

## Cisco Catalyst 6500 Series Supervisor Engine 2T

- Q.** What is the Cisco Catalyst® 6500 Series Supervisor Engine 2T?
- A.** The Cisco® Supervisor Engine 2T is the newest addition to the Cisco Catalyst 6500 Series supervisor product family. The Cisco Supervisor Engine 2T is designed to deliver higher performance, better scalability, and enhanced hardware enabled features. It integrates a high-performance 2-terabit (Tb) crossbar switch fabric that enables 80-Gbps switching capacity per slot on all Cisco Catalyst 6500 Series Switches.
- Q.** What chassis support the Cisco Supervisor Engine 2T?
- A.** The Cisco Supervisor Engine 2T is supported only in the Cisco Catalyst 6500 E-Series chassis: Cisco Catalyst 6503-E, 6504-E, 6506-E, 6509-E, 6509-V-E, and 6513-E Switches. The Cisco Supervisor Engine 2T will not be supported in the Cisco Catalyst 6500 Series NEB chassis or non-E-Series chassis.
- Q.** How do I upgrade my current systems to a Cisco Supervisor Engine 2T system if I currently have line cards other than Cisco 6700 Series line cards?
- A.** A system with Cisco Supervisor Engine 2T will support the following line cards in addition to Cisco 6700 Series line cards:
- WS-X6148A-RJ-45, WS-X6148-FE-SFP, and WS-X6148A-GE-TX
  - WS-X6148A-GE-45AF, WS-X6148E-GE-AT, and WS-X6148A-45AF
- No hardware or software changes are required. Starting 15.1(1)SY, WS-X6148E-GE-AT can be supported in a Cisco Virtual Switching System (VSS) enabled system. Other line cards listed above are not supported.
- Q.** Which Cisco 6800 series line cards are supported with the Cisco Supervisor Engine 2T system?
- A.** All Cisco 6800 series line cards are supported in a Cisco Supervisor Engine 2T system. The Cisco 6800 series line cards come assembled with DFC4 or DFC4XL daughter cards.
- Q.** Are the supervisor slots dedicated to Cisco Supervisor Engine 2T, or can I reuse a supervisor slot for a line card?
- A.** Table 1 shows the allowed supervisor and line-card slot allocation by chassis type.

**Table 1.** Allowed Supervisor and Line-Card Slot Allocation by Chassis Type

	Cisco Catalyst 6503-E	Cisco Catalyst 6504-E	Cisco Catalyst 6506-E	Cisco Catalyst 6509-E	Cisco Catalyst 6509-V-E	Cisco Catalyst 6513-E
<b>Slot 1</b>	Supervisor or line card	Supervisor or line card	Line card	Line card	Line card	Line card
<b>Slot 2</b>	Supervisor or line card	Supervisor or line card	Line card	Line card	Line card	Line card
<b>Slot 3</b>	Line card	Line card	Line card	Line card	Line card	Line card
<b>Slot 4</b>		Line card	Line card	Line card	Line card	Line card
<b>Slot 5</b>			Supervisor or line card	Supervisor or line card	Supervisor or line card	Line card
<b>Slot 6</b>			Supervisor or line card	Supervisor or line card	Supervisor or line card	Line card
<b>Slot 7</b>				Line card	Line card	Supervisor or line card

	Cisco Catalyst 6503-E	Cisco Catalyst 6504-E	Cisco Catalyst 6506-E	Cisco Catalyst 6509-E	Cisco Catalyst 6509-V-E	Cisco Catalyst 6513-E
Slot 8				Line card	Line card	Supervisor or line card*
Slot 9				Line card	Line card	Line card
Slot 10						Line card
Slot 11						Line card
Slot 12						Line card
Slot 13						Line card

\* Only modules with no fabric attachment are allowed in a future release.

- Q.** Will the Cisco Supervisor Engine 2T support bundles similar to the Cisco® Catalyst® 6500 Series Virtual Switching Supervisor Engine 720 bundle?
- A.** At first customer shipment (FCS), no bundles will be offered with the Cisco Supervisor Engine 2T. All Cisco Catalyst 6500 Series product pricing information and availability can be accessed at <http://www.cisco.com/en/US/products/hw/switches/ps708/index.html>.
- Q.** I have Cisco 6700 Series line cards today with Centralized Forwarding Cards (CFCs). Are these line cards supported in a Cisco Supervisor Engine 2T system?
- A.** A Cisco Supervisor Engine 2T system will support all Cisco 6700 Series line cards with CFCs.
- Q.** I have Cisco 6700 Series line cards today with the Distributed Forwarding Card 3 (DFC3). What are my options for upgrading to a Cisco Supervisor Engine 2T system?
- A.** Table 2 shows the options for upgrading to a Cisco Supervisor Engine 2T system.

**Table 2.** Upgrade Options

Line Card Part Number	WS-F6K-DFC4-A	WS-F6K-DFC4-AXL	WS-F6K-DFC4-E	WS-F6K-DFC4-EXL
WS-X6704-10GE	X	X		
WS-X6724-SFP	X	X		
WS-X6748-SFP	X	X		
WS-X6748-GE-TX	X	X		
WS-X6716-10G-3C			X	X
WS-X6716-10G-3CXL			X	X
WS-X6716-10T-3C			X	X
WS-X6716-10G-3CXL			X	X

The DFC4 or DFC4XL can be purchased as a spare.

- Q.** I have Cisco 6700 Series line cards today with CFC. Will an upgrade to DFC4 be supported on a Cisco Supervisor Engine 2T system?
- A.** Yes. You can upgrade a Cisco 6700 Series line card with CFC to DFC4. This upgrade is supported on a Cisco Supervisor Engine 2T system. The DFC4 versions used for the upgrade are:
- WS-F6K-DFC4-A
  - WS-F6K-DFC4-AXL

Both WS-F6K-DFC4-A and WS-F6K-DFC4-AXL can be purchased as spares.

- Q.** Will the existing oversubscribed cards become nonblocking with Cisco Supervisor Engine 2T?
- A.** No. The line cards maintain their characteristics when they move from existing systems to the future 80-Gbps systems with the Cisco Supervisor Engine 2T. For example, the current 6716-10G-3C line card with 4:1 oversubscription in the current systems will still have 4:1 oversubscription in a system deployed with the Cisco Supervisor Engine 2T.
- Q.** Can I mix a Cisco Supervisor Engine 2T with Sup720-10G in a VSS-configured system?
- A.** No. With VSS, both supervisor engines must be the same.
- Q.** Can I use existing power supplies with Cisco Supervisor Engine 2T?
- A.** All existing power supplies that are not in end-of-life status will be supported with systems deployed with Cisco Supervisor Engine 2T. The power calculator can be used to determine the best power supply options; see <http://tools.cisco.com/cpc/>.
- Q.** Will a Cisco Supervisor Engine 2T system support the use of all four active uplink ports in a VSS configured system?
- A.** No. Cisco Supervisor Engine 2T with quad-supervisor uplink forwarding will not be supported at FCS. This function will be added at a future date.
- Q.** What software images does Cisco Supervisor Engine 2T support?
- A.** At FCS, Cisco Supervisor Engine 2T will be supported with Cisco IOS® Software Release 12.2(50) SY.
- Q.** What software licensing options do I have with Cisco Supervisor Engine 2T?
- A.** The following three options are available for Cisco Supervisor Engine 2T systems:
- IP Base
  - IP Services
  - Advanced IP Services
  - Advanced Enterprise Services

For a detail list of all features included in each package, please refer to Cisco IOS Packaging Q&A.

- Q.** Is the Cisco Supervisor Engine 2T part of the Cisco Catalyst 6500 Series Technology Migration program?
- A.** Yes. We will offer financial incentives through the Cisco Technology Migration Program (TMP) to upgrade to Cisco Supervisor Engine 2T. Please contact your local sales representative for more details on the CTMP program.
- Q.** What part numbers do I use to order the Cisco Supervisor Engine 2T?
- A.** Table 3 provides ordering information.

**Table 3.** Ordering Information for Cisco Supervisor Engine 2T

Part Number	Product Description
<b>VS-S2T-10G</b>	Catalyst 6500 Supervisor Engine 2T
<b>VS-S2T-10G=</b>	Catalyst 6500 Supervisor Engine 2T Spare
<b>VS-S2T-10G-XL</b>	Catalyst 6500 Supervisor Engine 2T XL
<b>VS-S2T-10G-XL=</b>	Catalyst 6500 Supervisor Engine 2T XL Spare

- Q.** What part numbers do I use to upgrade from PFC4 to PFC4XL on the Cisco Supervisor Engine 2T?  
**A.** Table 4 provides ordering information.

**Table 4.** Ordering Information to Upgrade from PFC4 to PFC4XL

Part Number	Product Description
VS-F6K-PFC4XL=	Catalyst 6500 Policy Feature Card 4 for Supervisor Engine 2T Spare

- Q.** What memory options are available for the Cisco Supervisor Engine 2T?  
**A.** Table 5 lists the memory options.

**Table 5.** Memory Options

Part Number	Product Description
MEM-SUP2T-2GB	Catalyst 6500 2G memory option
MEM-SUP2T-2GB=	Catalyst 6500 2G memory option spare
MEM-SUP2T-4GB	Catalyst 6500 Compact Flash Memory 4GB
MEM-C6K-CPTFL1GB	Catalyst 6500 Compact Flash Memory 1GB
MEM-C6k-CPTFL1GB=	Catalyst 6500 Compact Flash Memory 1GB Spare
MEM-C6K-CPTFL2GB	Catalyst 6500 Compact Flash Memory 2GB
MEM-C6k-CPTFL2GB=	Catalyst 6500 Compact Flash Memory 2GB Spare

- Q.** Is compact flash memory interchangeable between the Cisco Supervisor Engine 720 and Cisco Supervisor Engine 2T?  
**A.** The current 256 and 512-MB compact flash memory supported by Cisco Supervisor Engine 720 is not supported by Cisco Supervisor Engine 2T. The Cisco Supervisor Engine 2T supports only 1-GB compact flash memory (MEM-C6K-CPTFL1GB) and 2-GB compact flash memory (MEM-C6K-CPTFL2GB).
- Q.** What is the default compact flash memory size for Cisco Supervisor Engine 2T?  
**A.** The default compact flash memory size for Cisco Supervisor Engine 2T is 1 GB.
- Q.** What are the default and upgrade options for Cisco Supervisor Engine 2T DRAM?  
**A.** Both the Cisco Supervisor Engine 2T lite and XL versions have 2-GB DRAM as the default. Both can be upgraded to 4 GB with an additional 2-GB DRAM purchase. The memory configuration for 4 GB is 2 GB plus 2 GB. There is a 4-GB DRAM memory option which is available at ordering time. By choosing the 4-GB DRAM option, you get a 2 plus 2 GB for a total of 4-GB DRAM. The part number is MEM-SUP2T-4GB and is only available when configuring a system. The memory requirements for the non-XL and XL versions are the same.
- Q.** Can the 3 x GE SFP and the 2 x 10G X2 Uplink Ports be used simultaneously on a Cisco Supervisor Engine 2T?  
**A.** Yes. They can also be used with both Active/Standby Supervisor 2T in a dual-supervisor system.
- Q.** Is conversion from X2 to Enhanced Small Form-Factor Pluggable (SFP+) supported for Cisco Supervisor Engine 2T uplinks?  
**A.** Conversion from X2 to SFP+ can be performed through the OneX adapters available for Cisco Supervisor Engine 2T uplinks. For more information, please visit [http://www.cisco.com/en/US/prod/collateral/modules/ps5455/data\\_sheet\\_c78-547521.html](http://www.cisco.com/en/US/prod/collateral/modules/ps5455/data_sheet_c78-547521.html).

**Q.** Are existing Cisco Catalyst 6500 Series WAN line cards supported with Cisco Supervisor Engine 2T?

**A.** No. We have no plans to support the existing Cisco Catalyst 6500 Series WAN line cards.

**Q.** Which service modules are supported with Cisco Supervisor Engine 2T?

**A.** The following service modules are supported: Cisco Catalyst 6500 Series Firewall Services Module (FWSM), Cisco Adaptive Security Appliances (ASA) service module, Cisco Application Control Engine (ACE) 20, and Cisco Catalyst 6500 Series/7600 Series Wireless Services Module (WiSM) and WiSM-2.

Part Number	Product Description
ACE20	Cisco Catalyst 6500 Application Control Engine 20 Hardware
NAM-1	Cisco Catalyst 6500 Network Analysis Module 1
NAM-2	Cisco Catalyst 6500 Network Analysis Module 2
FWSM	Cisco Catalyst 6500 Firewall Service Module
WISM	Cisco Catalyst 6500 Wireless Service Module
WISM2	Cisco Catalyst 6500 Wireless Services Module 2
ACE 30	Cisco Catalyst 6500 Application Control Engine 30 Hardware
NAM-3	Cisco Catalyst 6500 Network Analysis Module 3
ASA-SM	Cisco Catalyst 6500 Adaptive Security Appliance

**Q.** I would like to learn more about the Cisco Supervisor Engine 2T. Where can I find this information?

**A.** For more information, see:

- Data sheet: [http://www.cisco.com/en/US/products/hw/switches/ps708/products\\_data\\_sheets\\_list.html](http://www.cisco.com/en/US/products/hw/switches/ps708/products_data_sheets_list.html)
- Product bulletin: [http://www.cisco.com/en/US/products/hw/switches/ps708/prod\\_bulletins\\_list.html](http://www.cisco.com/en/US/products/hw/switches/ps708/prod_bulletins_list.html)



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