigabit Ethernet uplinks are required. The Cisco Catalyst 4500 6-Port 10 Gigabit Ethernet E-Series Line Card supports standard X2 optics as well as Cisco Twin Gigabit Converter modules as orderable options.

For more information, refer to the Cisco Catalyst 4500 Line Card data sheet at:

[http://www.cisco.com/en/US/prod/collateral/modules/ps2710/ps5494/product\\_data\\_sheet0900aecd802109ea.html](http://www.cisco.com/en/US/prod/collateral/modules/ps2710/ps5494/product_data_sheet0900aecd802109ea.html).

## Cisco Catalyst 4500 E-Series Chassis

**Figure 1.** Cisco Catalyst 4500 E-Series Chassis



The Cisco Catalyst 4500 E-Series consists of four new chassis models, including 10-slot, 7-slot, 6-slot, and 3-slot versions (Figure 1). The new E-Series chassis supports the E-Series supervisor engine and E-Series line cards in addition to all currently shipping classic Cisco IOS<sup>®</sup> supervisor engines, classic line cards dating back to 1999, and Cisco Catalyst 4500 power supplies for investment protection. The Cisco Catalyst 4500 E-Series chassis supports both 6 and 24 Gbps per line-card slot with no effect on performance if slot speeds are mixed in the same chassis.

For more information, refer to the Cisco Catalyst 4500 Chassis data sheet at:

[http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/product\\_data\\_sheet0900aecd801792b1.html](http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/product_data_sheet0900aecd801792b1.html).

### Ordering Information

Table 1 gives ordering information, Table 2 gives availability information, and Table 3 gives software requirements for the Cisco Catalyst 4500 E-Series.

**Table 1.** Ordering Information for Cisco Catalyst 4500 E-Series

Product ID	Description
<b>WS-X45-SUP6-E</b>	Cisco Catalyst 4500 E Series Supervisor Engine 6-E, 2x10GE (X2) or 4x1GE (SFP), Console RJ-45,USB
<b>WS-C4503-E</b>	Cisco Catalyst E Series 4503 Switch (3-slot chassis), fan, no power supply
<b>WS-C4506-E</b>	Cisco Catalyst E Series 4506 Switch (6-slot chassis), fan, no power supply
<b>WS-C4507R-E</b>	Cisco Catalyst E Series 4507R Switch (7-slot chassis), fan, no power supply, redundant supervisor capable
<b>WS-C4510R-E</b>	Cisco Catalyst E Series 4510R Switch (10-slot chassis), fan, no power supply; redundant supervisor capable
<b>WS-X4648-RJ45V-E</b>	Cisco Catalyst 4500 E-Series 48-port 802.3af PoE 10/100/1000 (RJ-45)
<b>WS-X4648-RJ45V+E</b>	Catalyst 4500 E-Series 48-Port Premium PoE 10/100/1000
<b>WS-X4606-X2-E</b>	Cisco Catalyst 4500 E-Series 6-port 10GbE (X2)
<b>S45EIPB-12240SG(=)</b>	Cisco IOS Software for Supervisor Engine 6-E (IP Base image)
<b>S45EIPBK9-12240SG(=)</b>	Cisco IOS Software for Supervisor Engine 6-E (IP Base image with 3DES)
<b>S45EES-12240SG(=)</b>	Cisco IOS Software for Supervisor Engine 6-E (Enterprise Services image)
<b>S45EESK9-12240SG(=)</b>	Cisco IOS Software for Supervisor Engine 6-E (Enterprise Services image with 3DES)
<b>MEM-C4K-FLD64M</b>	Compact Flash memory, 64-MB option
<b>MEM-C4K-FLD128M</b>	Compact Flash memory, 128-MB option
<b>MEM-X45-512MB-E</b>	Cisco Catalyst 4500 512MB to 1 GB SDRAM Upgrade for Supervisor Engine 6-E

**Table 2.** Availability Information for Cisco Catalyst 4500 E-Series

Part Number	Ordering Opened	Target First Customer Shipment (FCS)	Volume Shipped	Lead Time
<b>WS-X45-SUP6-E</b>	1st Half of November 2007	2nd Half of November 2007	2nd Half of December 2007	Standard
<b>WS-C4503-E</b>	8/1/2007	Now	Now	Standard
<b>WS-C4506-E</b>	8/1/2007	Now	Now	Standard
<b>WS-C4507R-E</b>	1st Half of November 2007	2nd Half of November 2007	2nd Half of December 2007	Standard
<b>WS-C4510R-E</b>	1st Half of November 2007	2nd Half of November 2007	2nd Half of December 2007	Standard
<b>WS-X4648-RJ45V-E</b>	1st Half of November 2007	2nd Half of November 2007	2nd Half of December 2007	Standard
<b>WS-X4648-RJ45V+E</b>	1st Half of November 2007	2nd Half of November 2007	2nd Half of December 2007	Standard
<b>WS-X4606-X2-E</b>	1st Half of November 2007	2nd Half of November 2007	2nd Half of December 2007	Standard
<b>CVR-X2-SFP</b>	1st Half of November 2007	2nd Half of November 2007	2nd Half of December 2007	Standard
<b>S4KL3-12240SG</b>	1st Half of November 2007	2nd Half of November 2007	2nd Half of December 2007	Standard
<b>S4KL3K9-12240SG</b>	1st Half of November 2007	2nd Half of November 2007	2nd Half of December 2007	Standard
<b>S4KL3E-12240 SG</b>	1st Half of November 2007	2nd Half of November 2007	2nd Half of December 2007	Standard
<b>S4KL3EK9-12240 SG</b>	1st Half of November 2007	2nd Half of November 2007	2nd Half of December 2007	Standard
<b>MEM-C4K-FLD64M</b>	1st Half of November 2007	2nd Half of November 2007	2nd Half of December 2007	Standard
<b>MEM-C4K-FLD128M</b>	1st Half of November 2007	2nd Half of November 2007	2nd Half of December 2007	Standard
<b>MEM-X45-512MB-E</b>	1st Half of November 2007	2nd Half of November 2007	2nd Half of December 2007	Standard

**Table 3.** Software Requirements for Cisco Catalyst 4500 E-Series

Product	Software Type	U.S. List Price
<b>Cisco Catalyst 4500 Supervisor Engine 6-E</b>	Cisco IOS Software	Cisco IOS Software Release 12.2(40)SG or later
<b>Cisco Catalyst 4503-E and 4506-E-Series model chassis</b>	Cisco IOS Software	Cisco IOS Software Release 12.2(37)SG or later
<b>Cisco Catalyst 4507R-E and 4510R-E-Series model chassis</b>	Cisco IOS Software	Cisco IOS Software Release 12.2(40)SG or later
<b>Cisco Catalyst 4500 E-Series Line Cards</b>	Cisco IOS Software	Cisco IOS Software Release 12.2(40)SG or later

For additional information, visit:

- Cisco Catalyst 4500 Series homepage:  
<http://www.cisco.com/en/US/products/hw/switches/ps4324/index.html>.
- Cisco Catalyst 4500 Series data sheet:  
[http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/product\\_data\\_sheet09186a008033a3bd.html](http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/product_data_sheet09186a008033a3bd.html).
- Cisco Catalyst 4500 Series Supervisor Engine 6-E data sheet:  
[http://www.cisco.com/en/US/products/hw/switches/ps4324/products\\_data\\_sheets\\_list.html](http://www.cisco.com/en/US/products/hw/switches/ps4324/products_data_sheets_list.html).
- Cisco Catalyst 4500 Series CenterFlex white paper:  
[http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/prod\\_white\\_paper0900aecd806dc821.shtml](http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/prod_white_paper0900aecd806dc821.shtml).
- Cisco Catalyst 4500 Series Line Card data sheet:  
[http://www.cisco.com/en/US/products/hw/switches/ps4324/products\\_data\\_sheet0900aecd802109ea.html](http://www.cisco.com/en/US/products/hw/switches/ps4324/products_data_sheet0900aecd802109ea.html).
- Cisco Catalyst 4500 Series Chassis data sheet:  
[http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/product\\_data\\_sheet0900aecd801792b1.html](http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/product_data_sheet0900aecd801792b1.html).
- Cisco Catalyst 4500 Series PowerPoint presentation:  
[http://www.cisco.com/en/US/products/hw/switches/ps4324/prod\\_presentation\\_list.html](http://www.cisco.com/en/US/products/hw/switches/ps4324/prod_presentation_list.html).
- Cisco Catalyst 4500 E-Series Q&A:  
[http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/prod\\_qas0900aecd806d8b06.shtml](http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/prod_qas0900aecd806d8b06.shtml).

## Service and Support

Cisco offers a wide range of services programs to accelerate customer success. These innovative services programs are delivered through a unique combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction. Cisco services help you protect your network investment, optimize network operations, and prepare your network for new applications to extend network intelligence and the power of your business. For more information about Cisco Services, refer to Cisco Technical Support Services or Cisco Advanced Services.

## For More Information

For more information about the Cisco Catalyst 4500 Series, visit:

<http://www.cisco.com/en/US/products/hw/switches/ps4324/index.html>.

For additional information about Cisco products, contact:

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