Cisco ME 6524 Ethernet Switch

Product Bulletin No. 3218

Cisco introduces the Cisco® ME 6524 Ethernet Switch, a next-generation, fixed-configuration switch built to meet the requirements of Carrier Ethernet networks. Based on ground-breaking and industry-leading Cisco Catalyst® 6500 Series technology, the Cisco ME 6524 cost-effectively delivers on the stringent performance, reliability, and quality of service (QoS) requirements of triple-play services, as well as VPN services for Ethernet-to-the-Home (EttH), Ethernet-to-the-Business (EttB), and DSLAM aggregation deployments. The space- and power-optimized 1.5-rack-unit (1.5RU) Cisco ME 6524 enhances the industry-leading Cisco Carrier Ethernet solution portfolio by extending highly advanced Multiprotocol Label Switching (MPLS), QoS, multicast, and IPv6 features into Ethernet access and aggregation networks, facilitating scalable and service-rich Gigabit Ethernet access for both fiber and copper deployments.

The Cisco ME 6524, equipped with the Policy Feature Card 3C (PFC3C) and Multilayer Switch Feature Card 2A (MSFC2A), extends the Catalyst 6500 Series innovations to the service-provider access network. The PFC3C offers hardware-based MAC learning and increases the MAC address table capacity by 50 percent in comparison to the PFC3B and PFC3BXL. It strengthens security by protecting network resources and by intelligently granting access to subscribers, with features such as port-based and VLAN-based access control lists (ACLs), CPU Rate Limiters, Port Security, Private VLAN, Dynamic Host Configuration Protocol (DHCP) Snooping, and IEEE 802.1x. These security features are hardware-based and can be enabled concurrently without compromising system performance as traffic levels increase.

The support for Software Modularity ensures maximum high availability, boosts operational efficiency, and minimizes downtime through evolutionary software infrastructure advancements. By enabling modular Cisco IOS® subsystems to run as independent, self-healing processes, this innovation minimizes unplanned downtime through fault containment and stateful process restarts, simplifies software changes through subsystem In-Service Software Upgrades (ISSU), and enables process-level, automated policy control by integrating Embedded Event Manager (EEM), all key benefits necessary for Carrier Ethernet and Broadband Aggregation deployments. Software Modularity images require a minimum of 512 MB DRAM on the switch processor.

Furthermore, the PFC3C offers scalable support for multicast applications with protocols such as Internet Group Management Protocol Version 3 (IGMPv3), Protocol Independent Multicast (PIM), PIM Sparse Mode (PIM-SM), PIM Source Specific Multicast (PIM-SSM), and PIM Snooping, which optimize triple-play delivery at the network edge.

The Cisco ME 6524 can scale to support MPLS and IPv6 applications for Layer 2 and Layer 3 VPN services integration.

Announcement Summary

There are two models of the Cisco ME 6524:

- Cisco ME 6524 with 24 Gigabit Ethernet Small Form-Factor Pluggable (SFP) downlinks and 8 Gigabit Ethernet SFP uplinks (part number ME-C6524GS-8S), as shown in Figure 1.

Figure 1. Cisco ME 6524 with 24 Gigabit Ethernet SFP Downlinks

- Cisco ME 6524 with 24 Ethernet 10/100/1000 downlinks and 8 Gigabit Ethernet SFP uplinks (part number ME-C6524GT-8S), as shown in Figure 2.

Figure 2. Cisco ME 6524 with 24 Ethernet 10/100/1000 Downlinks

Specifications

The Cisco ME 6524 is a space- and power-optimized Ethernet access switch with the following specifications:

- 1.5 RU rack space
- Dimension: 2.625 inches height x 17.45 inches width x 19 inches depth (6.7 x 44.3 x 48.3 cm)
- 400W AC or DC power supplies

Because it comes standard with the PFC3C, the Cisco ME 6524 offers architecture and feature consistency with the Cisco Catalyst 6500 Supervisor Engine 720 and Supervisor Engine 32.

Table 1 summarizes the key features available on the Cisco ME 6524. Tables 2 and 3 provide ordering information.

Table 1. Key Features of the Cisco ME 6524

Technology	Feature
Layer 2 switching	IEEE 802.1Q IEEE 802.1D/802.1w/802.1s Port Aggregation Protocol (PAgP) / IEEE 802.3ad IEEE 802.1Q Tunneling Layer 2 Tunneling Protocol (L2TP) Flexlink IEEE 802.3x Cisco Discovery Protocol VLAN Trunking Protocol (VTP) Unidirectional Link Detection (UDLD)
IPv4 routing	Static Routing Open Shortest Path First (OSPF) OSPF Graceful Restart (RFC 3623) Enhanced Interior Group Routing Protocol (EIGRP) Intermediate System-to-Intermediate System (IS-IS) Protocol Border Gateway Protocol Version 4 (BGPv4) Hot Standby Router Protocol (HSRP) Virtual Router Redundancy Protocol (VRRP) Gateway Load Balancing Protocol (GLBP) Bidirectional Forwarding Detection (BFD) for OSPF, IS-IS, and BGP
Security	Port Security on access, 802.1Q trunk, and 802.1Q tunneling ports IEEE 802.1x Private VLAN Per-VLAN MAC Limiting Control Plane Policing Hardware-based Rate Limiters Unicast Flood Blocking Storm Control Dynamic Host Configuration Protocol (DHCP) Snooping DHCP Option 82 Dynamic ARP Inspection VLAN-based and port-based ACLs IP Source Guard Private Host
Multicast	IGMP v1, v2, v3 IGMP Snooping PIM, PIM-SM, PIM-SSM PIM Snooping Bidirectional PIM
Quality of Service	Ingress Policing (Per Port, Per VLAN, Per Port + Per VLAN) Shaped Round Robin (SRR) and Deficit Weighted Round Robin (DWRR) Scheduling DSCP Transparency Class of service (CoS) Mutation
MPLS	Ethernet over MPLS (VC Type 4 and VC Type 5) MPLS VPN Label Distribution Protocol (LDP) Traffic Engineering for OSPF (OSPF-TE) and IS-IS (ISIS-TE) Class-based Tunnel Selection MPLS TE Fast Reroute (FRR) Fast Reroute Prefix Independence

Technology	Feature
IPv6	Native IPv6 Routing Information Protocol next generation (RIPng), MP-BGP4, OSPFv3 IPv6 over IPv4 Tunnels Internet Control Message Protocol version 6 (ICMPv6) Configured, Automatic, Generic Routing Encapsulation (GRE), 6to4, ISATAP Tunnels IPv6 QoS PIM-SM and PIM-SSM

Ordering Information

Table 2. Cisco ME 6524 Product Numbers and Software Images

Product Number	Description
Cisco ME 6524	
ME-C6524GS-8S	24 Gigabit Ethernet SFP interfaces + 8 Gigabit Ethernet SFP uplinks, 1 fan tray
ME-C6524GT-8S	24 Ethernet 10/100/1000 interfaces + 8 Gigabit Ethernet SFP uplinks, 1 fan tray
Power Supply for Cisco ME 6524	
PWR-400W-AC=	400W AC power supply for the Cisco ME 6524
PWR-400W-DC=	400W DC power supply for the Cisco ME 6524
Memory Options for Cisco ME 6524	
MEM-XCEF720-256M	Default memory on the Cisco ME 6524 switch processor
MEM-XCEF720-512M	512-MB memory upgrade option for the switch processor on the Cisco ME 6524
MEM-XCEF720-1GB	1-GB memory upgrade option for the switch processor on the Cisco ME 6524
MEM-MSFC2-512MB	Default memory on the Cisco ME 6524 router processor
MEM-MSFC3-1GB	1-GB memory upgrade option for the router processor on the Cisco ME 6524
MEM-C6K-CPTFL512M	Default external 512-MB compact flash memory
Software Images	
S523IBL-12233SXH	Cisco ME 6524 IP Base LAN Only • Layer 2 feature set • RIP • EIGRP Stub
S523IBK9L-12233SXH	Cisco ME 6524 IP Base SSH LAN Only • Same functionalities as the Cisco ME 6524 IOS IP Base image
S523AIK9L-12233SXH	Cisco ME 6524 IOS Advanced IP Services • Same functionalities as the Cisco ME 6524 IOS IP Services image PLUS • Layer 3 IPv4 services • Layer 3 IPv6 services • Advanced MPLS feature set

Table 3. Availability Dates for Cisco ME 6524

Part Number	Availability Date
ME-C6524GS-8S and ME-C6524GS-8S=	August 2006
ME-C6524GT-8S and ME-C6524GT-8S=	August 2006
PWR-400W-DC and PWR-400W-DC=	August 2006
PWR-400W-AC and PWR-400W-AC=	May 2008
S523IBL-12233SXH	August 2007
S523IBK9L-12233SXH	August 2007
S523AIK9L-12233SXH	August 2007

For More Information

For more information about the Cisco ME 6524 Ethernet Switch, visit: http://www.cisco.com/en/US/products/ps6845/products_data_sheets_list.html.

Marketing Contacts

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