

Standards Supported in Cisco IOS and IOS-XE Software

PB2239

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This Product Bulletin lists the major industry standards supported by Cisco IOS[®] and IOS-XE Software Releases 3.3S, 12.2S, 12.4, 15.1S, and 15.1M/T.

Given the evolving nature of standardization, this document may not reflect specific drafts, revisions of particular standards, or all the standards that are supported in Cisco IOS Software beyond this document's publication date.

Additional Information

Cisco IOS Software

http://www.cisco.com/go/ios/

IETF RFC Index

http://www.ietf.org/iesg/1rfc_index.txt

Table 1. IETF RFCs supported in Cisco IOS and IOS-XE Software Releases 3.3S, 12.4, 12.2SR, and 15.1:

RFC	RFC Remarks	RFC Title	Cisco Supports?
Draft	draft-ietf-grow-diverse-bgp- path-dist-03	Distribution of diverse BGP paths.	Yes
Draft	draft-ietf-idr-rfc4760bis-01	Multiprotocol Extensions for BGP-4	Yes
Draft	draft-ietf-idr-best-external-04	BGP best external	Yes
Draft	draft-ietf-idr-bgp-multisession- .06	BGP multisession	Yes
6085		Address Mapping of IPv6 Multicast Packets on Ethernet	Yes
6037	draft-rosen-vpn-mcast	Cisco Systems' Solution for Multicast in MPLS/BGP IP VPNs	Yes
5969		IPv6 Rapid Deployment on IPv4 Infrastructures (6RD)	Yes
5905		NTPv4	Yes
5846		Binding Revocation Support in IP Mobility	Yes
5845		GRE Key Option for Proxy Mobile IPv6	Yes
5844		IPv4 Support for Proxy Mobile IPv6	Yes
5838	Was draft-ietf-ospf-af-alt	Support of Address Families in OSPFv3 (IPv4 + IPv6)	Yes
5820		Extensions to OSPF to Support Mobile Ad Hoc Networking	Yes
5641	Updates RFC3931, RFC4349, RFC4454, RFC4591, RFC4719	Layer 2 Tunneling Protocol Version 3 (L2TPv3) Extended Circuit Status Values	Yes
5613	Obsoletes 4813	OSPF Link-Local Signaling	Yes
5496		The Reverse Path Forwarding (RPF) Vector TLV	Yes
5492		Capabilities Advertisement with BGP-4	Yes
5481		One-way delay, one-way jitter, one-way packet loss, Inter Packet Delay Variation	Yes
5444	MANET Mobile Ad-hoc Networks for OSPFv3 - (IETF manet status pages)	Generalized Mobile Ad Hoc Network (MANET) Packet/Message Forma (for OSPFv3)	Yes (T Train only for Government customers through GGSG)
5430		DHCPv6 Bulk Leasequery	Partial Support

RFC	RFC Remarks	RFC Title	Cisco Supports?
5398	Informational	Autonomous System (AS) Number Reservation for Documentation Use	Yes
5396		Textual Representation of Autonomous System (AS) Numbers	Yes
5357		TWAMP	Partial Support
5340	(Obsoletes RFC2740)	OSPF for IPV6	Yes
5332		MPLS Multicast Encapsulations	Partially Supported
5310		IS-IS Generic Cryptographic Authentication	Not supported
5309		Point-to-Point Operation over LAN in Link State Routing Protocols	Yes
5308		Routing IPv6 with IS-IS	Yes
5307		IS-IS Extensions in Support of Generalized Multi-Protocol Label Switching (GMPLS)	Yes
5306		Restart Signaling for IS-IS	Yes
5305	Obsoletes RFC 3784, Updated by RFC 5307	IS-IS Extensions for Traffic Engineering	Obsoleted or Updated by RFC Cisco IOS Supports
5304		IS-IS Cryptographic Authentication	Yes
5303	Obsoletes RFC 3373	Three-Way Handshake for IS-IS Point-to-Point Adjacencies	Yes
5302	Obsoletes RFC 2966	Domain-Wide Prefix Distribution with Two-Level IS-IS	Yes
5301	Obsoletes RFC 2763	Dynamic Hostname Exchange Mechanism for IS-IS	Yes
5292		Address-Prefix-Based Outbound Route Filter for BGP-4	Yes
5291		Outbound Route Filtering Capability for BGP-4	Yes
5286		Basic Specification for IP Fast Reroute: Loop-Free Alternates (LFA)-OSFPv2 & ISIS	Yes
5213		Proxy Mobile IPv6 (PMIPv6)	Yes
5187		OSPFv3 Graceful Restart	Yes
5176	Obsoletes RFC 3576	Dynamic Authorization Extensions to RADIUS	Partial Support
5130		Dynamic Hostname Exchange Mechanism for IS-IS	Yes
5120		M-ISIS: Multi Topology (MT) Routing in Intermediate System to Intermediate Systems (IS-ISs)	Yes
5095		Deprecation of Type 0 Routing Headers in IPv6	Yes
5072	Obsoletes RFC2472	IP Version 6 over PPP	Yes
5059		Bootstrap Router (BSR) Mechanism for Protocol Independent Multicast (PIM)	Yes
5065		Autonomous System Confederations for BGP	Yes
5029		Definition of an IS-IS Link Attribute Sub-TLV	Yes
5015		Bidirectional Protocol Independent Multicast (BIDIR-PIM)	Yes
5004		Avoid BGP Best Path Transitions from One External to Another	Yes
4971		Intermediate System to Intermediate System (IS-IS) Extensions for Advertising Router Information	Yes
4970		Extensions to OSPF for Advertising Optional Router Capabilities	Yes
4928		Avoiding Equal Cost Multipath Treatment in MPLS Networks	Yes
4893		BGP Support for Four-Octet AS Number Space	Yes
4884	Partial support	Extended ICMP to Support Multi-Part Messages	Yes
4862	Obsoletes RFC 2462	IPv6 Stateless Address Autoconfiguration	Yes
4861		Neighbor Discovery for IP version 6 (IPv6)	Yes
4818		RADIUS Delegated-IPv6-Prefix Attribute	Yes
4817		Encapsulation of MPLS over Layer 2 Tunneling Protocol Version 3	Yes
4812		OSPF Restart Signaling	Yes
4811		OSPF Out-of-Band Link State Database (LSDB) Resynchronization	Yes
4798		Connecting IPv6 Islands over IPv4 MPLS Using IPv6 Provider Edge Routers (6PE)	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
4797		Use of Provider Edge to Provider Edge (PE-PE) Generic Routing Encapsulation (GRE) or IP in BGP/MPLS IP Virtual Private Networks	Yes
4786		Operation of Anycast Services	Yes
4781		Graceful Restart Mechanism for BGP with MPLS	Yes
4760	Obsoletes RFC2858	Multiprotocol Extensions for BGP-4	Yes
4750	Obsoletes RFC1850	OSPF Version 2 Management Information Base	Yes
4724		Graceful Restart Mechanism for BGP	Yes
4684		Constrained Route Distribution for Border Gateway Protocol/MultiProtocol Label Switching (BGP/MPLS) Internet Protocol (IP) Virtual Private Networks (VPNs)	Yes
4659		BGP-MPLS IP Virtual Private Network (VPN) Extension for IPv6 VPN	Yes
4649		Dynamic Host Configuration Protocol for IPv6 (DHCPv6) Relay Agent Remote-ID Option	Yes
4604	Updates RFC3810	Using Internet Group Management Protocol Version 3 (IGMPv3) and Multicast Listener Discovery Protocol Version 2 (MLDv2) for Source-Specific Multicast	Yes
4601	Updates RFC2362	Protocol Independent Multicast-Sparse Mode (PIM-SM): Protocol Specification (Revised)	Yes
4577		OSPF as the Provider/Customer Edge Protocol for BGP/MPLS IP Virtual Private Networks (VPNs)	Yes
4576		Using a Link State Advertisement (LSA) Options Bit to Prevent Looping in BGP/MPLS IP Virtual Private Networks (VPNs)	Yes
4561		Definition of a Record Route Object (RRO) Node-Id sub-Objects	Yes
4552		Authentication/Confidentiality for OSPFv3	Yes
4461		Signaling Requirements for Point to Multipoint Traffic engineered MPLS LSP	Yes
4456	Obsoletes RFC2796	BGP Route Reflection: An Alternative to Full Mesh Internal BGP (IBGP)	Yes
4451	Informational	BGP MULTI_EXIT_DISC (MED) Considerations	Yes
4444		Management Information Base for Intermediate System to Intermediate System (IS-IS)	Partial Support
4443		Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification	Yes
4383	Best Current Practice	BGP Communities for Data Collection	Yes
4382		MPLS/BGP Layer 3 Virtual Private Network (VPN) Management Information Base	Yes
4381	Best Current Practice	Analyses of the Security of BGP/MPLS IP VPNs	Yes
4379		Detecting Multi-Protocol Label Switched (MPLS) Data Plane Failures	Partially Supported
4378		A Framework for Multi-Protocol Label Switching (MPLS) Operations and Management (OAM)	Yes
4377		Operations and Management (OAM) Requirements for Multi-Protocol Label Switched (MPLS) Networks	Yes
4368		Multiprotocol Label Switching (MPLS) Label-Controlled ATM and Frame-Relay Management Interface Definition	Yes
4364	Obsoletes RFC2547	BGP/MPLS IP Virtual Private Networks (VPNs)	Yes
4360		BGP Extended Communities Attribute	Yes
4302		IP Authentication Header	Yes
4293		Management Information Base for the Internet Protocol (IP)	Partially Supported
4292		IP Forwarding Table MIB	Partial Support
4291		IP Version 6 Addressing Architecture	Yes
4285		Authentication Protocol for Mobile IPv6	Yes
4283		Mobile Node Identifier Option for Mobile IPv6	Yes
4277	Informational	Experience with the BGP-4 Protocol	Yes
4276	Informational	BGP-4 Implementation Report	Yes
4275	Informational	BGP-4 MIB Implementation Survey	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
4274	Informational	BGP-4 Protocol Analysis	Yes
4273	Obsoletes RFC1657	Definitions of Managed Objects for BGP-4	Partially Supported
4271	Obsoletes RFC1771	A Border Gateway Protocol (BGP-4)	Yes
4264	Informational	BGP Wedgies	Yes
4244		An Extension to the Session Initiation Protocol (SIP) for Request History Information	Yes
4242		Information Refresh Time Option for Dynamic Host Configuration Protocol for IPv6 (DHCPv6)	
4223	Informational	Reclassification of RFC 1863 to Historic	Obsoleted or Updated by RFC Cisco IOS Supports
4221		Multiprotocol Label Switching (MPLS) Management Overview	Yes
4221		Multiprotocol Label Switching (MPLS) Management Overview	Yes
4220		Traffic Engineering Link Management Information Base	Partially Supported
4214		Intra-Site Automatic Tunnel Addressing Protocol (ISATAP)	Yes
4206		LSP Hierarchy with Generalized MPLS TE	Yes
4193		Unique Local IPv6 Unicast Addresses	Yes
4191		Default Router Preferences and More-Specific Routes	Yes
4182	Updates RFC 3032	Removing a Restriction on the use of MPLS Explicit NULL	Yes
4113	Updates RFC 2013	Management Information Base for the User Datagram Protocol (UDP)	Yes
4090		Fast Reroute Extensions to RSVP-TE for LSP Tunnels	Partially Supported (Detour not supported)
4087		Tunnel MIB	Yes
4075		Simple Network Time Protocol (SNTP) Configuration Option for DHCPv6	Yes
4031		Service requirements for Layer 3 Provider Provisioned Virtual Private Networks (VPNs)	Yes
4026		Provider Provisioned VPN terminology	Yes
4023		Encapsulating MPLS in IP or Generic Routing Encapsulation (GRE)	Partially Supported (GRE Only)
4022	Updates RFC 2012	Management Information Base for the Transmission Control Protocol (TCP)	Yes
4008		Definitions of Managed Objects for Network Address Translators (NAT)	Partial Support
4007		IPv6 Scoped Address Architecture	Yes
3993		Subscriber-ID Suboption for the Dynamic Host Configuration Protocol (DHCP) Relay Agent Option	Yes
3988		Maximum Transmission Unit Signaling Extensions for the Label Distribution Protocol (LDP)	Yes
3985		PWE3 (Pseudo-Wire Emulation Edge-to-Edge) Architecture	Yes
3973		Protocol Independent Multicast-Dense Mode (PIM-DM): Protocol Specification (Revised)	Yes
3972		Cryptographically Generated Addresses (CGA)	Yes
3971		SEcure Neighbor Discovery (SEND)	Yes
3963		Network Mobility (NEMO) Basic Support Protocol	Yes
3956	Updates RFC3306	Embedding the Rendezvous Point (RP) Address in an IPv6 Multicast Address	Yes
3954		Cisco Systems NetFlow Services Export Version 9	Yes
3946		Generalized Multi-Protocol Label Switching (GMPLS) Extensions for Synchronous Optical Network (SONET) and Synchronous Digital Hierarchy (SDH) Control	Yes
3945		Generalized Multi-Protocol Label Switching (GMPLS) Architecture	Yes
3942	Updates RFC2132	Reclassifying Dynamic Host Configuration Protocol version 4 (DHCPv4) Options	Partially Supported
3917		Requirements for IP Flow Information Export (IPFIX)	Yes
3916		Requirements for Pseudo-Wire Emulation Edge-to-Edge (PWE3)	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
3910		The SPIRITS (Services in PSTN requesting Internet Services) Protocol	Yes
3906		Calculating Interior Gateway Protocol (IGP) Routes Over Traffic Engineering Tunnels	Yes
3898		Network Information Service (NIS) Configuration Options for Dynamic Host Configuration Protocol for IPv6 (DHCPv6)	Yes
3883	Updates 1793	Detecting Inactive Neighbors over OSPF Demand Circuits (DC)	Yes
3879		Deprecating Site Local Addresses	Yes
3847		Restart Signaling for Intermediate System to Intermediate System (IS-IS)	Yes
3826		The Advanced Encryption Standard (AES) Cipher Algorithm in the SNMP User- based Security Model	Yes
3815		Definitions of Managed Objects for the Multiprotocol Label Switching (MPLS), Label Distribution Protocol (LDP)	Yes
3814		Multiprotocol Label Switching (MPLS) Forwarding Equivalence Class To Next Hop Label Forwarding Entry (FEC-To-NHLFE) Management Information Base (MIB)	Yes
3813		Multiprotocol Label Switching (MPLS) Label Switching Router (LSR) Management Information Base (MIB)	Yes
3812		Multiprotocol Label Switching (MPLS) Traffic Engineering (TE) Management Information Base (MIB)	Yes
3811		Definitions of Textual Conventions (TCs) for Multiprotocol Label Switching (MPLS) Management	Yes
3810	Updates RFC2710	Multicast Listener Discovery Version 2 (MLDv2) for IPv6	Yes
3809		Generic Requirements for Provider Provisioned Virtual Private Networks (VPNs)	Yes
3787		Recommendations for Interoperable IP Networks using Intermediate System to Intermediate System (IS-IS).	Yes
3786	Obsoleted by RFC 5311	Extending the Number of Intermediate System to Intermediate System (IS-IS) Link State PDU (LSP) Fragments Beyond the 256 Limit	Obsoleted or Updated by RFC Cisco IOS Supports
3784	Obsoleted by RFC 5305, Updated by RFC 4205	IS-IS extensions for Traffic Engineering (TE)	Obsoleted or Updated by RFC Cisco IOS Supports
3784		IS-IS extensions for Traffic Engineering (TE)	Yes
3775		Mobility Support in IPv6	Partially Supported (no IPsec authentication, no multicast)
3768	Obsoletes RFC2338	Virtual Router Redundancy Protocol (VRRP)	Yes
3758		Stream Control Transmission Protocol (SCTP) Partial Reliability Extension	Yes
3756		IPv6 Neighbor Discovery (ND) Trust Models and Threats	
3749		Transport Layer Security Protocol Compression Methods	Yes
3748	Obsoletes RFC2284	Extensible Authentication Protocol (EAP)	Yes. Does not support OTP
3737		IANA Guidelines for the Registry of Remote Monitoring (RMON) MIB (Management Information Base) modules	Yes
3736		Stateless Dynamic Host Configuration Protocol (DHCP) Service for IPv6	Yes
3719		Recommendations for Interoperable Networks using Intermediate System to Intermediate System (IS-IS)	Yes
3697		IPv6 Flow Label Specification	Yes
3670		Information Model for Describing Network Device QoS (Quality of Service) Datapath Mechanisms	Yes
3666		Session Initiation Protocol (SIP) Public Switched Telephone Network (PSTN) Call Flows	Yes (supports all call flows mentioned with exception that PSTN signaling is ISDN and not ISUP. On SIP leg, call flows are supported)

RFC	RFC Remarks	RFC Title	Cisco Supports?
3646		DNS Configuration options for Dynamic Host Configuration Protocol for IPv6 (DHCPv6)	Yes
3644		Policy Quality of Service (QoS) Information Model	Yes
3633		IPv6 Prefix Options for Dynamic Host Configuration Protocol (DHCP) version 6	Yes
3630	Updates RFC2370	Traffic Engineering (TE) Extensions to OSPF Version 2	Yes
3623		Graceful OSPF Restart	Yes
3612		Applicability Statement for Restart Mechanisms for the Label Distribution Protocol (LDP)	Yes
3609		Tracing Requirements for Generic Tunnels	Partially Supported
3596	Obsoletes RFC3152, RFC1886	DNS Extensions to Support IP Version 6 (IPv6)	Yes
3590	Updates RFC2710	Source Address Selection for the Multicast Listener Discovery (MLD) Protocol	Yes
3587	Obsoletes RFC2374	IPv6 Global Unicast Address Format	Yes
3584	Obsoletes RFC2576	Coexistence between Version 1, Version 2, and Version 3 of the Internet-standard Network Management Framework	Yes
3567	Obsoleted by RFC 5304	Intermediate System to Intermediate System (IS-IS) Cryptographic Authentication	Obsoleted or Updated by RFC Cisco IOS Supports
3562	Informational	Key Management Considerations for the TCP MD5 Signature Option	Yes
3547		The Group Domain of Interpretation	
3546		Transport Layer Security (TLS) Extensions	Yes
3527		Link Selection sub-option for the Relay Agent Information Option for DHCPv4	Yes
3519		Mobile IP Traversal of Network Address Translation (NAT) Devices	Yes
3513	Obsoletes RFC2373	Internet Protocol Version 6 (IPv6) Addressing Architecture	Yes
3509		Alternative Implementations of OSPF Area Border Routers	Yes
3495		Dynamic Host Configuration Protocol (DHCP) Option for CableLabs Client Configuration	Partially Supported (on server via generic option configuration)
3484		Default Address Selection for Internet Protocol version 6 (IPv6)	Yes
3478		Graceful Restart Mechanism for Label Distribution Protocol (LDP)	Yes
3477		Signaling Unnumbered Links in Resource Reservation Protocol—Traffic Engineering (RSVP-TE)	Yes
3473	Updated by RFC4003	Generalized Multi-Protocol Label Switching (GMPLS) Signaling Resource Reservation Protocol-Traffic Engineering (RSVP-TE) Extensions	Yes
3471		Generalized Multi-Protocol Label Switching (GMPLS) Signaling Functional Description	Yes
3469		Framework for MPLS-based Recovery	Yes
3443	Updates RFC3032	Time To Live (TTL) Processing in Multi-Protocol Label Switching (MPLS) Networks	Partially Supported
3435	Updated by RFC3661	Media Gateway Control Protocol (MGCP)	Yes
3418	Obsoletes RFC1907	Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)	Yes
3417	Obsoletes RFC1906	Transport Mappings for the Simple Network Management Protocol (SNMP)	Yes
3416	Obsoletes RFC1905	Version 2 of the Protocol Operations for the Simple Network Management Protocol (SNMP).	Yes
3414		User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)	Yes
3413	Obsoletes RFC2573	Simple Network Management Protocol (SNMP) Applications	Yes
3412	Obsoletes RFC2572	Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)	Yes
3411	Obsoletes RFC2571	An Architecture for Describing Simple Network Management Protocol (SNMP) Management Frameworks	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
3392	Obsoletes RFC2236	Capabilities Advertisement with BGP-4	Obsoleted or Updated by RFC Cisco IOS Supports
3376	Obsoletes RFC2236	Internet Group Management Protocol (IGMP), Version 3	Yes
3373	Obsoleted by RFC 5303	Three-Way Handshake for Intermediate System to Intermediate System (IS-IS) Point-to-Point Adjacencies	Obsoleted or Updated by RFC Cisco IOS Supports
3359	Informational	Reserved Type, Length and Value (TLV) Codepoints in Intermediate System to Intermediate System	Yes
3358		Optional Checksums in Intermediate System to Intermediate System (ISIS)	Yes
3353		Framework for IP Multicast in MPLS	Yes
3345	Informational	Border Gateway Protocol (BGP) Persistent Route Oscillation Condition	Yes
3344	Obsoletes RFC3220	IP Mobility Support for IPv4	Yes
3319		Dynamic Host Configuration Protocol (DHCPv6) Options for Session Initiation Protocol (SIP) Servers	Yes
3315		Dynamic Host Configuration Protocol for IPv6 (DHCPv6)	Yes
3312		Integration of Resource Management and Session Initiation Protocol (SIP	Yes
3309	Updates RFC2960	Stream Control Transmission Protocol (SCTP) Checksum Change	Yes
3306	Updated by RFC3956	Unicast-Prefix-based IPv6 Multicast Addresses	Obsoleted or Updated by RFC Cisco IOS Supports
3289		Management Information Base for the Differentiated Services Architecture	Yes
3288		Using the Simple Object Access Protocol (SOAP) in Blocks Extensible Exchange Protocol (BEEP)	Yes
3277		Intermediate System to Intermediate System (IS-IS) Transient Blackhole Avoidance	Yes
3272		Overview and Principles of Internet Traffic Engineering (TE)	Yes
3270		Multi-Protocol Label Switching (MPLS) Support of Differentiated Services (Diffserv)	Yes
3268		Advanced Encryption Standard (AES) Ciphersuites for Transport Layer Security (TLS).	Yes
3261	Obsoletes RFC2543, Updated by RFC3265, RFC3853	SIP: Session Initiation Protocol	Yes
3260	Updates RFC2474, RFC2475, RFC2597	New Terminology and Clarifications for Diffserv (Differentiated Services)	Yes
3246	Obsoletes RFC2598	An Expedited Forwarding (EF) PHB (Per-Hop Behavior)	Yes
3220	Obsoletes RFC2002, obsoleted by RFC3344	IP Mobility Support for IPv4	Yes
3215		LDP (Label Distribution Protocol) State Machine	Yes
3210		Applicability Statement for Extensions to RSVP (Resource Reservation Protocol) for LSP (Label Switched Path)—Tunnels	Yes
3209	Updated by RFC3936	RSVP-TE (Resource Reservation Protocol—Traffic Engineering): Extensions to RSVP for LSP (Label Switched Path) Tunnels	Yes
3180	Obsoletes RFC2770	GLOP Addressing in 233/8	Yes
3168	Obsoletes RFC2481, updates RFC2474, RFC2401, RFC0793	The Addition of Explicit Congestion Notification (ECN) to IP	Yes
3162		RADIUS and IPv6	Yes
3152	Obsoleted by RFC3596, updates RFC2874, RFC2772, RFC2766, RFC2553, RFC1886, also BCP0049	Delegation of IP6.ARPA (IPv6 Address and Routing Parameters Area)	Yes
3147		Generic Routing Encapsulation (GRE) over CLNS Networks	Yes
3115	Obsoletes RFC3025	Mobile IP Vendor/Organization-Specific Extensions	Yes
3107		Carrying Label Information in BGP-4	Yes
3101	Obsoletes RFC1587	The OSPF Not-So-Stubby Area (NSSA) Option	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
3097	Updates RFC2747	RSVP (Resource Reservation Protocol) Cryptographic Authentication—Updated Message Type Value	Yes
3081		Mapping the BEEP (Blocks Extensible Exchange Protocol) Core onto TCP	Yes
3080		The Blocks Extensible Exchange Protocol (BEEP) Core	Yes
3068		An Anycast Prefix for 6to4 Relay Routers	Yes
3065	Obsoletes RFC1965	Autonomous System Confederations for BGP	Yes
3057	Updated by RFC3807	ISDN Q.921-User Adaptation Layer	Yes
3056		Connection of IPv6 Domains via IPv4 Clouds	Yes
3046		DHCP Relay Agent Information Option	Yes
3041		Privacy Extensions for Stateless Address Autoconfiguration in IPv6	Yes
3038		VCID Notification over ATM link for LDP (Label Distribution Protocol)	Yes
3037		LDP (Label Distribution Protocol) Applicability	Yes
3036		LDP (Label Distribution Protocol) Specification	Yes
3035		MPLS using LDP (Label Distribution Protocol) and ATM VC Switching	Yes
3032	Updated by RFC3443	MPLS Label Stack Encoding	Yes
3031		Multiprotocol Label Switching (MPLS) Architecture	Yes
3025	Obsoleted by RFC3115	Mobile IP Vendor/Organization-Specific Extensions	Yes
3024	Obsoletes RFC2344	Reverse Tunneling for Mobile IP, revised	Yes
3022	Obsoletes RFC163	Traditional IP Network Address Translator (Traditional NAT)	Yes
3012		Mobile IPv4 Challenge/Response Extensions	Yes
2973	Informational	IS-IS Mesh Groups	Yes
2966	Obsoleted by RFC 5302	Domain-wide Prefix Distribution with Two-Level IS-IS	Obsoleted or Updated by RFC Cisco IOS Supports
2961		RSVP (Resource Reservation Protocol) Refresh Overhead Reduction Extensions	Yes
2960	Updated by RFC3309	Stream Control Transmission Protocol (SCTP)	Yes
2918		Route Refresh Capability for BGP-4	Yes
2915	Obsoleted by RFC3401, RFC3402, RFC3403, RFC3404	The Naming Authority Pointer (NAPTR) DNS Resource Record	Yes
2893	Obsoletes RFC1933	Transition Mechanisms for IPv6 Hosts and Routers	Yes
2878	Obsoletes RFC1638, obsoleted by RFC3518	PPP Bridging Control Protocol (BCP)	Yes
2874	Updates RFC1886, updated by RFC3152, RFC3226, RFC3363, RFC3364	DNS Extensions to Support IPv6 Address Aggregation and Renumbering	Obsoleted or Updated by RFC Cisco IOS Supports
2872		Application and Sub Application Identity Policy Element for Use with RSVP	Yes
2858	Obsoletes RFC2283	Multiprotocol Extensions for BGP-4	Yes
2842	Obsoleted by RFC3392	Capabilities Advertisement with BGP-4	Yes
2833		RTP (Real-Time Protocol) Payload for DTMF Digits, Telephony Tones and Telephony Signals	Yes
2818		HTTP Over TLS	Yes
2817	Updates RFC2616	Upgrading to TLS Within HTTP/1.1	Yes
2796	Updates RFC1966	BGP Route Reflection—An Alternative to Full Mesh IBGP	Yes
2794	Updates RFC2290	Mobile IP Network Access Identifier Extension for IPv4	Yes
2787		Definitions of Managed Objects for the Virtual Router Redundancy Protocol (VRRP)	Yes
2782	Obsoletes RFC2052	A DNS RR (DNS Resource Record) for specifying the location of services (DNS SRV) Domain Name System Server	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
2772	Obsoletes RFC2546, updated by RFC3152	6Bone Backbone Routing Guidelines	Obsoleted or Updated by RFC Cisco IOS Supports
2770	Obsoleted by RFC3180	GLOP Addressing in 233/8	Obsoleted or Updated by RFC Cisco IOS Supports
2766	Updated by RFC3152	Network Address Translation—Protocol Translation (NAT-PT)	Yes
2765		Stateless IP/ICMP Translation Algorithm (SIIT)	Yes
2750	Updates RFC2205	RSVP (Resource Reservation Protocol) Extensions for Policy Control	Yes
2749		COPS usage for RSVP (Resource Reservation Protocol)	Yes
2747	Updated by RFC3097	RSVP (Resource Reservation Protocol) Cryptographic Authentication	Yes
2745		RSVP (Resource Reservation Protocol) Diagnostic Messages	Yes
2740		OSPF for IPv6	Yes
2737	Obsoletes RFC2037	Entity MIB (Management Information Base) (Version 2)	Yes
2712		Addition of Kerberos Cipher Suites to Transport Layer Security (TLS)	Yes
2711		IPv6 Router Alert Option	Yes
2710	Updated by RFC3590, RFC3810	Multicast Listener Discovery (MLD) for IPv6	Yes
2705	Obsoleted by RFC3435, updated by RFC3660	Media Gateway Control Protocol (MGCP) Version 1.0	Yes
2702		Requirements for Traffic Engineering (TE) Over MPLS	Yes
2698		A Two Rate Three Color Marker	Yes
2697		A Single Rate Three Color Marker	Yes
2686		The Multi-Class Extension to Multi-Link PPP	Yes
2684	Obsoletes RFC1483	Multiprotocol Encapsulation over ATM Adaptation Layer 5	Yes
2665	Obsoletes RFC2358, obsoleted by RFC3635	Definitions of Managed Objects for the Ethernet-like Interface Types	Yes
2661		Layer Two Tunneling Protocol "L2TP"	Yes
2617	Obsoletes RFC2069	HTTP Authentication: Basic and Digest Access Authentication	Yes
2616	Obsoletes RFC2068, updated by RFC2817	Hypertext Transfer Protocol—HTTP/1.1	Yes
2598	Obsoleted by RFC3246	An Expedited Forwarding (EF) PHB (Per-Hop Behavior)	Yes
2597	Updated by RFC3260	Assured Forwarding PHB (Per-Hop Behavior) Group	Yes
2590		Transmission of IPv6 Packets over Frame Relay Networks Specification	Yes
2580	Obsoletes RFC1904	Conformance Statements for SMIv2 (Structure of Management Information version 2)	Yes
2575	Obsoletes RFC2275, obsoleted by RFC3415	View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)	Yes
2574	Obsoletes RFC2274, obsoleted by RFC3414	User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3).	Yes
2573	Obsoletes RFC2273, obsoleted by RFC3413	SNMP Applications	Yes
2572	Obsoletes RFC2272, obsoleted by RFC3412	Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)	Yes
2571	Obsoletes RFC2271, obsoleted by RFC3411	An Architecture for Describing SNMP Management Frameworks	Yes
2560		X.509 Internet Public Key Infrastructure (PKI) Online Certificate Status Protocol- OCSP	Yes
2553	Obsoletes RFC2133, obsoleted by RFC3493, updated by RFC3152	Basic Socket Interface Extensions for IPv6	Obsoleted or Updated by RFC Cisco IOS Supports
2547	Obsoleted by 4364	BGP/MPLS VPNs	Yes
2545		Use of BGP-4 Multiprotocol Extensions for IPv6 Inter-Domain Routing	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
2543	Obsoleted by RFC3261, RFC3262, RFC3263, RFC3264, RFC3265	SIP: Session Initiation Protocol	Yes
2529		Transmission of IPv6 over IPv4 Domains without Explicit Tunnels	Yes
2509	Obsoleted by RFC3544	IP Header Compression over PPP	Yes
2508		Compressing IP/UDP/RTP Headers for Low-Speed Serial Links	Yes
2507		IP Header Compression	Yes
2492		IPv6 over ATM Networks	Yes
2481	Obsoleted by RFC3168	A Proposal to add Explicit Congestion Notification (ECN) to IP	Obsoleted or Updated by RFC Cisco IOS Supports
2475	Updated by RFC3260	An Architecture for Differentiated Service	Yes
2474	Obsoletes RFC1455, RFC1349, Updated by RFC3168, RFC3260	Definition of the Differentiated Services (Diffserv) Field (DS Field) in the IPv4 and IPv6 Headers	Yes
2473		Generic Packet Tunneling in IPv6 Specification	Yes
2472	Obsoletes RFC2023	IP Version 6 (IPv6) over PPP	Yes
2467	Obsoletes RFC2019	Transmission of IPv6 Packets over FDDI Networks	Yes
2464	Obsoletes RFC1972	Transmission of IPv6 Packets over Ethernet Networks	Yes
2463	Obsoletes RFC1885	Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification	Yes
2462	Obsoletes RFC1971	IPv6 Stateless Address Autoconfiguration	Yes
2461	Obsoletes RFC1970	Neighbor Discovery for IP Version 6 (IPv6)	Yes
2460		Internet Protocol, Version 6 (IPv6) Specification	Yes
2453	Obsoletes RFC1723	RIP Version 2	Yes
2451		The ESP CBC-Mode Cipher Algorithms	Yes
2439		BGP Route Flap Damping	Yes
2433		Microsoft PPP CHAP (Challenge Handshake Authentication Protocol) Extensions	Yes
2427	Obsoletes RFC1490, RFC1294	Multiprotocol Interconnect over Frame Relay	Yes
2410		The NULL Encryption Algorithm and Its Use With IPsec	Yes
2409		The Internet Key Exchange (IKE)	Yes
2408		Internet Security Association and Key Management Protocol (ISAKMP)	Yes
2407		The Internet IP Security Domain of Interpretation for ISAKMP	Yes
2406	Obsoletes RFC1827	IP Encapsulating Security Payload (ESP)	Yes
2405		The ESP DES-CBC Cipher Algorithm With Explicit IV	Yes
2404		The Use of HMAC-SHA-1-96 within ESP and AH	Yes
2403		The Use of HMAC-MD5-96 within ESP and AH	Obsoleted or Updated by RFC Cisco IOS Supports
2402	Obsoletes RFC1826	IP Authentication Header	Yes
2401	Obsoletes RFC1825, updated by RFC3168	Security Architecture for the Internet Protocol (IP)	Yes
2393	Obsoleted by RFC3173	IP Payload Compression Protocol (IPComp)	Yes
2390	Obsoletes RFC1293	Inverse Address Resolution Protocol	Yes
2385		Protection of BGP Sessions via the TCP MD5 Signature Option	Yes
2375		IPv6 Multicast Address Assignments	Yes
2374	Obsoletes RFC2073, obsoleted by RFC3587	An IPv6 Aggregatable Global Unicast Address Format	Yes
2373	Obsoletes RFC1884, obsoleted by RFC3513	IP Version 6 (IPv6) Addressing Architecture	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
2370	Updated by RFC3630, also RFC2328	The OSPF Opaque LSA Option	Yes
2365		Administratively Scoped IP Multicast	Yes
2364		PPP over ATM AAL5 (Asynchronous Transfer Mode Adaptive Layer 5)	Yes
2362	Updated by RFC 4601, obsoletes RFC2117	Protocol Independent Multicast-Sparse Mode (PIM-SM): Protocol Specification	Yes
2358	Obsoletes RFC1650, obsoleted by RFC2665	Definitions of Managed Objects for the Ethernet-like Interface Types	Obsoleted or Updated by RFC Cisco IOS Supports
2344	Obsoleted by RFC3024	Reverse Tunneling for Mobile IP	Obsoleted or Updated by RFC Cisco IOS Supports
2341		Cisco Layer Two Forwarding (Protocol) "L2F"	Yes
2338	Obsoleted by RFC3768	Virtual Router Redundancy Protocol (VRRP)	Yes
2337		Intra-LIS (Intra-Logical IP Subnet) IP multicast among routers over ATM using Sparse Mode PIM (Protocol Independent Multicast)	Yes
2332		NBMA Next Hop Resolution Protocol (NHRP)	Yes
2328	Obsoletes RFC2178	OSPF Version 2	Yes
2327	Updated by RFC3266	SDP: Session Description Protocol	Yes
2326		Real Time Streaming Protocol (RTSP)	Yes
2290	Updates RFC2002, updated by RFC2794	Mobile-IPv4 Configuration Option for PPP IPCP (Internet Protocol Control Protocol)	Obsoleted or Updated by RFC Cisco IOS Supports
2283	Obsoleted by RFC2858	Multiprotocol Extensions for BGP-4	Yes
2281		Cisco Hot Standby Router Protocol (HSRP)	Yes
2275	Obsoletes RFC2265, obsoleted by RFC2575	View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)	Yes
2274	Obsoletes RFC2264, obsoleted by RFC2574	User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3).	Yes
2273	Obsoletes RFC2263, obsoleted by RFC2573	SNMPv3 Applications	Yes
2272	Obsoletes RFC2262, obsoleted by RFC2572	Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)	Yes
2271	Obsoletes RFC2261, obsoleted by RFC2571	An Architecture for Describing SNMP Management Frameworks	Yes
2270	Informational	Using a Dedicated AS for Sites Homed to a Single Provider	Yes
2265	Obsoleted by RFC2275	View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)	Obsoleted or Updated by RFC Cisco IOS Supports
2264	Obsoleted by RFC2274	User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3).	Obsoleted or Updated by RFC Cisco IOS Supports
2263	Obsoleted by RFC2273	SNMPv3 Applications	Obsoleted or Updated by RFC Cisco IOS Supports
2262	Obsoleted by RFC2272	Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)	Obsoleted or Updated by RFC Cisco IOS Supports
2261	Obsoleted by RFC2271	An Architecture for Describing SNMP Management Frameworks	Obsoleted or Updated by RFC Cisco IOS Supports
2246	Updated by RFC3546	The TLS Protocol Version 1.0	Yes
2236	Obsoleted by RFC3376, updates RFC1112	Internet Group Management Protocol (IGMP), Version 2	Yes
2225	Obsoletes RFC1626, RFC1577	Classical IP and ARP (Address Resolution Protocol) over ATM	Yes
2222	Updated by RFC2444	Simple Authentication and Security Layer (SASL)	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
2216		Network Element Service Specification Template (RFC 2216)	Yes
2215		General Characterization Parameters for Integrated Service Network Elements	Yes
2211		Controlled load spec	Yes
2210		Use of RSVP (Resource Reservation Protocol) in Integrated Services	Yes
2209		RSVP (Resource Reservation Protocol) Message Processing Rules	Yes
2206		RSVP (Resource Reservation Protocol) Management Information Base (MIB) using SMIv2 (Structure of Management Information version 2)	Yes
2205	Updated by RFC2750, RFC3936	Resource Reservation Protocol (RSVP)—Version 1 Functional Specification	Yes
2178	Obsoletes RFC1583, obsoleted by RFC2328	OSPF Version 2	Yes
2166		(Advanced Peer-to-Peer Networking) APPN Implementer's Workshop (AIW) Closed Pages Document Data-Link Switching (DLSw) v2.0 Enhancements	Yes
2136	Updates RFC1035, updated by RFC3007, RFC4033, RFC4034, RFC4035	Dynamic Updates in the Domain Name System (DNS UPDATE)	Yes
2131	Obsoletes RFC1541, updated by RFC3396	Dynamic Host Configuration Protocol (DHCP)	Yes
2127		ISDN Management Information Base (MIB) using SMIv2 (Structure of Management Information version 2)	Yes
2125		The PPP Bandwidth Allocation Protocol (BAP) / The PPP Bandwidth Allocation Control Protocol (BACP)	Yes
2118		Microsoft Point-to-Point Compression (MPPC) Protocol	Yes
2117	Obsoleted by RFC2362	Protocol Independent Multicast-Sparse Mode (PIM-SM): Protocol Specification	Obsoleted or Updated by RFC Cisco IOS Supports
2115	Obsoletes RFC1315	Management Information Base (MIB) for Frame Relay DTEs Using SMIv2 (Structure of Management Information version 2)	Yes
2091		Triggered Extensions to RIP to Support Demand Circuits	Yes
2080		RIPng for IPv6	Yes
2073	Obsoleted by RFC2374	An IPv6 Provider-Based Unicast Address Format	Obsoleted or Updated by RFC Cisco IOS Supports
2069	Obsoleted by RFC2617	An Extension to HTTP: Digest Access Authentication	Obsoleted or Updated by RFC Cisco IOS Supports
2068	Obsoleted by RFC2616	Hypertext Transfer Protocol—HTTP/1.1	Obsoleted or Updated by RFC Cisco IOS Supports
2052	Obsoleted by RFC2782	A DNS RR (DNS Resource Record) for specifying the location of services Domain Name System Server (DNS SRV)	Obsoleted or Updated by RFC Cisco IOS Supports
2037	Obsoleted by RFC2737	Entity MIB (Management Information Base) using SMIv2 (Structure of Management Information version 2)	Yes
2024		Definitions of Managed Objects for Data Link Switching using SMIv2 (Structure of Management Information version 2)	Yes
2018	Obsoletes RFC1072	TCP Selective Acknowledgement Options	Yes
2013	Obsoleted by RFC4113	Management Information Base for the User Datagram Protocol (UDP)	Yes
2012	Obsoleted by RFC4022, updates RFC1213	SNMPv2 Management Information Base (MIB) for the Transmission Control Protocol (TCP) using SMIv2 (Structure of Management Information version 2)	Yes
2006		The Definitions of Managed Objects for IP Mobility Support using SMIv2 (Structure of Management Information version 2)	Yes
2003		IP Encapsulation within IP	Yes
2002	Obsoleted by RFC3220, updated by RFC2290	IP Mobility Support	Yes
1998	Informational	An Application of the BGP Community Attribute in Multi-home Routing	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
1997		BGP Communities Attribute	Yes
1994	Obsoletes RFC1334, updated by RFC2484	PPP Challenge Handshake Authentication Protocol (CHAP)	Yes
1990	Obsoletes RFC1717	The PPP Multilink Protocol (MP)	Yes
1989	Obsoletes RFC1333	PPP Link Quality Monitoring	Yes
1982	Updates RFC1034, RFC1035	Serial Number Arithmetic	Yes
1981		Path MTU (Maximum Transmission Unit) Discovery for IP version 6 (IPv6)	Yes
1974		PPP Stac LZS Compression Protocol	Yes
1973		PPP in Frame Relay	Yes
1972	Obsoleted by RFC2464	A Method for the Transmission of IPv6 Packets over Ethernet Networks	Obsoleted or Updated by RFC Cisco IOS Supports
1971	Obsoleted by RFC2462	IPv6 Stateless Address Autoconfiguration	Obsoleted or Updated by RFC Cisco IOS Supports
1970	Obsoleted by RFC2461	Neighbor Discovery for IP Version 6 (IPv6)	Obsoleted or Updated by RFC Cisco IOS Supports
1967		PPP LZS-DCP Compression Protocol (LZS-DCP)	Yes
1966	Updated by RFC2796	BGP Route Reflection An alternative to full mesh IBGP	Yes
1965	Obsoleted by RFC3065	Autonomous System Confederations for BGP	Yes
1962	Updated by RFC2153	The PPP Compression Control Protocol (CCP)	Yes
1933	Obsoleted by RFC2893	Transition Mechanisms for IPv6 Hosts and Routers	Obsoleted or Updated by RFC Cisco IOS Supports
1918	Obsoletes RFC1627, RFC1597 Also BCP0005	Address Allocation for Private Internets	Yes
1907	Obsoletes RFC1450, obsoleted by RFC3418	Management Information Base (MIB) for Version 2 of the Simple Network Management Protocol (SNMPv2)	Yes
1906	Obsoletes RFC1449, obsoleted by RFC3417	Transport Mappings for Version 2 of the Simple Network Management Protocol (SNMPv2)	Yes
1905	Obsoletes RFC1448, obsoleted by RFC3416	Protocol Operations for Version 2 of the Simple Network Management Protocol (SNMPv2)	Yes
1904	Obsoletes RFC1444, obsoleted by RFC2580	Conformance Statements for Version 2 of the Simple Network Management Protocol (SNMPv2)	Yes
1889	Obsoleted by RFC3550	RTP (Real-Time Protocol): A Transport Protocol for Real-Time Applications. Audio- Video Transport Working Group	Yes
1886	Obsoleted by RFC3596, updated by RFC2874, RFC3152	DNS Extensions to support IP version 6 (IPv6)	Yes
1885	Obsoleted by RFC2463	Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6)	Obsoleted or Updated by RFC Cisco IOS Supports
1884	Obsoleted by RFC2373	IP Version 6 (IPv6) Addressing Architecture	Obsoleted or Updated by RFC Cisco IOS Supports
1877		PPP Internet Protocol Control Protocol (IPCP) Extensions for Name Server Addresses	Yes
1867	Obsoleted by RFC2854	Form-based File Upload in HTML	Yes
1850	Obsoletes RFC1253	OSPF Version 2 Management Information Base (MIB)	Yes
1829		The ESP (Encapsulating Security Payload) DES-CBC (Data Encryption Standard-Cipher Block Chaining) Transform	Yes
1828		IP Authentication using Keyed MD5	Yes
1827	Obsoleted by RFC2406	IP Encapsulating Security Payload (ESP)	Yes
1826	Obsoleted by RFC2402	IP Authentication Header	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
1825	Obsoleted by RFC2401	Security Architecture for the Internet Protocol (IP)	Obsoleted or Updated by RFC Cisco IOS Supports
1812		Requirements for IP Version 4 Routers	Yes
1795	Obsoletes RFC1434	Data Link Switching: Switch-to-Switch Protocol AIW DLSw RIG (Advanced Peer-to- Peer Networking (APPN) Implementers Workshop Data Link Switching Related Interest Group): DLSw Closed Pages, DLSw Standard Version 1.0	Yes
1793	Updated by RFC3883	Extending OSPF to Support Demand Circuits	Yes
1774	Informational	BGP-4 Protocol Analysis	Yes
1773	Informational	Experience with the BGP-4 protocol	Yes
1772	Obsoletes RFC1655	Application of the Border Gateway Protocol in the Internet	Yes
1771	Obsoletes RFC1654	A Border Gateway Protocol 4 (BGP-4)	Yes
1765		OSPF Database Overflow	Yes
1757	Obsoletes RFC1271, obsoleted by RFC2819	Remote Network Monitoring Management Information Base (MIB)	Yes
1755		ATM Signaling Support for IP over ATM	Yes
1745		BGP4/IDRP for IPOSPF Interaction	Yes
1724	Obsoletes RFC1389	RIP Version 2 MIB (Management Information Base) Extension	Yes
1723	Obsoletes RFC1388, obsoleted by RFC2453, updates RFC1058	RIP Version 2—Carrying Additional Information	Yes
1722		RIP Version 2 Protocol Applicability Statement	Yes
1717	Obsoleted by RFC1990	The PPP Multilink Protocol (MP)	Yes
1706	Obsoletes RFC1637	DNS NSAP (Network Service Access Point) Resource Records	Yes
1702		Generic Routing Encapsulation (GRE) over IPv4 networks	Yes
1701		Generic Routing Encapsulation (GRE)	Yes
1695	Obsoleted by RFC2515	Definitions of Managed Objects for ATM Management Version 8.0 using SMIv2 (Structure of Management Information version 2)	Yes
1663		PPP Reliable Transmission	Yes
1662	Obsoletes RFC1549	PPP in HDLC-like Framing	Yes
1661	Obsoletes RFC1548, updated by RFC2153	The Point-to-Point Protocol (PPP)	Yes
1659	Obsoletes RFC1317	Definitions of Managed Objects for RS-232-like Hardware Devices using SMIv2 (Structure of Management Information version 2)	Yes
1657		Definitions of Managed Objects for the Fourth Version of the Border Gateway Protocol (BGP-4) using SMIv2 (Structure of Management Information version 2)	Yes
1656	Obsoleted by RFC 1773	BGP-4 Protocol Document Roadmap and Implementation Experience	Obsoleted by RFC 4271
1655	Obsoleted by RFC 1772	Application of the Border Gateway Protocol in the Internet	Obsoleted or Updated by RFC Cisco IOS Supports
1654	Obsoleted by RFC1771	1771 A Border Gateway Protocol 4 (BGP-4)	
1650	Obsoleted by RFC2358	Definitions of Managed Objects for the Ethernet-like Interface Types using SMIv2 (Structure of Management Information version 2)	Obsoleted or Updated by RFC Cisco IOS Supports
1647	Obsoleted by RFC2355	TN3270 Enhancements	Yes
1646		TN3270 Extensions for LUname and Printer Selection	Yes
1638	Obsoletes RFC1220, obsoleted by RFC2878	PPP Bridging Control Protocol (BCP)	Yes
1637	Obsoletes RFC1348, obsoleted by RFC1706	DNS NSAP (Network Service Access Point) Resource Records	Obsoleted or Updated by RFC Cisco IOS Supports

RFC	RFC Remarks	RFC Title	Cisco Supports?
1634	Obsoletes RFC1551, RFC1362	Novell IPX Over Various WAN Media (IPXWAN)	Yes
1631	Obsoleted by RFC3022	The IP Network Address Translator (NAT)	Yes
1627	Obsoleted by RFC1918	Network 10 Considered Harmful (Some Practices Shouldn't be Codified)	Obsoleted or Updated by RFC Cisco IOS Supports
1626	Obsoleted by RFC2225	Default IP MTU (Maximum Transmission Unit) for use over ATM AAL5 (Asynchronous Transfer Mode Adaptive Layer 5)	Obsoleted or Updated by RFC Cisco IOS Supports
1619	Obsoleted by RFC2615	PPP over SONET/SDH (Synchronous Optical Network/Synchronous Digital Hierarchy)	Yes
1618		PPP over ISDN	Yes
1613		Cisco Systems X.25 over TCP (XOT)	Yes
1597	Obsoleted by RFC1918	Address Allocation for Private Internets	Obsoleted or Updated by RFC Cisco IOS Supports
1595	Obsoleted by RFC2558	Definitions of Managed Objects for the SONET/SDH (Synchronous Optical Network/Synchronous Digital Hierarchy) Interface Type	Yes
1593		SNA APPN (Systems Network Architecture Advanced Peer-to-Peer Networking) Node MIB (Management Information Base)	Yes
1587	Obsoleted by RFC3101	The OSPF NSSA (Not-So-Stubby Area) Option	Yes
1583	Obsoletes RFC1247, obsoleted by RFC2178	OSPF Version 2	Yes
1577	Obsoleted by RFC2225	Classical IP and ARP (Address Resolution Protocol) over ATM	Yes
1576		TN3270 Current Practices	Yes
1573		Evolution of the Interfaces Group of MIB-II (Management Information Base-II)	Yes
1570	Updates RFC1548, updated by RFC2484	PPP LCP (Point-to-Point Protocol Link Control Protocol) Extensions	Yes
1559	Obsoletes RFC1289	DECnet Phase IV MIB (Management Information Base) Extensions	Yes
1553		Compressing IPX Headers Over WAN Media (CIPX)	Yes
1552		The PPP Internetworking Packet Exchange Control Protocol (IPXCP)	Yes
1551	Obsoleted by RFC1634	Novell IPX Over Various WAN Media (IPXWAN)	Obsoleted or Updated by RFC Cisco IOS Supports
1549	Obsoleted by RFC1662	PPP in HDLC Framing	Yes
1548	Obsoletes RFC1331, obsoleted by RFC1661 Updated by RFC1570	The Point-to-Point Protocol (PPP)	Yes
1542	Obsoletes RFC1532, updates RFC0951	Clarifications and Extensions for the Bootstrap Protocol	Yes
1541	Obsoletes RFC1531, obsoleted by RFC2131	Dynamic Host Configuration Protocol (DHCP)	Obsoleted or Updated by RFC Cisco IOS Supports
1534		Interoperation Between DHCP and BOOTP (Bootstrap Protocol)	Yes
1532	Obsoleted by RFC1542, updates RFC0951	Clarifications and Extensions for the Bootstrap Protocol	Obsoleted or Updated by RFC Cisco IOS Supports
1519	Obsoletes RFC1338	Classless Inter-Domain Routing (CIDR): an Address Assignment and Aggregation Strategy	Yes
1512	Updates RFC1285	FDDI Management Information Base (MIB)	Yes
1510		The Kerberos Network Authentication Service (V5)	Yes
1497	Obsoletes RFC1395, RFC1084, RFC1048, obsoleted by RFC1533, updates RFC0951	BOOTP (Bootstrap Protocol) Vendor Information Extensions	Yes
1493	Obsoletes RFC1286	Definitions of Managed Objects for Bridges	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
1492		An Access Control Protocol, Sometimes Called TACACS	Yes
1490	Obsoletes RFC1294, obsoleted by RFC2427	Multiprotocol Interconnect over Frame Relay	Obsoleted or Updated by RFC Cisco IOS Supports
1469		IP Multicast over Token-Ring Local Area Networks	Yes
1455	Obsoleted by RFC2474	Physical Link Security Type of Service (TOS)	Obsoleted or Updated by RFC Cisco IOS Supports
1450	Obsoleted by RFC1907	Management Information Base (MIB) for version 2 of the Simple Network Management Protocol (SNMPv2)	Yes
1449	Obsoleted by RFC1906	Transport Mappings for version 2 of the Simple Network Management Protocol (SNMPv2)	Yes
1448	Obsoleted by RFC1905	Protocol Operations for version 2 of the Simple Network Management Protocol (SNMPv2)	Yes
1447		Party MIB (Management Information Base) for version 2 of the Simple Network Management Protocol (SNMPv2)	Yes
1445		Administrative Model for Version 2 of the Simple Network Management Protocol (SNMPv2)	Yes
1444	Obsoleted by RFC1904	Conformance Statements for version 2 of the Simple Network Management Protocol (SNMPv2)	Yes
1434	Obsoleted by RFC1795	Data Link Switching: Switch-to-Switch Protocol	Obsoleted or Updated by RFC Cisco IOS Supports
1413	Obsoletes RFC0931	Identification Protocol	Yes
1407	Obsoletes RFC1233, obsoleted by RFC2496	Definitions of Managed Objects for the DS3/E3 Interface Type	Yes
1406	Obsoletes RFC1232, obsoleted by RFC2495	Definitions of Managed Objects for the DS1 and E1 Interface Types	Yes
1403	Obsoletes RFC1364	BGP OSPF Interaction	Yes
1398	Obsoletes RFC1284, obsoleted by RFC1623	Definitions of Managed Objects for the Ethernet-Like Interface Types	Yes
1397	Historic	Default Route Advertisement In BGP2 and BGP3 Version of The Border Gateway Protocol	No
1395	Obsoletes RFC1084, RFC1048, obsoleted by RFC1497, RFC1533, updates RFC0951	BOOTP (Bootstrap Protocol) Vendor Information Extensions	Yes
1393		Traceroute Using an IP Option	Yes
1390		Transmission of IP and ARP (Address Resolution Protocol) over FDDI Networks	Yes
1389	Obsoleted by RFC1724	RIP Version 2 MIB (Management Information Base) Extensions	Obsoleted or Updated by RFC Cisco IOS Supports
1388	Obsoleted by RFC1723, updates RFC1058	RIP Version 2 Carrying Additional Information	Yes
1382		SNMP MIB (Management Information Base) Extension for the X.25 Packet Layer	Yes
1381		SNMP MIB (Management Information Base) Extension for X.25 LAPB (Link Access Protocol Balanced)	Yes
1378		The PPP AppleTalk Control Protocol (ATCP)	Partial
1377		The PPP OSI Network Layer Control Protocol (OSINLCP)	Yes
1376	Obsoleted by RFC1762	The PPP DECnet Phase IV Control Protocol (DNCP)	Yes
1372	Obsoletes RFC1080	Telnet Remote Flow Control Option	Partial— Implemented with the exception of "restart- any" and "restart-xon" sub-options
1370		Applicability Statement for OSPF	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
1364	Obsoleted by RFC1403	BGP OSPF Interaction	Obsoleted or Updated by RFC Cisco IOS Supports
1362	Obsoleted by RFC1634	Novell IPX over Various WAN Media (IPXWAN)	Yes
1356	Obsoletes RFC0877	Multiprotocol Interconnect on X.25 and ISDN in the Packet Mode	Yes
1350	Obsoletes RFC0783, updated by RFC1782, RFC1783, RFC1784, RFC1785, RFC2347, RFC2348, RFC2349	The TFTP (Trivial File Transfer Protocol) Protocol (Revision 2)	Yes
1349	Obsoleted by RFC2474, updates RFC1248, RFC1247, RFC1195, RFC1123, RFC1122, RFC1060, RFC0791	Type of Service (TOS) in the Internet Protocol (IP) Suite	Yes
1338	Obsoleted by RFC1519	Supernetting: an Address Assignment and Aggregation Strategy	Obsoleted or Updated by RFC Cisco IOS Supports
1334	Obsoleted by RFC1994	PPP Authentication Protocols	Yes
1333	Obsoleted by RFC1989	PPP Link Quality Monitoring	Yes
1332	Obsoletes RFC1172, updated by RFC3241	The PPP Internet Protocol Control Protocol (IPCP)	Yes
1331	Obsoletes RFC1171, RFC1172, obsoleted by RFC1548	The Point-to-Point Protocol (PPP) for the Transmission of Multi-protocol Datagrams over Point-to-Point Links	Yes
1323	Obsoletes RFC1072, RFC1185	TCP Extensions for High Performance	Yes
1321		The MD5 Message-Digest Algorithm	Yes
1317	Obsoleted by RFC1659	Definitions of Managed Objects for RS-232-like Hardware Devices	Yes
1315	Obsoleted by RFC2115	Management Information Base (MIB) for Frame Relay DTEs	Yes
1305	Obsoletes RFC0958, RFC1059, RFC1119	Network Time Protocol (Version 3) Specification, Implementation	Yes
1294	Obsoleted by RFC1490, RFC2427	Multiprotocol Interconnect over Frame Relay	Obsoleted or Updated by RFC Cisco IOS Supports
1293	Obsoleted by RFC2390	Inverse Address Resolution Protocol	Obsoleted or Updated by RFC Cisco IOS Supports
1289	Obsoleted by RFC1559	DECnet Phase IV MIB (Management Information Base) Extensions	Obsoleted or Updated by RFC Cisco IOS Supports
1286	Obsoleted by RFC1493, RFC1525	Definitions of Managed Objects for Bridges	Yes
1285	Updated by RFC1512	FDDI Management Information Base (MIB)	Obsoleted or Updated by RFC Cisco IOS Supports
1284	Obsoleted by RFC1398	Definitions of Managed Objects for the Ethernet-like Interface Types	Obsoleted or Updated by RFC Cisco IOS Supports
1271	Obsoleted by RFC1757, updated by RFC1513	Remote Network Monitoring Management Information Base (MIB)	
1269	Obsoleted by RFC4273	Definitions of Managed Objects for the Border Gateway Protocol: Version 3	No (historical)
1268	Obsoletes RFC1164, obsoleted by RFC1655	Application of the Border Gateway Protocol in the Internet	Yes
1267	Obsoletes RFC1163) historic	Border Gateway Protocol 3 (BGP-3)	No
1266	Informational	Experience with the BGP Protocol	Yes
1265	Informational	BGP Protocol Analysis	Yes
1256		ICMP Router Discovery Messages	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
1253	Obsoletes RFC1252, obsoleted by RFC1850, Also RFC1247, RFC1245, RFC1246	OSPF Version 2 Management Information Base (MIB)	Yes
1252	Obsoletes RFC1248, obsoleted by RFC1253	OSPF Version 2 Management Information Base (MIB)	Obsoleted or Updated by RFC Cisco IOS Supports
1248	Obsoleted by RFC1252, updated by RFC1349	OSPF Version 2 Management Information Base (MIB)	Obsoleted or Updated by RFC Cisco IOS Supports
1247	Obsoletes RFC1131, obsoleted by RFC1583, updated by RFC1349	OSPF Version 2	Obsoleted or Updated by RFC Cisco IOS Supports
1243	Obsoleted by RFC1742	AppleTalk Management Information Base (MIB)	Yes
1236		IP to X.121 address mapping for DDN	Yes
1234		Tunneling IPX traffic through IP networks	Yes
1233	Obsoleted by RFC1407, updated by RFC1239	Definitions of managed objects for the DS3 Interface type	Obsoleted or Updated by RFC Cisco IOS Supports
1232	Obsoleted by RFC1406, updated by RFC1239	Definitions of managed objects for the DS1 Interface type	Obsoleted or Updated by RFC Cisco IOS Supports
1231	Obsoleted by RFC1743, RFC1748, updated by RFC1239	IEEE 802.5 Token Ring MIB (Management Information Base)	Partial
1220	Obsoleted by RFC1638	Point-to-Point Protocol (PPP) extensions for bridging	Yes
1215		Convention for defining traps for use with the SNMP	Yes
1213	Obsoletes RFC1158, updated by RFC2011, RFC2012, RFC2013	tes RFC1158, updated Management Information Base (MIB) for Network Management of TCP/IP-based internets: MIB-II	
1212		Concise MIB (Management Information Base) definitions	Yes
1209		Transmission of IP datagrams over the SMDS (Switched Multimegabit Data Service) Service	Yes
1196	Obsoletes RFC1194, RFC0742, obsoleted by RFC1288	Finger User Information Protocol	Yes
1195	Updated by RFC1349	Use of OSI IS-IS for routing in TCP/IP and dual environments	Yes
1194	Obsoletes RFC0742, obsoleted by RFC1196, RFC1288)	Finger User Information Protocol	Obsoleted or Updated by RFC Cisco IOS Supports
1191	Obsoletes RFC1063	Path MTU (Maximum Transmission Unit) discovery	Yes
1185	Obsoleted by RFC1323	TCP Extension for High-Speed Paths	Obsoleted or Updated by RFC Cisco IOS Supports
1172	Obsoleted by RFC1331, RFC1332	Point-to-Point Protocol (PPP) initial configuration options	Yes
1171	Obsoletes RFC1134, obsoleted by RFC1331	Point-to-Point Protocol (PPP) for the transmission of multi-protocol datagrams over Point-to-Point links	Obsoleted or Updated by RFC Cisco IOS Supports
1164	Obsoleted by RFC1268	Application of the Border Gateway Protocol in the Internet	Obsoleted or Updated by RFC Cisco IOS Supports
1163	Obsoleted by RFC1267	Border Gateway Protocol (BGP)	
1158	Obsoleted by RFC1213	Management Information Base (MIB) for network management of TCP/IP-based internets: MIB-II	Obsoleted or Updated by RFC Cisco IOS Supports
1157	Obsoletes RFC1098	Simple Network Management Protocol (SNMP)	Yes
1155	Obsoletes RFC1065	Structure and Identification of Management Information for TCP/IP-based Internets	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
1144		Compressing TCP/IP headers for low-speed serial links	Yes
1141	Updates RFC1071, updated by RFC1624	Incremental updating of the Internet checksum	Yes
1139	Obsoleted by RFC1574, RFC1575	Echo function for ISO 8473	Yes
1136		Administrative Domains and Routing Domains: A model for routing in the Internet	Yes
1123	Updates RFC0822, updated by RFC1349, RFC2181	Requirements for Internet Hosts—Application and Support	Obsoleted or Updated by RFC Cisco IOS Supports
1122	Updated by RFC1349	Requirements for Internet Hosts—Communication Layers	Yes
1119	Obsoletes RFC0958, RFC1059, obsoleted by RFC1305	Network Time Protocol (version 2) specification and implementation	Obsoleted or Updated by RFC Cisco IOS Supports
1112	Obsoletes RFC0988, RFC1054, updated by RFC2236	Host extensions for IP multicasting	Yes
1108	Obsoletes RFC1038	U.S. Department of Defense (DoD) Security Options for the Internet Protocol (IP)	Yes
1105	Obsoleted by RFC1163	Border Gateway Protocol (BGP)	Obsoleted or Updated by RFC Cisco IOS Supports
1101	Updates RFC1034, RFC1035	DNS encoding of network names and other types	Yes
1098	Obsoletes RFC1067, obsoleted by RFC1157	Simple Network Management Protocol (SNMP)	Obsoleted or Updated by RFC Cisco IOS Supports
1091	Obsoletes RFC0930	Telnet terminal-type option	Yes
1084	Obsoletes RFC1048, obsoleted by RFC1395, RFC1497, RFC1533	BOOTP (Bootstrap Protocol) vendor information extensions	Yes
1080	Obsoleted by RFC1372	Telnet remote flow control option	Yes
1079		Telnet terminal speed option	Yes
1075		Distance Vector Multicast Routing Protocol (DVMRP)	Yes
1072	Obsoleted by RFC1323, RFC2018	TCP extensions for long-delay paths	Obsoleted or Updated by RFC Cisco IOS Supports
1071	Updated by RFC1141	Computing the Internet checksum	Obsoleted or Updated by RFC Cisco IOS Supports
1070		Use of the Internet as a subnetwork for experimentation with the OSI network layer	Yes
1069	Obsoletes RFC0986	Guidelines for the use of Internet-IP addresses in the ISO Connectionless-Mode Network Protocol	Yes
1063	Obsoleted by RFC1191	IP MTU (Maximum Transmission Unit) discovery options	Obsoleted or Updated by RFC Cisco IOS Supports
1060	Obsoletes RFC1010, obsoleted by RFC1340, updated by RFC1349	Assigned numbers	Obsoleted or Updated by RFC Cisco IOS Supports
1059	Obsoletes RFC0958, obsoleted by RFC1119, RFC1305	Network Time Protocol (version 1) specification and implementation	Obsoleted or Updated by RFC Cisco IOS Supports
1058	Updated by RFC1388, RFC1723	Routing Information Protocol (RIP)	Yes
1055		Nonstandard for transmission of IP datagrams over serial lines: SLIP	Yes
1054	Obsoletes RFC0988, obsoleted by RFC1112	Host extensions for IP multicasting	Obsoleted or Updated by RFC Cisco IOS Supports
1048	Obsoleted by RFC1084, RFC1395, RFC1497, RFC1533	BOOTP (Bootstrap Protocol) vendor information extensions	Obsoleted or Updated by RFC Cisco IOS Supports

RFC	RFC Remarks	RFC Title	Cisco Supports?
1042	Obsoletes RFC0948	Standard for the transmission of IP datagrams over IEEE 802 networks	Yes
1038	Obsoleted by RFC1108	Draft revised IP security option	Obsoleted or Updated by RFC Cisco IOS Supports
1035	Obsoletes RFC0973, RFC0882, RFC0883, updated by RFC1101, RFC1183, RFC1348, RFC1876, RFC1982, RFC1995, RFC1996, RFC2065, RFC2136, RFC2181, RFC2137, RFC2308, RFC2535, RFC2845, RFC2425, RFC3658, RFC4033, RFC4034, RFC4035	Domain names—implementation and specification	Yes
1034	Obsoletes RFC0973, RFC0882, RFC0883, updated by RFC1101, RFC1183, RFC1348, RFC1876, RFC1982, RFC2065, RFC2181, RFC2308, RFC2535, RFC4033, RFC4034, RFC4035	Domain names—concepts and facilities	Yes
1027		Using ARP (Address Resolution Protocol) to implement transparent subnet gateways	Yes
995		End System to Intermediate System Routing Exchange Protocol for use in conjunction with ISO 8473. International Organization for Standardization	Yes
994	Obsoletes RFC0926	Poletes RFC0926 Final text of DIS 8473, Protocol for Providing the Connectionless-mode Network Service. International Organization for Standardization	
988	Obsoletes RFC0966, obsoleted by RFC1054, RFC1112	Host extensions for IP multicasting	
986	Obsoleted by RFC1069	Guidelines for the use of Internet-IP addresses in the ISO Connectionless-Mode Network Protocol	Obsoleted or Updated by RFC Cisco IOS Supports
982		Guidelines for the specification of the structure of the Domain Specific Part (DSP) of the ISO standard NSAP (Network Service Access Point) address	Yes
974	Obsoleted by RFC2821	Mail routing and the domain system	Yes
973	Obsoleted by RFC1034, RFC1035, updates RFC0882, RFC0883	Domain system changes and observations	Obsoleted or Updated by RFC Cisco IOS Supports
958	Obsoleted by RFC1059, RFC1119, RFC1305	Network Time Protocol (NTP)	Obsoleted or Updated by RFC Cisco IOS Supports
951	Updated by RFC1395, RFC1497, RFC1532, RFC1542	Bootstrap Protocol (BootP)	Yes
950	Updates RFC0792	Internet Standard Subnetting Procedure	Yes
948	Obsoleted by RFC1042	Two methods for the transmission of IP datagrams over IEEE 802.3 networks	Obsoleted or Updated by RFC Cisco IOS Supports
931	Obsoletes RFC0912, obsoleted by RFC1413	Authentication server	
930	Obsoletes RFC0884, obsoleted by RFC1091	Telnet terminal type option	Obsoleted or Updated by RFC Cisco IOS Supports
926	Obsoleted by RFC0994	Protocol for providing the connectionless mode network services	Obsoleted or Updated by RFC Cisco IOS Supports
925		Multi-LAN Address Resolution (PROXY ARP)	Yes
922		Broadcasting Internet Datagrams in the Presence of Subnets (IP_BROAD)	Yes
919		Broadcasting Internet Datagrams	Yes

RFC	RFC Remarks	RFC Title	Cisco Supports?
906		Bootstrap loading using TFTP (Trivial File Transfer Protocol)	Yes
904	Updates RFC0827, RFC0888	Exterior Gateway Protocol (EGP) Formal Specification	Yes
903		Reverse Address Resolution Protocol (RARP)	Yes
896		Congestion control in IP/TCP internetworks	Yes
895		Standard for the transmission of IP datagrams over experimental Ethernet networks	Yes
894		Standard for the transmission of IP datagrams over Ethernet networks	Yes
891		DCN local-network protocols	Yes
888	Updated by RFC0904	"STUB" Exterior Gateway Protocol	Obsoleted or Updated by RFC Cisco IOS Supports
883	Obsoleted by RFC1034, RFC1035, updated by RFC0973	Domain names: Implementation specification	Obsoleted or Updated by RFC Cisco IOS Supports
882	Obsoleted by RFC1034, RFC1035, updated by RFC0973	Domain names: Concepts and facilities	Obsoleted or Updated by RFC Cisco IOS Supports
879		TCP maximum segment size and related topics	Yes
877	Obsoleted by RFC1356	Standard for the transmission of IP datagrams over public data networks	Yes
874		Critique of X.25	Yes
863		Discard Service (TCP Discard)	Yes
862		Echo Service (TCP Echo)	Yes
860		Telnet Timing Mark Option	Yes
858		Telnet Suppress Go Ahead Option	Yes
857		Telnet Echo Option	Yes
856		Telnet Binary Transmission	Yes
855		Telnet Option Specifications	Yes
854	Obsoletes RFC0764	Telnet Protocol Specification	Yes
827	Updated by RFC0904	Exterior Gateway Protocol (EGP)	Yes
826		Ethernet Address Resolution Protocol: Or converting network protocol addresses to 48.bit Ethernet address for transmission on Ethernet hardware	Yes
815		IP datagram reassembly algorithms	Yes
813		Window and Acknowledgement Strategy in TCP	Yes
793	Updated by RFC3168	Transmission Control Protocol (TCP)	Yes
792	Obsoletes RFC0777, updated by RFC0950	Internet Control Message Protocol (ICMP)	Yes
791	Obsoletes RFC0760, updated by RFC1349	Internetwork Protocol (IP)	Yes
783	Obsoleted by RFC1350	TFTP (Trivial File Transfer Protocol) Protocol (revision 2)	Yes
779		Telnet send-location option	Yes
777	Obsoleted by RFC0792	Internet Control Message Protocol	Obsoleted or Updated by RFC Cisco IOS Supports
768		User Datagram Protocol (UDP)	Yes
764	Obsoleted by RFC0854	Telnet Protocol specification	Obsoleted or Updated by RFC Cisco IOS Supports
760	Obsoleted by RFC0791, updated by RFC0777	Department of Defense (DoD) standard Internet Protocol (IP)	Obsoleted or Updated by RFC Cisco IOS Supports
742	Obsoleted by RFC1288, RFC1196, RFC1194	NAME/FINGER Protocol	Obsoleted or Updated by RFC Cisco IOS Supports

The full text for each RFC may be obtained at: <u>http://www.rfc-editor.org/</u>

Institute of Electrical and Electronics Engineers (IEEE) Standards

 Table 2.
 IEEE standards supported in Cisco IOS Software Releases

IEEE Standard	Working Group
802.1	LAN/MAN Bridging and Management
802.1Q	Virtual LANs
802.3	CSMA/CD (Ethernet)
802.5	LAN/MAN Token-Ring Access Method

The full text for each IEEE standard may be obtained at: http://www.ieee.com

Asynchronous Transfer Mode (ATM) Forum Standards

Table 3. AT	M Forum standards	supported in Cisco	IOS Software Releases
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Technical Working Group	Approved Specifications	Specification	Approved Date
Physical Layer	Issued as part of UNI 3.1: 44.736 DS3 Mbps Physical Layer 100 Mbps Multimode Fiber Interface Physical Layer 155.52 Mbps SONET STS-3c Physical Layer 155.52 Mbps Physical Layer	af-uni-0010.002	Currently Available to Members Only
AIC/ATM-IP Collaboration (formerly LanE)	Multi-Protocol Over ATM Specification v1.0	af-mpoa-0087.000	July, 1997
ILMI (Integrated Local Mgmt. Interface)	ILMI 4.0	af-ilmi-0065.000	Sep, 1996
P-NNI	Private Network-Network Interface Specification V. 1.0	af-pnni-0055.000	Mar, 1996
AIC/ATM-IP Collaboration (formerly LanE)	LAN Emulation over ATM 1.0	af-lane-0021.000	Jan, 1995

The full text for each ATM Forum standard may be obtained at: http://www.atmforum.com

Frame Relay Forum Standards

 Table 4.
 Frame Relay Forum standards supported in Cisco IOS Software Releases

FRF Number	Title	Date
FRF.1.2	PVC User-to-Network Interface (UNI) Implementation Agreement	July-00
FRF.2.2	Frame Relay Network-to-Network Interface (NNI) Implementation Agreement	Mar-02
FRF.3.2	Frame Relay Multiprotocol Encapsulation Implementation Agreement	April-00
FRF.4.1	SVC User-to-Network Interface (UNI) Implementation Agreement	January-00
FRF.5	Frame Relay/ATM PVC Network Interworking Implementation	December-94
FRF.8.2	Frame Relay / ATM PVC Service Interworking Implementation Agreement	February-04
FRF.9	Data Compression Over Frame Relay Implementation Agreement	January-96
FRF.11.1	Voice over Frame Relay Implementation Agreement	May 1997—Annex J added March 1999
FRF.12	Frame Relay Fragmentation Implementation Agreement	Dec-97
FRF.16.1	Multilink Frame Relay UNI/NNI Implementation Agreement	May-02

The full text for each Frame Relay Forum standard may be obtained at: <u>http://www.frforum.com</u>

International Telecommunication Union (ITU) Standards

ITU Standard	Year	Notes
X.3	1984	Mandatory elements and many optional elements
X.25	1984	See NET2 and GOSIP certifications
X.28	1993	
X.29	1984	
X.31—X.25 on ISDN		
X.121		Addressing scheme
H.323		Packet-based multimedia communications systems
Т.37		Procedures for the transfer of facsimile data via store-and-forward on the Internet
Т.38		Procedures for real-time Group 3 facsimile communication over IP networks
Т.38		Procedures for real-time Group 3 facsimile communication over IP networks, Amendment 1
Revised Annex B of Recommendation T.38		
Voice CODEC g711alaw		G.711 A Law 64000 bps
Voice CODEC g711ulaw		G.711 u Law 64000 bps
Voice CODEC g723ar53		G.723.1 ANNEX-A 5300 bps
Voice CODEC g723ar63		G.723.1 ANNEX-A 6300 bps
Voice CODEC g723r53		G.723.1 5300 bps
Voice CODEC g723r63		G.723.1 6300 bps
Voice CODEC g726r16		G.726 16000 bps
Voice CODEC g726r24		G.726 24000 bps
Voice CODEC g726r32		G.726 32000 bps
Voice CODEC g728		G.728 16000 bps
Voice CODEC g729br8		G.729 ANNEX-B 8000 bps
Voice CODEC g729r8		G.729 8000 bps
Voice CODEC gsmefr		GSMEFR 12200 bps
Voice CODEC gsmfr		GSMFR 13200 bps
Q.931 and related standards		ISDN user-network interface layer 3 specification for basic call control

Table 5.	ITU standards supported in Cisco IOS Software Releases
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More information for each ITU standard may be obtained at: http://www.itu.int/

International Organization for Standardization (ISO) Standards

Table 6.	ISO standards supported in Cisco IOS Software Releases
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ISO Standard	Year	Category	Description
ISO 8473-1	1998	Information technology	Protocol for providing the connectionless-mode network service: Protocol specification
ISO 10589/Amd1	1996	Information technology	Telecommunications and information exchange between systems— Intermediate system to Intermediate system (IS-IS) intra-domain routing information exchange protocol for use in conjunction with the protocol for providing the connectionless-mode Network Service (ISO 8473)— Amendment 1: Implementation conformance statement proformas
ISO 8348/Amd2	1991	Information technology	Open Systems Interconnection—Network Service Definition—Documents NSAP (Network Service Access Point) addresses
ISO 9542	1988	Information processing systems	Telecommunications and information exchange between systems—End system to Intermediate system (ES-IS) routing exchange protocol for use in conjunction with the Protocol for providing the connectionless-mode network service (ISO 8473)

More information for each ISO standard may be obtained at: http://www.iso.org/

Additional Standards

Standard Group	Date	Title	Note
VoiceXML	23-Oct-01	VoiceXML Version 2.0, W3C Working Draft that defines <u>http://www.w3.org/Voice/</u> VoiceXML	
PacketCable	1-Dec-99	PSTN Gateway Call Signaling Protocol Specification (Pkt- SP-TGCP-D02-991028)	http://www.packetcable.com/
PacketCable	1-Dec-99	Network-Based Call Signaling Protocol Specification (PKT- SP-EC-MGCP-I02-991201)	http://www.packetcable.com/
PacketCable	24-Oct-99	PSTN Gateway Call Signaling Protocol Specification, Pkt- SP-TGCP-101-991024	http://www.packetcable.com/
PacketCable	24-Oct-99	Network-Based Call Signaling Protocol Specification, Pkt- SP-EC-MGCP-102-991024	http://www.packetcable.com/
Telecordia		Telecordia SM 1.5 (Simple Gateway Control Protocol)	
ECMA-262	1-Aug-98	ECMAScript Language Specification, 3rd edition—Defines the ECMAScript scripting language	http://www.ecma-international.org/
ECMA QSIG Standards		ECMA 141	http://www.ecma-international.org/
ECMA QSIG Standards		ECMA 142	http://www.ecma-international.org/
ECMA QSIG Standards		ECMA 143(ETSI300-172)	http://www.ecma-international.org/
ECMA QSIG Standards		ECMA 165(ETSI239)	http://www.ecma-international.org/
ECMA QSIG Standards		ECMA Q.SIG v1 & v2	http://www.ecma-international.org/

Table 7.	Additional	Standards and	Organizations
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Americas Headquarters Cisco Systems, Inc. San Jose, CA Asia Pacific Headquarters Cisco Systems (USA) Pte. Ltd. Singapore Europe Headquarters Cisco Systems International BV Amsterdam, The Netherlands

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