



# What's New in Cisco Product Documentation

---

April 2009

**RSS**

*What's New in Cisco Product Documentation* lists new and revised Cisco documentation since the last release of this monthly publication. To subscribe to the *What's New in Cisco Product Documentation* RSS feed, paste the following URL into your RSS reader:

[http://www.cisco.com/cdc\\_content\\_elements/rss/whats\\_new/whatsnew\\_rss\\_feed.xml](http://www.cisco.com/cdc_content_elements/rss/whats_new/whatsnew_rss_feed.xml)

Previous releases of the *What's New in Cisco Product Documentation* are available at the following URL:

<http://www.cisco.com/en/US/docs/general/whatsnew/archive/archive.html>

## **Cisco Product Documentation DVD Discontinued**

Get your last copy of the Product Documentation DVD! The Product Documentation DVD has been discontinued and will no longer be made available. For a limited time, you can order the final copy of the product at the Collateral Store in Marketplace (part number DOC-DOCDVD=),

<http://cisco.mediuscorp.com/docdvd>.

For the latest product documentation on all Cisco products, go to

<http://www.cisco.com/en/US/support/index.html>.

## **Recent Linksys Document Migration**

Software downloads for Cisco Small Business (formerly Linksys Business Series) Products are now available at the [Cisco Software Center](#).

Also available are more than 600 Q&A articles to assist in the configuration, troubleshooting, and maintenance of Cisco Small Business Products.

View a representative sample [Q&A article](#).

## **Announcing: New Edition of the Cisco Product Quick Reference Guide Now Available Stay Current on Cisco Products with This Valuable Tool**

The February 2009 edition of the *Cisco Product Quick Reference Guide* is now shipping. This guide presents an overview of Cisco products, services, and solutions for every part of your business. It meets information needs for companies of all sizes.

The portable and easy-to-use reference tool with new built-in tabs summarizes current information about many of Cisco's products and services, including brief overviews, important features, technical specifications, part numbers, and ordering information. It's designed to help our partners, resellers, distributors, and sales account teams quickly learn about and sell Cisco products, services, and solutions that are right for their customers. It's also ideal for end users, networking professionals, and those studying for Cisco certification who need a broad, high-level overview.

For more information, or to place your order, visit the Cisco Product Quick Reference Guide website at:

<http://www.cisco.com/go/guide>



---

**Americas Headquarters:**  
**Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA**

© 2009 Cisco Systems, Inc. All rights reserved.

# Application Networking Services

## New Documents

- [Release Note for the Cisco Application Control Engine Module \(Software Version A2\(2\(X\)\)\)](#)  
Describes the resolved and open caveats, and CLI command changes for software version A2(2.0) of the ACE module.

## Revised Documents

- [Release Note for the Cisco Application Control Engine Module \(Software Version A2\(X\)\)](#)  
Describes the resolved and open caveats, and CLI command changes for software version A2(1.4) of the ACE module.

# Cisco Interfaces and Modules

## New Documents

- [1xOC-12/STM-4SONET/SDH SPA](#)  
Introduces support for the Cisco 7600 series 1-port channelized OC-12/STM-4 optical services module (OSM) for the channelized synchronous optical network (SONET) and the synchronous digital hierarchy (SDH) shared port adapter (SPA).
- [Cisco ASR 1000 Series Aggregation Services Routers SPAs and SIPs](#)  
Describes the configuration and troubleshooting of shared port adapters (SPAs) and SPA interface processors (SIPs) that are supported on Cisco ASR 1000 Series Aggregation Services Routers.

# Cisco IOS and NX-OS Software

## New Documents

- [Basic ATM Support of RFC1483](#)  
Provides the basic functions of ATM and compliance with RFC1483.
- [CFM Syslog Support](#)  
Provides syslog message support for Connectivity Fault Management (CFM) features.
- [Cisco IOS XR Advanced System Command Reference](#)  
Describes command syntax and usage guidelines for the following areas: ASIC drivers, troubleshooting, fabric management, tech-support command output, and watchdog.
- [Cisco IOS XR Command Modes](#)  
Provides descriptions of the modes that are available in the user command-line interface (CLI) that is used in Cisco IOS XR software.

- [\*Cisco IOS XR Getting Started Guide\*](#)

Provides an introduction to the Cisco IOS XR software command-line interface (CLI) and describes the initial router configuration tasks for standalone and multishelf routers.
- [\*Cisco IOS XR Interface and Hardware Component Command Reference\*](#)

Provides command syntax and usage guidelines for commands used to configure physical and virtual interfaces and additional hardware component types.
- [\*Cisco IOS XR Interface and Hardware Component Configuration Guide\*](#)

Provides interface configuration and management information and describes a variety of global interfaces.
- [\*Cisco IOS XR Interface and Hardware Component Debug Command Reference\*](#)

Describes commands used to debug interface and hardware features.
- [\*Cisco IOS XR IP Addresses and Services Command Reference\*](#)

Describes command syntax and usage guidelines for commands that include Address Resolution Protocol (ARP) and access control lists (ACLs).
- [\*Cisco IOS XR IP Addresses and Services Configuration Guide\*](#)

Describes concepts and configuration tasks for IP addresses and services technologies that include ARP, access control lists (ACLs), and Cisco Express Forwarding.
- [\*Cisco IOS XR IP Addresses and Services Debug Command Reference\*](#)

Describes commands used to debug IP address and services features.
- [\*Cisco IOS XR Modular Quality of Service Command Reference\*](#)

Describes the commands used to display and configure quality of service (QoS) in Cisco IOS XR software.
- [\*Cisco IOS XR Modular Quality of Service Configuration Guide\*](#)

Describes the Cisco IOS XR quality of service (QoS) feature for prioritizing traffic flows and providing preferential forwarding for higher-priority packets. The QoS techniques described include allocating bandwidth, improving loss characteristics, avoiding and managing network congestion, metering network traffic, and setting traffic-flow priorities across the network.
- [\*Cisco IOS XR Modular Quality of Service Debug Command Reference\*](#)

Describes commands used to debug the QoS software components.
- [\*Cisco IOS XR Multiprotocol Label Switching Command Reference\*](#)

Describes command syntax and usage guidelines for MPLS protocols that include Label Distribution Protocol (LDP), and MPLS Resource Reservation Protocol (RSVP).
- [\*Cisco IOS XR Multiprotocol Label Switching Configuration Guide\*](#)

Describes concepts and configuration tasks for Multiprotocol Label Switching (MPLS) facilities that include Label Distribution Protocol (LDP) and MPLS Resource Reservation Protocol (RSVP).
- [\*Cisco IOS XR Multiprotocol Label Switching Debug Command Reference\*](#)

Describes commands used to debug MPLS features and facilities.
- [\*Cisco IOS XR Multicast Command Reference\*](#)

Describes command syntax and usage guidelines for the multicast routing protocols that include Protocol Independent Multicast (PIM), Internet Group Management Protocol (IGMP), and Multicast Source Discovery Protocol (MSDP).

- [Cisco IOS XR Multicast Configuration Guide](#)  
Describes concepts and configuration tasks for the following technologies: PIM, IGMP, and MSDP.
- [Cisco IOS XR Multicast Debug Command Reference](#)  
Describes commands used to debug multicast facilities.
- [Cisco IOS XR ROM Monitor Guide](#)  
Describes configuration information and examples for using the ROM Monitor mode of the Cisco IOS XR software, including the following subjects: ROM Monitor overview and basic procedures.
- [Cisco IOS XR Routing Command Reference](#)  
Describes command syntax and usage guidelines to configure and monitor routing protocols that include Border Gateway Protocol (BGP) and Intermediate System-to-Intermediate System (IS-IS).
- [Cisco IOS XR Routing Configuration Guide](#)  
Describes concepts and configuration tasks for routing technologies that include BGP, EIGRP, IS-IS, and OSPF.
- [Cisco IOS XR Routing Debug Command Reference](#)  
Describes commands used to debug the various routing protocols.
- [Cisco IOS XR System Error Message Reference Guide](#)  
Describes Cisco IOS XR system error messages.
- [Cisco IOS XR System Management Command Reference](#)  
Describes command syntax and usage guidelines for various system management commands that include Network Time Protocol (NTP), process management, memory management, and terminal services.
- [Cisco IOS XR System Management Configuration Guide](#)  
Describes configuration tasks and concepts for managing services that include upgrading and managing Cisco IOS XR software packages, and upgrading field-programmable devices (FPD) software.
- [Cisco IOS XR System Management Debug Command Reference](#)  
Describes commands used to debug the System Manager.
- [Cisco IOS XR System Monitoring Command Reference](#)  
Describes command syntax and usage guidelines for alarm logs and logging correlation, IP Service Level Agreements (IP SLAs), fault management, logging services, performance management, OnBoard Fault Logging (OBFL), and statistics services.
- [Cisco IOS XR System Monitoring Configuration Guide](#)  
Describes configuration tasks and concepts for the following technologies: alarm logs and logging correlation, IP Service Level Agreements (IP SLAs), fault management, logging services, performance management, and OnBoard Fault Logging (OBFL).
- [Cisco IOS XR System Monitoring Debug Command Reference](#)  
Describes the commands used to debug alarm management and logging correlation.
- [Cisco IOS XR System Security Command Reference](#)  
Describes command syntax and usage guidelines for areas such as Internet Key Exchange (IKE), IPsec, and Public Key Infrastructure (PKI).

- [Cisco IOS XR System Security Configuration Guide](#)  
Describes the tasks that support System Security applications.
- [Cisco IOS XR System Security Debug Command Reference](#)  
Describes the commands used to debug the System Security software components.
- [Cisco IOS XR Task ID Reference Guide](#)  
Identifies the task IDs that enable users to perform operations for IOS XR commands.
- [Cisco IOS XR Virtual Firewall Command Reference](#)  
Describes command syntax and usage guidelines for the two command sets that support the Virtual Firewall (VFW) feature: Cisco IOS XR and SanOS (Linux).
- [Cisco IOS XR Virtual Firewall Configuration Guide](#)  
Describes the tasks that support creating, monitoring, and maintaining a Virtual Firewall (VFW).
- [DHCP—DHCPv6 Individual Address Assignment](#)  
Manages nonduplicate address assignment in the correct prefix based on the network where the host is connected.
- [DHCP Option 82 Configurable Circuit ID and Remote ID](#)  
Provides naming choices in the Option 82 Remote ID and Option 82 Circuit ID suboptions.
- [FPG: Endpoint Agnostic Port Allocation](#)  
Adds an entry to the symmetric port database.
- [L2VPN: Pseudowire Preferential Forwarding](#)  
Allows you to configure the pseudowires so that you can use **ping** and **show** commands to find status information of the pseudowires before, during, and after a switchover.
- [MPLS Support for Multisegment PWs](#)  
Enables you to configure two or more Layer 2 pseudowire segments that function as a single pseudowire.
- [NBAR Protocols](#)  
Describes Network-Based Application Recognition (NBAR), which is a classification engine that recognizes and classifies a wide variety of protocols and applications.
- [Per-VC Queueing for ATM](#)  
Allows you to apply class-based weighted fair queueing (CBWFQ) functionality to a virtual circuit (VC).
- [PfR—Protocol Independent Route Optimization \(PIRO\)](#)  
Introduces the ability of optimized edge routing (OER) to search for a parent route—an exact matching route or a less specific route—in any IP Routing Information Base (RIB), allowing OER to be deployed in any IP-routed environment including Interior Gateway Protocols (IGPs) such as Open Shortest Path First (OSPF) and Intermediate System-to-Intermediate System (IS-IS).
- [QoS Policy Support on L2VPN ATM PVPs](#)  
Enables you to configure quality of service (QoS) service policies in ATM permanent virtual path (PVP) mode for Layer 2 Virtual Private Networks (L2VPNs).
- [Release Notes for Cisco IOS XR Software Release 3.8.0](#)  
Describes new, changed, and unique characteristics of this release.

- *Secure Neighbor Discovery*

Counters the threats of the Neighbor Discovery Protocol (NDP), defines a set of neighbor discovery options and two neighbor discovery messages, and defines an autoconfiguration mechanism to establish address ownership.

## Revised Documents

- *Any Transport over MPLS (AToM): ATM Cell Relay over MPLS: VP Mode*

Describes ATM virtual path (VP) trunking over Multiprotocol Label Switching (MPLS).

- *Any Transport over MPLS (AToM): Graceful Restart*

Assists neighboring routers that have nonstop forwarding (NSF), stateful switchover (SSO), and graceful restart (GR) for Any Transport over MPLS (AToM) to recover gracefully from an interruption in service.

- *Any Transport over MPLS (AToM): Layer 2 QoS (Quality of Service)*

Describes the Layer 2 quality of service (QoS) features supported on Any Transport over MPLS (AToM).

- *Any Transport over MPLS (AToM): Single Cell Relay—VC Mode (CRoMPLS)*

Transports ATM cells across a Multiprotocol Label Switching (MPLS) backbone.

- *ATM Conditional Debug Support*

Allows debugging to be limited specifically to an ATM interface, to a virtual channel identifier (VCI), or to a virtual path identifier/virtual channel identifier (VPI/VCI) pair.

- *ATM MIB Enhancements*

Adds a proprietary extension to the standard ATM MIB (RFC 1695) to provide per-VC statistic counters that are currently displayed in response to the Cisco IOS **show atm vc** command for a specified virtual circuit.

- *ATM OAM Ping*

Sends an ATM Operation, Administration, and Maintenance (OAM) packet to confirm the connectivity of a specific permanent virtual circuit (PVC).

- *ATM OAM Support for F5 Continuity Check*

Provides the ability to detect connectivity failures at the ATM layer by introducing Operation, Administration, and Maintenance (OAM) support for F5 segment and end-to-end Continuity Check (CC) cells.

- *ATM OAM Traffic Reduction*

Describes a mechanism for reducing overhead when loopback cells are being used for fault detection in bidirectional virtual circuits (VCs) over ATM.

- *ATM PVC F5 OAM Recovery Traps*

Adds support for various ATM Operation, Administration, and Maintenance (OAM) failure and recovery traps.

- *ATM PVC Trap Enhancements for Segment and End AIS/RDI Failures*

Adds segment and end alarm indication signal (AIS)/remote defect indication (RDI) failure notification traps to the existing ATM permanent virtual circuit (PVC) trap infrastructure.

- *ATM PVC Trap Support*

Provides the implementation of RFC 2233 (MIB-II) for ATM subinterfaces.

- [\*ATM SNMP Trap and OAM Enhancements\*](#)

Provides the ability to send Simple Network Management Protocol (SNMP) notifications for ATM permanent virtual circuits (PVCs) when the PVC state changes and when Operation, Administration, and Maintenance (OAM) loopback fails for a PVC.
- [\*ATM VC Class Support\*](#)

Specifies AAL5 and AAL0 encapsulations as part of a virtual circuit (VC) class that you can attach to an interface, subinterface, or VC.
- [\*ATM VP Average Traffic Rate\*](#)

Enables you to display the 5-minute traffic rates on virtual path (VP) counters.
- [\*AToM Tunnel Selection\*](#)

Allows you to specify the path that traffic uses.
- [\*BGP Support for 4-Byte ASN\*](#)

Introduces support for 4-byte autonomous system numbers.
- [\*Call Home\*](#)

Provides e-mail-based and web-based notification of critical system events.
- [\*Cisco IOS Command References\*](#)

Provide detailed information on platform-independent Cisco IOS commands; specifically, on command syntax, defaults, command modes, command history, usage guidelines, and examples.
- [\*Cisco IOS Configuration Guides\*](#)

Contain Cisco IOS features that are shared across releases and platforms and grouped by technology areas.
- [\*Control Plane Policing\*](#)

Allows you to configure a quality of service (QoS) filter that manages the traffic flow of control plane packets to protect the control plane of Cisco IOS routers and switches against reconnaissance and denial-of-service (DoS) attacks.
- [\*DHCP Client\*](#)

Provides the flexibility to include various configuration options for the Dynamic Host Configuration Protocol (DHCP) client.
- [\*DHCP Relay MPLS VPN Support\*](#)

Enables a network administrator to conserve address space by allowing overlapping addresses.
- [\*Enhanced ATM VC Configuration and Management\*](#)

Simplifies and expedites permanent virtual circuit (PVC) and switched virtual circuit (SVC) configurations and improves the management of PVC and SVC integrity.
- [\*EVC MIB\*](#)

Describes a Cisco proprietary Simple Network Management Protocol (SNMP) MIB for managing an Ethernet infrastructure.
- [\*IPv6 Bidirectional PIM\*](#)

Allows multicast routers to keep reduced state information as compared with unidirectional shared trees in protocol independent multicast-spare mode (PIM-SM).

- *IPv6 Hop-by-Hop Rate Limiter*  
Provides protection from denial of service (DoS) attacks by allowing you to rate limit IPv6 hop-by-hop (HBH) packets.
- *IPv6 Multicast: Address Family Support for Multiprotocol BGP*  
Provides multicast Border Gateway Protocol (BGP) extensions for IPv6 and supports the same features and functionality as IPv4 BGP.
- *IPv6 Source Specific Multicast (SSM) Mapping*  
Supports both static and dynamic domain name system (DNS) mapping for multicast listener discovery (MLD) version 1 receivers.
- *ISSU-ATM*  
Introduces ATM support for In Service Software Upgrade (ISSU).
- *ISSU—AToM ATM Attachment Circuit*  
Allows Any Transport over Multiprotocol Label Switching (MPLS) (AToM) to use In Service Software Upgrade (ISSU) on ATM attachment circuits.
- *ISSU—MPLS Traffic Engineering (TE): Path Protection*  
Provides an end-to-end failure recovery mechanism (that is, full path protection) for Multiprotocol Label Switching (MPLS) TE tunnels and introduces support for In Service Software Upgrade (ISSU).
- *Low Latency Queueing with Priority Percentage Support*  
Allows you to configure bandwidth as a percentage within low latency queueing (LLQ).
- *LSP Ping for FEC 129 (via VCCV)—RFC 4379*  
Provides extensions to RFC 4379 to support FEC129 types for virtual private LAN service (VPLS) deployments with Border Gateway Protocol (BGP)-based autodiscovery enabled.
- *L2VPN PW Redundancy—ATM Attachment Circuits*  
Introduces support for ATM attachment circuits on L2VPN pseudowires.
- *MPLS EM—LSP Ping/Trace for LDP and RSVP IPv4 FECs*  
Provides troubleshooting capabilities for Label Distribution Protocol (LDP) and Resource Reservation Protocol (RSVP)-enabled label switched paths (LSPs).
- *MPLS EM—MPLS LSP Multipath Tree Trace*  
Provides the means to discover all the possible paths of a label switched path (LSP) between an egress and ingress router.
- *MPLS LSP Ping/Traceroute and AToM VCCV*  
Provides diagnosis of network problems related to Multiprotocol Label Switching (MPLS) forwarding.
- *MPLS Pseudowire Status Signaling*  
Enables you to configure the router so that it can send pseudowire status to a peer router, even when the attachment circuit is down.
- *MPLS TE—Link and Node Protection, with RSVP Hellos Support (with Fast Tunnel Interface Down Detection)*  
Describes Fast Reroute (FRR) enhancements, including backup tunnel support, backup bandwidth protection, fast tunnel interface down detection, and Resource Reservation Protocol (RSVP) hellos.

- *MPLS TE—Node Protection Desired Bit*  
Provides the ability to signal node protection.
- *MPLS Traffic Engineering and Enhancements*  
Enables Multiprotocol Label Switching (MPLS) backbone to replicate and expand upon the traffic engineering capabilities of Layer 2 ATM and Frame Relay networks.
- *MPLS Traffic Engineering: BFD-Triggered Fast Reroute*  
Allows you to obtain link and node protection by using the Bidirectional Forwarding Detection (BFD) protocol to provide fast forwarding path failure detection times for all media types, encapsulations, topologies, and routing protocols.
- *MPLS Traffic Engineering—Configurable Path Calculation Metric for Tunnels*  
Enables you to control the metric used in path calculation for traffic engineering (TE) tunnels on a per-tunnel basis.
- *MPLS Traffic Engineering—Fast Reroute Link and Node Protection*  
Supports link protection (backup tunnels that bypass only a single link of the label switched path (LSP), node protection (backup tunnels that bypass next-hop nodes along LSPs), and the following Fast Reroute (FRR) features: backup tunnel support, backup bandwidth protection, and Resource Reservation Protocol (RSVP) hellos.
- *MPLS Traffic Engineering—Fast Reroute MIB*  
Enables Simple Network Management Protocol (SNMP)-based network management of the Multiprotocol Label Switching (MPLS) Fast Reroute (FRR) feature in Cisco IOS software.
- *MPLS Traffic Engineering Forwarding Adjacency*  
Allows a network administrator to handle a traffic engineering (TE) label switched path (LSP) tunnel as a link in an Interior Gateway Protocol (IGP) network based on the Shortest Path First (SPF) algorithm.
- *MPLS Traffic Engineering—LSP Attributes*  
Describes how to configure label switched path (LSP) attributes for path options associated with Multiprotocol Label Switching (MPLS) traffic engineering (TE) tunnels.
- *MPLS Traffic Engineering MIB*  
Enables Simple Network Management Protocol (SNMP) agent support in Cisco IOS software for Multiprotocol Label Switching (MPLS) traffic engineering (TE) management, as implemented in the MPLS TE MIB.
- *MPLS Traffic Engineering—Policy Routing onto MPLS TE Tunnels*  
Enables policy-based routing (PBR) to forward packets into a traffic engineering (TE) tunnel.
- *MPLS Traffic Engineering—RSVP Graceful Restart*  
Allows a neighboring Route Processor (RP) to recover from disruption in control plane service (specifically, the Label Distribution Protocol (LDP) component) without losing its Multiprotocol Label Switching (MPLS) forwarding state.
- *MPLS Traffic Engineering—RSVP Hello State Timer*  
Detects when a neighbor is down and quickly triggers a state timeout, which frees resources such as bandwidth that can be reused by other label switched paths (LSPs).

- *MPLS Traffic Engineering—Verbatim Path Support*  
Allows network nodes to support Resource Reservation Protocol (RSVP) extensions without supporting Interior Gateway Protocol (IGP) extensions for traffic engineering (TE), thereby bypassing the topology database verification process.
- *MPLS Traffic Engineering (TE)—IP Explicit Address Exclusion*  
Provides a means to exclude a link or node from the path for Multiprotocol Label Switching (MPLS) traffic engineering (TE) label switched paths (LSPs).
- *MPLS Traffic Engineering (TE)—Path Protection*  
Provides an end-to-end failure recovery mechanism (that is, full path protection) for Multiprotocol Label Switching (MPLS) traffic engineering (TE) tunnels.
- *MPLS VPN Carrier Supporting Carrier Using LDP and IGP*  
Enables you to set up and create a Multiprotocol Label Switching (MPLS) Virtual Private Network (VPN) carrier supporting carrier (CSC) network that uses Label Distribution Protocol (LDP) to transport MPLS labels and an Interior Gateway Protocol (IGP) to transport routes.
- *MPLS VPN Carrier Supporting Carrier with BGP*  
Enables you to create a Multiprotocol Label Switching (MPLS) Virtual Private Network (VPN) carrier supporting carrier (CSC) network that uses Border Gateway Protocol (BGP) to transport routes and MPLS labels.
- *MPLS VPN—eBGP Multipath Support for CSC and InterAS MPLS VPNs*  
Allows you to configure external Border Gateway Protocol (eBGP) multipath with IPv4+ labels.
- *MPLS VPN—Explicit Null Label Support with BGP IPv4 Label Session*  
Provides a method to advertise explicit null in a Border Gateway Protocol (BGP) label session for a carrier supporting carrier (CSC) customer edge (CE) router.
- *MPLS VPN—Load Balancing Support for Inter-AS and CSC VPNs*  
Allows Multiprotocol Label Switching (MPLS) Virtual Private Network (VPNs) Inter-AS and MPLS VPN carrier supporting carrier (CSC) networks to load share traffic between adjacent label switched routers (LSRs) that are connected by multiple links.
- *Multi-VRF Selection Using Policy-Based Routing (PBR)*  
Allows a specified interface on a provider edge (PE) router to route packets to Virtual Private Networks (VPNs) based on packet length or match criteria defined in an IP access list.
- *NM-1FE-SMF*  
Describes how to connect Cisco Ethernet, Fast Ethernet, and Token Ring network modules to your network.
- *NSF/SSO—AToM ATM Attachment Circuit*  
Allows Any Transport over Multiprotocol Label Switching (MPLS) (AToM) to use nonstop forwarding (NSF) and stateful switchover (SSO) on ATM attachment circuits.
- *NSF/SSO—MPLS TE and RSVP Graceful Restart*  
Allows a Route Processor (RP) to recover from disruption in control plane service without losing its Multiprotocol Label Switching (MPLS) forwarding state and includes support for nonstop forwarding (NSF) and stateful switchover (SSO).

- *NSF/SSO—MPLS Traffic Engineering (TE)—Path Protection*  
Provides an end-to-end failure recovery mechanism (that is, full path protection) for Multiprotocol Label Switching (MPLS) traffic engineering (TE) tunnels and includes support for nonstop forwarding (NSF) and stateful switchover (SSO).
- *PPP-Max-Payload and IWF PPPoE Tag Support*  
Enables the PPP over Ethernet (PPPoE) component to process the PPP-Max-Payload and Interworking Functionality (IWF) PPPoE tags in the PPPoE discovery frame.
- *PPPoE Agent Remote-ID and DSL Line Characteristics Enhancement*  
Provides a method by which the digital subscriber line access multiplexer (DSLAM) sends the DSL remote-ID tag in the discovery phase as an identifier for the authentication, authorization, and accounting (AAA) access request on an Ethernet interface, thereby simulating ATM-based broadband access, but using cost-effective Ethernet instead.
- *PPPoE Circuit-ID Tag Processing*  
Provides a way to extract a circuit-ID tag from the digital subscriber line (DSL) as an identifier for the authentication, authorization, and accounting (AAA) access request on an Ethernet interface, thereby simulating ATM-based broadband access, but using cost-effective Ethernet instead.
- *PPPoE Relay*  
Enables an L2TP access concentrator (LAC) to relay active discovery and service selection functionality for PPP over Ethernet (PPPoE), over a Layer 2 Tunneling Protocol (L2TP) control channel, to an L2TP network server (LNS) or tunnel switch (multihop node).
- *PPPoE Session Limiting on Inner QinQ VLAN*  
Allows a service provider to limit each customer to one PPP over Ethernet (PPPoE) client in use by providing the ability to limit the number of PPPoE over QinQ (IEEE 802.1Q VLAN tunnel) sessions based on the inner VLAN ID configured under a subinterface.
- *Pseudowire Emulation Edge-to-Edge MIBs for Ethernet, Frame Relay, and ATM Services*  
Provides Simple Network Management Protocol (SNMP) support within an Any Transport over Multiprotocol Label Switching (AToM) infrastructure emulating Ethernet, Frame Relay, and ATM services over packet switched networks (PSNs).
- *QoS: Match ATM CLP*  
Allows you to classify traffic on the basis of the ATM cell loss priority (CLP) value.
- *QoS on Port-Channel Member-Link*  
Provides support for configuring egress service policies on port-channel member links.
- *Quality of Service: Policies Aggregation*  
Allows you to configure the default traffic classes of different policy maps on the same physical interface as a single traffic class within the modular quality of service (MQC) command-line interface (CLI).
- *RADIUS Attribute 66 (Tunnel-Client-Endpoint) Enhancements*  
Allows the hostname of the network access server (NAS) to be specified—rather than the IP address of the NAS—in RADIUS attribute 66 (Tunnel-Client-Endpoint).
- *RSVP Refresh Reduction and Reliable Messaging*  
Includes refresh reduction, which improves the scalability, latency, and reliability of Resource Reservation Protocol (RSVP) signaling to enhance network performance and message delivery.

- [RSVP—Resource Reservation Protocol](#)  
Describes a network-control protocol that enables Internet applications to obtain differing qualities of service (QoS) for their data flows (RFC 2205).
- [SSO-ATM](#)  
Introduces ATM support for stateful switchover (SSO).

## Network Management

### New Documents

- [End of Life Distributed Director](#)  
Describes the removal of support for Distributed Director features and commands in Cisco IOS Release 12.4(24)T and later releases.
- [Web Services Management Agent](#)  
Defines a mechanism through which a network device can be managed, configuration data information can be retrieved, and new configuration data can be uploaded and manipulated.

## Optical Networking

The terms “Unidirectional Path Switched Ring” and “UPSR” may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, and “Path Protected Mesh Network” and “PPMN,” refer generally to Cisco’s path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

## Physical Security

None at this time.

## Routers

### New Documents

- [7600-ES+ITU-2TG and 7600-ES+ITU-4TG](#)  
Introduces support for the 7600-ES+ITU-2TG and 7600-ES+ITU-4TG. Cisco 7600 Ethernet services line cards.
- [Cisco ASR 1000 Series Aggregation Services Routers](#)  
Describes the installation, replacement, or upgrading of field-replaceable units (FRUs), and troubleshooting of the Cisco ASR 1000 series routers.

- [Integrated Session Border Controller](#)

Describes the Integrated Session Border Controller functions, features, restrictions, and configuration tasks for the Cisco ASR 1000 Series Aggregation Services Routers.

## Revised Documents

- [Cisco 800 Broadband Series Routers](#)

Lists documents that provide a variety of information about the Cisco 800 Series routers.

- [Cisco 3800 Series Hardware Installation Guide](#)

Describes hardware installation procedures for the Cisco 3800 series integrated services routers and includes the following two new SKUs: C3825-NOVPN and C3845-NOVPN

- [HWIC-1FE and HWIC-2FE](#)

Describes how to connect Cisco 1- and 2-port Fast Ethernet high-speed WAN interface cards (HWICs) to your network.

- [HWIC-1GE-SFP](#)

Describes how to connect Cisco Gigabit Ethernet high-speed WAN interface cards (HWICs) to your network.

# Security

## New Documents

- [IKE Responder-Only Mode](#)

Provides support for controlling the initiation of Internet Key Exchange (IKE) negotiation and rekeying.

## Revised Documents

- [AutoSecure Manageability](#)

Uses a single command-line interface (CLI) to disable common IP services that can be exploited for network attacks and enables IP services and features that can aid in the defense of a network when under attack.

- [Explicit Passive Mode CLI Support](#)

Allows you to configure a group member so that it is in passive mode permanently.

- [GET VPN Phase 1.2](#)

Provides support for time-based antireplay on the Cisco vendor specific attribute (VSA) high-performance crypto engine.

- [Group Encrypted Transport VPN \(GET VPN\)](#)

Describes a set of features that are necessary to secure IP multicast group traffic or unicast traffic over a private WAN that originates on or flows through a Cisco IOS device.

## Service Exchange

None at this time.

## Storage Networking

None at this time.

## Switches

### New Documents

- [Cisco ME 3400E Ethernet Access Switch Command Reference, Cisco IOS Release 12.2\(44\)EY](#)  
Describes the commands that have been specifically created or changed for use with the switch.
- [Cisco ME 3400E Ethernet Access Switch Getting Started Guide](#)  
Describes how to install and configure the switch.
- [Cisco ME 3400E Ethernet Access Switch Hardware Installation Guide](#)  
Describes the hardware features of the switch. It describes the physical and performance characteristics of the switch, explains how to install it, and provides troubleshooting information.
- [Cisco ME 3400E Ethernet Access Switch Power-Supply Module Quick Start Guide](#)  
Describes the high-level steps for installing the AC- and DC-power modules for the Cisco ME 3400E-24TS-M and the Cisco ME 3400EG-12CS-M switches.
- [Cisco ME 3400E Ethernet Access Switch Software Configuration Guide, Cisco IOS Release 12.2\(44\)EY](#)  
Describes how to configure the switch by using the command-line interface and how to configure the software features.
- [Regulatory Compliance and Safety Information for the Cisco ME 3400E Ethernet Access Switch](#)  
Provides regulatory compliance and safety information for the Cisco ME 3400E Ethernet access switches.
- [Release Notes for the Cisco ME 3400E Ethernet Access Switch, Cisco IOS Release 12.2\(44\)EY](#)  
Describes the system requirements, limitations, and caveats for the Cisco ME 3400E Ethernet access switches.

### Revised Documents

- [Cisco ME 3400E, ME 3400, and ME 2400 Ethernet Access Switch System Message Guide](#)  
Describes the Cisco ME 3400E, ME 3400, and ME 2400 switch-specific system messages.

## TelePresence

None at this time.

# Universal Gateways and Access Servers

None at this time.

## Video, Cable, and Content Delivery

None at this time.

## Voice and Unified Communications

### New Documents

- [Communications Manager Express 7.1/Survivable Remote Site Telephony 7.1](#)  
Describes new features introduced in Cisco Unified Survivable Remote Site Telephony 7.1 (Cisco Unified SRST).
- [SIP Registration Message](#)  
Provides the ability to send a Session Initiation Protocol (SIP) registration message from the Cisco Unified Border Element using the **credentials** command.
- [SIP—RSVP Preconditions for Video Gateway](#)  
Expands existing support for Session Initiation Protocol (SIP) video calls on H.324-SIP video gateways to include H.320-SIP video gateways.
- [Voice Gateway Enhancements](#)  
Describe several enhancements for Cisco VGD 1T3, Cisco AS5350XM, and AS5400XM voice gateways.

### Revised Documents

- [Release Notes for Cisco IP Communicator Release 7.0\(x\)](#)  
Describes new features, documentation updates, and known and resolved caveats for Cisco IP Communicator Release 7.0 (x).
- [Release Notes for Cisco Unified Personal Communicator Release 7.0\(x\)](#)  
Describes new features, documentation updates, and known and resolved problems for Cisco Unified Personal Communicator Release 7.0 (x).
- [User Guide for Cisco Unified Personal Communicator for Macintosh, Release 7.0](#)  
Provides task-based information about how to use Cisco Unified Personal Communicator Release 7.0 on a Macintosh platform.
- [User Guide for Cisco Unified Personal Communicator for Windows, Release 7.0](#)  
Provides task-based information about how to use Cisco Unified Personal Communicator Release 7.0 on a Windows platform.

# Wireless

## New Documents

- [Cisco MWR 2941-DC Mobile Wireless Edge Router Hardware Installation Guide](#)  
Describes how to install the Cisco MWR 2941-DC router hardware.
- [Cisco MWR 2941-DC Mobile Wireless Edge Router Software Configuration Guide](#)  
Describes how to install and configure the Cisco MWR 2941-DC router software.
- [Regulatory Compliance and Safety Information for the Cisco MWR 2941-DC Mobile Wireless Edge Router](#)  
Provides regulatory compliance and safety information for the Cisco MWR 2941-DC router.
- [Release Notes for Cisco MWR 2941-DC Mobile Wireless Edge Router for Cisco IOS Release 12.4\(19\)MR2](#)  
Describes the new features, restrictions, and caveats for the Cisco MWR 2941-DC router.

## Revised Documents

- [Mobile IP—Mobile Router Multipath Support](#)  
Provides support for mobile router multipath registration based on roaming interface priority, application routing based on link or path type, and multiple registrations based on roaming interface priority.

## Creating Bookmarks to Cisco.com Pages

When you log in using your Cisco.com user ID, you can use the My Cisco tool to save links and documents, and then access the links later from any Cisco.com page. The tool is available on most Cisco.com pages. View the User Guide for help: <http://www.cisco.com/web/help/mycisco.html>.

## Support from Cisco

Select from Cisco support opportunities at:

<http://www.cisco.com/en/US/support/index.html>

Uses for this website include:

- Obtaining technical assistance
- Downloading software
- Reporting security vulnerabilities or obtaining assistance with security involving Cisco products
- Accessing tools and resources
  - Sign up for product alerts
  - Register for field notices
  - Search for known issues using the Bug Toolkit
- Participating in technology discussions with the Networking Professionals (NetPro) community

- Accessing training resources
- Interactively identifying and troubleshooting common hardware, configuration, and performance issues using the TAC Case Collection tool

## Submitting a Service Request

Open a service request online at:

<http://www.cisco.com/techsupport/servicerequest>

View a list of Cisco worldwide contacts at:

[http://www.cisco.com/en/US/support/tsd\\_cisco\\_worldwide\\_contacts.html](http://www.cisco.com/en/US/support/tsd_cisco_worldwide_contacts.html)

## Obtaining Additional Information

Information about Cisco products, services, technologies, and networking solutions is available from various online sources.

- Sign up for Cisco e-mail newsletters and other communications at the Cisco Subscription Center at:  
<http://www.cisco.com/offer/subscribe>
- The Cisco Support website provides online resources, including documentation and tools for resolving technical issues with Cisco products. To receive security and technical information about your products, you can subscribe to the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds. Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.  
<http://www.cisco.com/techsupport>
- Order the *Cisco Product Quick Reference Guide*, a portable, easy-to-use reference tool that provides an overview of Cisco products and solutions for each part of your business. Go to:  
<http://www.cisco.com/go/guide>
- Visit the Cisco Services website to learn the latest technical, advanced, and remote services available to increase the operational reliability of your network. Go to:  
<http://www.cisco.com/go/services>
- Visit Cisco Marketplace, the company store, for Cisco collateral, logo merchandise, Cisco Press books, and software at:  
<http://www.cisco.com/go/marketplace/>
- Obtain general networking, training, and certification titles from Cisco Press publishers at:  
<http://www.ciscopress.com>
- Read the Internet Protocol Journal, a quarterly journal published by Cisco for engineering professionals who design, develop, and operate internets and intranets. Go to:  
<http://www.cisco.com/ipj>
- *What's New in Cisco Product Documentation* (this document) is an online publication that provides information about the latest documentation releases for Cisco products. Updated monthly, this online publication is organized by product category:  
<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

- Access international Cisco websites at:  
[http://www.cisco.com/public/countries\\_languages.shtml](http://www.cisco.com/public/countries_languages.shtml)

CCDE, CCSI, CCENT, Cisco Eos, Cisco HealthPresence, the Cisco logo, Cisco Lumin, Cisco Nexus, Cisco Nurse Connect, Cisco Stackpower, Cisco StadiumVision, Cisco TelePresence, Cisco WebEx, DCE, and Welcome to the Human Network are trademarks; Changing the Way We Work, Live, Play, and Learn and Cisco Store are service marks; and Access Registrar, Aironet, AsyncOS, Bringing the Meeting To You, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, CCVP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Collaboration Without Limitation, EtherFast, EtherSwitch, Event Center, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, iQuick Study, IronPort, the IronPort logo, LightStream, Linksys, MediaTone, MeetingPlace, MeetingPlace Chime Sound, MGX, Networkers, Networking Academy, Network Registrar, PCNow, PIX, PowerPanels, ProConnect, ScriptShare, SenderBase, SMARTnet, Spectrum Expert, StackWise, The Fastest Way to Increase Your Internet Quotient, TransPath, WebEx, and the WebEx logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0903R)

Any Internet Protocol (IP) addresses used in this document are not intended to be actual addresses. Any examples, command display output, and figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses in illustrative content is unintentional and coincidental.

© 2009 Cisco Systems, Inc. All rights reserved.