

Release/Feature	Search by Software	Feature Set/Feature
Objective: Define a specific software image in order to view its supported features. Select from the pull down menus to find releases which support particular platform and feature set combinations. View your results in the table below and repeat as necessary to define a specific software image.		
Your Selections:		
Platform	CAT6000 SUP720-MSFC3	
Software	IOS	
Major Release	12.2S(X) ▼	
Release	Select One ▼	
Feature Set/License	Select One ▼	
New Search		

NOTE: The features listed below are not available in every software image.

Search Results

Features

- [256+ VLANs](#)
- [8-Way CEF Load Balancing](#)
- [AAA Broadcast Accounting](#)
- [AAA DNIS Map for Authorization](#)
- [AAA Resource Accounting](#)
- [AAA Server Group](#)
- [AAA Server Group Deadtimer](#)
- [AAA Server Group Enhancements](#)
- [AAA Server Groups Based on DNIS](#)
- [ACL - Improved Merging Algorithm](#)
- [ACL - Named ACL Support for Noncontiguous Ports on an Access Control Entry](#)
- [ACL - Reflexive Access Lists](#)
- [ACL Sequence Numbering](#)
- [ACLs for secondary VLANs](#)
- [Additional Vendor-Proprietary RADIUS Attributes](#)
- [Address Resolution Protocol \(ARP\)](#)
- [Advanced QinQ Service Mapping](#)
- [Advanced Voice Busyout \(AVBO\)](#)
- [Airline Product Set \(ALPS\)](#)
- [Airline Product Set Enhancements \(MATIP\)](#)
- [Any Transport over MPLS \(AToM\): Ethernet over MPLS Port Mode \(EoMPLS\)](#)
- [Any Transport over MPLS \(AToM\): ATM AAL5 over MPLS \(AAL5oMPLS\)](#)
- [Any Transport over MPLS \(AToM\): Ethernet over MPLS \(EoMPLS\)](#)
- [Any Transport over MPLS \(AToM\): Frame Relay over MPLS \(FRoMPLS\)](#)
- [Any Transport over MPLS \(AToM\): HDLC over MPLS \(HDLCoMPLS\)](#)
- [Any Transport over MPLS \(AToM\): PPP over MPLS \(PPPoMPLS\)](#)
- [Any Transport over MPLS \(AToM\): Single Cell Relay - VC Mode \(CRoMPLS\)](#)
- [AppleTalk 1 and 2](#)
- [AppleTalk Access List Enhancements](#)
- [AppleTalk Control Protocol \(ATCP\)](#)
- [AppleTalk Load Balancing](#)
- [AppleTalk Remote Access Protocol \(ARAP\)](#)
- [AppleTalk Routing over ISL and IEEE 802.10 in Virtual LANs](#)
- [AppleTalk SMRP](#)
- [AppleTalk Update-Based Routing Protocol \(AURP\)](#)
- [ARP \(MAC\) ACL for IP](#)
- [Asynchronous Serial Traffic Over UDP \(aka UDPTN\)](#)
- [ATM AAL5 OAM Emulation over L2TPv3](#)
- [ATM Access Lists](#)
- [ATM ARP Client](#)
- [ATM ARP Server](#)
- [ATM Cell Loss Priority \(CLP\) Setting](#)
- [ATM OAM Ping](#)
- [ATM PVC Trap Enhancements for Segment and End AIS/RDI failures](#)
- [ATM PVC Trap Support](#)
- [ATM Routed Bridge Encapsulation \(RBE\)](#)
- [ATM Tag Switch Router \(TSR\)](#)
- [ATM VC Access Trunk Emulation](#)
- [ATM-DXI](#)

[Authentication Proxy Accounting for HTTP](#)

[Autoinstall Using DHCP for LAN Interfaces](#)

[Automatic modem configuration](#)

[Automatic Protection Switching \(APS\)](#)

[Autostate](#)

[Autostate - Firewall Capability](#)

[Bandwidth Allocation Control Protocol \(BACP\)](#)

[Bandwidth Command for HQoS Parent Class Support](#)

[Banyan VINES](#)

[Banyan VINES SRTP](#)

[BGP](#)

[BGP_4](#)

[BGP_4 Multipath Support](#)

[BGP_4 Prefix Filter and In-bound Route Maps](#)

[BGP_4 Soft Config](#)

[BGP Conditional Route Injection](#)

[BGP Configuration Using Peer Templates](#)

[BGP Convergence Optimization](#)

[BGP Cost Community](#)

[BGP Cost Community Support for EIGRP MPLS VPN PE-CE](#)

[BGP Dynamic Update Peer-Groups](#)

[BGP Hide Local-Autonomous System](#)

[BGP Hybrid CLI Support](#)

[BGP Increased Support of Numbered as-path Access Lists to 500](#)

[BGP Link Bandwidth](#)

[BGP Multipath Load Sharing for Both eBGP and iBGP in an MPLS-VPN](#)

[BGP Named Community Lists](#)

[BGP Next Hop Propagation](#)

[BGP Prefix-Based Outbound Route Filtering](#)

[BGP Reduction in Transient Memory Usage](#)

[BGP Restart Neighbor Session After max-prefix Limit Reached](#)

[BGP Route-Map Continue](#)

[BGP Soft Reset](#)

[BGP Support for IP Prefix Import from Global Table into a VRF Table](#)

[BGP Support for Named Extended Community Lists](#)

[BGP Support for Sequenced Entries in Extended Community Lists](#)

[BGP Support for TTL Security Check](#)

[Bidirectional Forwarding Detection \(BFD\) Standard Implementation](#)

[Bidirectional PIM](#)

[Bidirectional VACLs for Private VLANs](#)

[Blaync \(BSC\)](#)

[Bridge Control Protocol \(BCP\)](#)

[Bridge Control Protocol \(BCP\) Quality of Service \(QoS\)](#)

[Bridge Control Protocol \(BCP\) Support](#)

[Bridging between IEEE 802.1Q VLANs](#)

[Bridging using RFC1483 Routed Encapsulation \(BRE\)](#)

[Broadcast/Multicast Suppression](#)

[BSTUN \(Block Serial Tunneling\)](#)

[Capture Capability with VACLs](#)

[CDP \(Cisco Discovery Protocol\) Version 2](#)

[CEF Support for IP Routing between IEEE 802.1Q VLANs](#)

[CEF Switching for Routed Bridge Encapsulation](#)

[CEFidCEF - Cisco Express Forwarding](#)

[CEIPv6 Switching for 6to4 Tunnels](#)

[CEIPv6idCEFv6 - Cisco Express Forwarding](#)

[Certificate - Auto Enrollment](#)

[Certificate - Security Attribute-Based Access Control](#)

[Certification Authority Interoperability \(CA\)](#)

[CGMP - Cisco Group Management Protocol](#)

[Challenge Handshake Authentication Protocol \(CHAP\)](#)

[Cisco IOS Login Enhancements](#)

[Cisco IOS Software Modularity](#)

[CiscoView Autonomous Device Manager \(ADP\)](#)

[Class Based Ethernet CoS Matching & Marking \(802.1p & ISL CoS\)](#)

[Class Based Weighted Fair Queuing \(CBWFQ\)](#)

[Class-Based Marking](#)

[Class-Based Policing](#)

[Class-Based Shaping](#)

[Clear Counters Per Port](#)

[Clear Hardware Interface Counters](#)

[CLI String Search](#)

[CLNS Support for GRE Tunneling of IPv4 and IPv6](#)

[CNS - Interactive CLI](#)

[Commented IP Access List Entries](#)

[Committed Access Rate \(CAR\)](#)

[Compression Control Protocol](#)

[Configurable per ATM-VC Hold Queue size](#)

[Configurable Per VLAN MAC Learning \(PVL\)](#)

[Configurable Speed Negotiation](#)

[Configuration Change Notification and Logging](#)

[Configuration Versioning](#)

[Connection-Mode Network Service \(CMNS\)](#)

[Content Switching Module \(CSM\)](#)

[Context-Based Access Control \(CBAC\)](#)

[Contextual Configuration Diff Utility](#)

[Control Plane DSCP Support for RSVP](#)

[eRTP for FlexWAN Module](#)

[Crypto Conditional Debug Support](#)

[CSG CLI for CSG R7 Features](#)

[CSG: Content Services Gateway Release 1](#)

[CSG: Content Services Gateway Release 5](#)

[CSG: Content Services Gateway Release 6](#)

[CUG Selection Facility Suppress Option](#)

[Custom Queueing \(CQ\)](#)

[DE/CLP and EXP Mapping on FR/ATMoMPLS VC](#)

[Debounce Timer per Port](#)

[DECnet Accounting](#)

[DECnet IV](#)

[DECnet over ISL](#)

[DECnet V](#)

[Default Passive Interface](#)

[DHCP - Configurable DHCP Client](#)

[DHCP Client](#)

[DHCP Option 82 on Untrusted Port](#)

[DHCP Proxy Client](#)

[DHCP Relay Agent Support for Unnumbered Interfaces](#)

[DHCP Server](#)

[DHCP Server Options - Import and Autoconfiguration](#)

[DHCP Snooping](#)

[Diagnostics Options on bootup](#)

[DiffServ Compliant dWRED](#)

[Diffserv Compliant WRED](#)

[Digital Optical Monitoring \(DOM\)](#)

[Display SAP by Name](#)

[Distributed Traffic Policing](#)

[Distinguished Name Based Crypto Maps](#)

[Distributed CRTP \(dCRTP\)](#)

[Distributed MLPPP \(dMLPPP\)](#)

[Distributed Network-based Application Recognition \(dNBAR\)](#)

[Distributed Traffic Shaping \(dTS\)](#)

[DLR Enhancements: PGM RFC-3208 Compliance](#)

[DLsw \(RFC 1795\)](#)

[DLsw CO features](#)

[DLsw V2](#)

[DLsw+](#)

[DLsw+ Asynchronous TCP Enhancements](#)

[DLsw+ Backup Peer Extensions for Encapsulation Types](#)

[DLsw+ Border Peer Caching](#)

[DLsw+ Enhanced Load Balancing](#)

[DLsw+ Ethernet Redundancy](#)

[DLsw+ Peer Group Clusters](#)

[DLsw+ RSVP Bandwidth Reservation](#)

[DLSw+ SNA Type of Service](#)

[DLSw+ Support For Transporting LLC1 UI Traffic](#)

[DMVPN - Phase 2](#)

[Dot1q Transparency for EoMPLS](#)

[Double Authentication](#)

[Down Stream Physical Unit \(DSPU\) over DLSw+](#)

[Downstream PU concentration \(DSPU\)](#)

[DRP Server Agent](#)

[DSCP-based Queue Mapping](#)

[Dynamic ARP Inspection](#)

[Dynamic Feedback Protocol \(DFP\)](#)

[Dynamic Trunking Protocol \(DTP\)](#)

[Easy IP \(Phase 1\)](#)

[EasyVPN Server Enhancements](#)

[Egress ACL Support for Remarkd DSCP](#)

[EIGRP MPLS VPN PE-CE Site of Origin \(SoO\)](#)

[EIGRP Stub Routing](#)

[EIGRP Support for Route Map Filtering](#)

[Embedded Event Manager \(EEM\) 2.1](#)

[Embedded Network Management Improvements](#)

[Encapsulated Remote SPAN](#)

[Encrypted Kerberized Telnet](#)

[Encrypted Multicast over GRE](#)

[Encrypted Pre-shared Key](#)

[Enhanced ATM VC Configuration and Management](#)

[Enhanced High System Availability](#)

[Enhanced IGRP \(EIGRP\)](#)

[Enhanced Local Management Interface \(ELMI\)](#)

[Enhanced Password Security](#)

[Enhanced PoE Support \(Additional Wattage Range\)](#)

[EnDisable Reactivation Per Port](#)

[EnDisable timeout](#)

[EtherChannel](#)

[EtherChannel - Flexible PAgP](#)

[EtherChannel Enhancement - 128 EtherChannels Support](#)

[EtherChannel Enhancement - Single Port Channel](#)

[Etherchannel Guard](#)

[EtherChannel Layer 4 Distribution](#)

[EtherChannel Min-Links](#)

[Ethernet over MPLS \(EoMPLS\) - IEEE 802.1q Tag Stacking](#)

[Ethernet over MPLS \(EoMPLS\) - Port-Based](#)

[Ethernet over MPLS \(EoMPLS\) - Protocol Tunneling](#)

[Ethernet Over MPLS \(EoMPLS\) Per Vlan QoS](#)

[Exclusive Configuration Change Access](#)

[Exporting and Importing RSA Keys](#)

[Express RTP and TCP Header Compression](#)

[Extended ACL support for IGMP to support SSM in IPv4](#)

[Fast EtherChannel \(FEC\)](#)

[Fast-Switched Policy Routing](#)

[Fast-Switched SRTTB](#)

[Field Programmable Device Upgrade Tool](#)

[Firewall Authentication Proxy](#)

[Firewall Feature Set](#)

[Flex Links](#)

[Flow-Based WRED](#)

[Frame Relay](#)

[Frame Relay - Multilink \(MLFR-FRF.16\)](#)

[Frame Relay Access Support \(FRAS\) Border Access Node \(BAN\)](#)

[Frame Relay Access Support \(FRAS\) Boundary Network Node \(BNN\)](#)

[Frame Relay Access Support \(FRAS\) Dial Backup over DLSw+](#)

[Frame Relay Access Support \(FRAS\) DLCI Backup](#)

[Frame Relay Access Support \(FRAS\) Host](#)

[Frame Relay ELMI Address Registration](#)

[Frame Relay Encapsulation](#)

[Frame Relay End-to-End Keepalive](#)

[Frame Relay Fragmentation \(FRF.12\)](#)

[Frame Relay Fragmentation with Hardware Compression](#)

[Frame Relay FRF.9 Payload Compression](#)

[Frame Relay IP RTP Priority](#)

[Frame Relay PVC Interface Priority Queueing](#)

[Frame Relay Queueing and Fragmentation at the Interface](#)

[Frame Relay Router ForeSight](#)

[Frame Relay SVC Support \(DTE\)](#)

[Frame Relay Switching](#)

[Frame Relay Switching Diagnostics and Troubleshooting](#)

[Frame Relay Switching Enhancements: Shaping and Policing](#)

[Frame Relay Traffic Shaping \(FRTS\)](#)

[Frame Relay Tunnel Switching](#)

[FRF.11 for FlexWAN Module](#)

[FTP Support for Downloading Software Images](#)

[Gateway Load Balancing Protocol \(GLBP\)](#)

[Generic Routing Encapsulation \(GRE\)](#)

[Generic Routing Encapsulation \(GRE\) Tunnel Keepalive](#)

[Generic Traffic Shaping \(GTS\)](#)

[GOLD - Generic Online Diagnostics](#)

[Half bridge/half router for CPP and PPP](#)

[Hardware Capacity Monitoring](#)

[Hardware-assisted NAT](#)

[Hierarchical Traffic Shaping](#)

[HQoS Support for Ethernet Over MPLS \(EoMPLS\) VC](#)

[HSRP - Hot Standby Router Protocol](#)

[HSRP over ISL](#)

[HSRP support for ICMP Redirects](#)

[HSRP support for MPLS VPNs](#)

[HTTP Security](#)

[iBGP Multipath Load Sharing](#)

[IDSM-2 Etherchannel Load Balancing](#)

[IEEE 802.1Q Custom Ethertype](#)

[IEEE 802.1Q ISL VLAN Mapping](#)

[IEEE 802.1Q Tunneling](#)

[IEEE 802.1Q VLAN Support](#)

[IEEE 802.1Q VLAN Trunking](#)

[IEEE 802.1s - Multiple Spanning Tree \(MST\) Standard Compliance](#)

[IEEE 802.1s VLAN Multiple Spanning Trees](#)

[IEEE 802.1t](#)

[IEEE 802.1W Spanning Tree Rapid Reconfiguration](#)

[IEEE 802.1x - VLAN Assignment](#)

[IEEE 802.1x Authenticator](#)

[IEEE 802.3ad Link Aggregation \(LACP\)](#)

[IEEE 802.3af PoE \(Power over Ethernet\)](#)

[IEEE 802.3x Flow Control](#)

[IGMP Fast Leave](#)

[IGMP Snooping](#)

[IGMP Snooping Querier](#)

[IGMP State Limit](#)

[IGMP v3 Snooping Enhancements](#)

[IGMP Version 1](#)

[IGMP Version 2](#)

[IGMP Version 3](#)

[IGMP Version 3 - Explicit Tracking of Hosts, Groups, and Channels](#)

[IGRP](#)

[IKE - Initiate Aggressive Mode](#)

[Integrated IS-IS Global Default Metric](#)

[Integrated IS-IS Point to Point Adjacency over Broadcast Media](#)

[Integrated IS-IS Protocol Shutdown Support Maintaining Configuration Parameters](#)

[Interface Index Persistence](#)

[Interface Range Specification](#)

[Internet Protocol Control Protocol \(IPCP\) address negotiation](#)

[Invalid Special Parameter Index \(SPI\) Recovery](#)

[Inverse Multiplexing over ATM \(IMA\)](#)

[IP 16-way Equal-Cost Multipath](#)

[IP DSCP marking for Frame-Relay PVC](#)

[IP Enhanced IGRP Route Authentication](#)

[IP Event Dampening](#)

[IP MMLS Global Threshold](#)

[IP Multicast Load Splitting across Equal-Cost Paths](#)

[IP Multicast Multilayer Switching \(MMLS\)](#)

[IP Multilayer Switching \(IP MLS\)](#)

[IP Named Access Control List](#)

[IP over CLNS tunnel](#)

[IP Precedence Accounting](#)

[IP Precedence for GRE Tunnels](#)

[IP Routing](#)

[IP Routing of RFC1483 ATM Bridge Encapsulation \(RBE\)](#)

[IP SLAs - DHCP Operation](#)

[IP SLAs - Distribution of Statistics](#)

[IP SLAs - DSLW+ Operation](#)

[IP SLAs - DNS Operation](#)

[IP SLAs - FTP Operation](#)

[IP SLAs - History Statistics](#)

[IP SLAs - HTTP Operation](#)

[IP SLAs - ICMP Echo Operation](#)

[IP SLAs - ICMP Path Echo Operation](#)

[IP SLAs - One Way Measurement](#)

[IP SLAs - Reaction Threshold](#)

[IP SLAs - Scheduler](#)

[IP SLAs - SNA LU2 Echo](#)

[IP SLAs - SNMP Support](#)

[IP SLAs - TCP Connect Operation](#)

[IP SLAs - UDP Echo Operation](#)

[IP SLAs - UDP Jitter Operation](#)

[IP Summary Address for RIPv2](#)

[IP to ATM CoS, per-VC WFQ and CBWFQ](#)

[IP Unnumbered for VLAN-SVI interfaces](#)

[IP-to-ATM CoS](#)

[IPSec Anti-Replay Window: Expanding and Disabling](#)

[IPSec Network Security](#)

[IPSec SA Idle Timers](#)

[IPSec VPN Accounting](#)

[IPSec VPN Monitoring](#)

[IPSec VPN Services Module](#)

[IPv4 Multicast over Point-to-Point GRE Tunnels](#)

[IPv6 \(Internet Protocol Version 6\)](#)

[IPv6 Access Services: DHCPv6 Prefix Delegation](#)

[IPv6 Data Link: VLANs using Cisco Inter-Switch Link \(ISL\)](#)

[IPv6 Data Link: VLANs using IEEE 802.1Q Encapsulation](#)

[IPv6 Hardware: Multicast Assist](#)

[IPv6 MTU Path Discovery](#)

[IPv6 Multicast](#)

[IPv6 Multicast RPR/RPR+ support](#)

[IPv6 Multicast: Address Family Support for Multiprotocol BGP](#)

[IPv6 Multicast: Bootstrap Router \(BSR\)](#)

[IPv6 Multicast: HW Assisted Egress Replication](#)

[IPv6 Neighbor Discovery](#)

[IPv6 QoS: \(Quality of Service\)](#)

[IPv6 Routing: IS-IS Support for IPv6](#)

[IPv6 Routing: Multiprotocol BGP Extensions for IPv6](#)

[IPv6 Routing: Multiprotocol BGP Link-local Address Peering](#)

[IPv6 Routing: OSPF for IPv6 \(OSPFv3\)](#)

[IPv6 Routing: RIP for IPv6 \(RIPng\)](#)

[IPv6 Routing: Route Redistribution](#)

[IPv6 Routing: Static Routing](#)

[IPv6 Security: Secure Shell SSH support over IPv6](#)

[IPv6 Services: AAAA DNS Lookups over an IPv4 Transport](#)

[IPv6 Services: Cisco Discovery Protocol \(CDP\) - IPv6 Address Family Support for Neighbor Information](#)

[IPv6 Services: DNS Lookups over an IPv6 Transport](#)

[IPv6 Services: Extended Access Control Lists](#)

[IPv6 Services: Standard Access Control Lists](#)

[IPv6 Source Specific Multicast \(SSM\) Mapping](#)

[IPv6 Stateless Auto-configuration](#)

[IPv6 Static Cache Entry for Neighbor Discovery](#)

[IPv6 Switching: CEF/dCEF Support](#)

[IPv6 Switching: CEFv6 Switched Automatic IPv4-compatible Tunnels](#)

[IPv6 Switching: CEFv6 Switched Configured IPv6 over IPv4 Tunnels](#)

[IPv6 Switching: CEFv6 Switched ISATAP Tunnels](#)

[IPv6 Switching: Provider Edge Router over MPLS \(6PE\)](#)

[IPv6 Tunneling: Automatic 804 Tunnels](#)

[IPv6 Tunneling: Automatic IPv4-compatible Tunnels](#)

[IPv6 Tunneling: IPv6 over IPv4 GRE Tunnels](#)

[IPv6 Tunneling: ISATAP Tunnel Support](#)

[IPv6 Tunneling: Manually Configured IPv6 over IPv4 Tunnels](#)

[IPv6: ICMPv6](#)

[IPv6: ICMPv6 Redirect](#)

[IPv6: Neighbor Discovery Duplicate Address Detection](#)

[IPX Access Control List Violation Logging](#)

[IPX Access List Plain English Filters](#)

[IPX Control Protocol](#)

[IPX Encapsulation for 802.10 VLAN](#)

[IPX Multilayer Switching \(IPX MLS\)](#)

[IPX Named Access Lists](#)

[IPX Routing over ISL Virtual LANs](#)

[IPX SAP: after RIP](#)

[IPXWAN 2.0](#)

[IS-IS](#)

[IS-IS Caching of Redistributed Routes](#)

[IS-IS HMAC-MD5 Authentication](#)

[IS-IS Incremental Shortest Path First \(i-SPF\) Support](#)

[IS-IS Limit on Number of Redistributed Routes](#)

[IS-IS Mechanism to Exclude Connected IP Prefix from LSP Advertisements](#)

[IS-IS Multirearea Support](#)

[IS-IS Support for BFD over IPv4](#)

[IS-IS Support for IP Route Tags](#)

[IS-IS Support for Priority-Driven IP Prefix RIB Installation](#)

[ISL VLAN](#)

[ISO CLNS](#)

[Jumbo Frames](#)

[Jumbo Frames support for intraVLAN traffic on Gigabit Ethernet links](#)

[Jumbo Frames Support on EtherChannels and Trunk Ports](#)

[Kerberos V Client Support](#)

[Key Rollover for Certificate Renewal](#)

[L2PT - Global Threshold](#)

[L2PT - Layer 2 Protocol Tunneling](#)

[L2PT - Layer 2 Protocol Tunneling on Trunk Ports](#)

[L3 MPLS VPN over GRE](#)

[LAN Network Manager over DSLw+](#)

[Layer 2 Traceroute](#)

[Layer 3 Mobility support for WLSM \(Wireless LAN Service Module\)](#)

[LEI over PPP/HDLC, FR and ATM for FlexWAN Module](#)

[Link Fragmentation and Interleaving \(LFI\) for Frame Relay and ATM Virtual Circuits](#)

[Loadsharing IP packets over more than six parallel paths](#)

[Local Area Transport \(LAT\)](#)

[Local Proxy ARP](#)

[Local Voice Busyout \(LVBO\)](#)

[Lock and Key](#)

[Low Latency Queueing \(LLQ\)](#)

[Low Latency Queueing \(LLQ\) for Frame Relay](#)

[Low Latency Queueing \(LLQ\) for IPSEC Encryption Engines](#)

[MAC Address Filtering](#)

[Manual certificate enrollment \(TFTP and cut-and-paste\)](#)

[Manual Certificate Enrollment via TFTP](#)

[Memory Threshold Notifications](#)

[Message Banners for AAA Authentication](#)

[Microsoft Point-to-Point Compression \(MPPC\)](#)

[MLD Snooping](#)

[MLPPP - Multilink PPP](#)

[MLPPP Minimum Links Mandatory](#)

[MLPPP QoS \(CBWFQ, LLQ, WRED\)](#)

[Modular QoS CLI \(MQC\)](#)

[MPLS \(Multiprotocol Label Switching\)](#)

[MPLS Class of Service \(CoS\)](#)

[MPLS Class of Service \(CoS\) Enhancements](#)

[MPLS Diff-Serv-Aware Traffic Engineering \(DS-TE\)](#)

[MPLS EM - MPLS TE MIB Trap Notifications](#)

[MPLS Label Switch Controller \(LSC\) and Enhancements](#)

[MPLS LDP - Inbound Label Binding Filtering](#)

[MPLS LDP - Label Distribution Protocol \(LDP\)](#)

[MPLS LSP Ping/Traceroute and AToM VCCV](#)

[MPLS Quality of Service \(QoS\) Enhancements](#)

[MPLS Traceroute](#)

[MPLS Traffic Engineering \(TE\)](#)

[MPLS Traffic Engineering \(TE\) - Automatic bandwidth adjustment for TE tunnels](#)

[MPLS Traffic Engineering \(TE\) - Configurable Path Calculation Metric for Tunnels](#)

[MPLS Traffic Engineering \(TE\) - Fast Reroute \(FRR\) Link and Node Protection](#)

[MPLS Traffic Engineering \(TE\) - Interarea Tunnels](#)

[MPLS Traffic Engineering \(TE\) - IP Explicit Address Exclusion](#)

[MPLS Traffic Engineering \(TE\) - OSPF Support](#)

[MPLS Traffic Engineering \(TE\) - Path Protection](#)

[MPLS Traffic Engineering \(TE\) - Scalability Enhancements](#)

[MPLS Virtual Private Networks \(VPN\)](#)

[MPLS VPN - Inter-Autonomous System Support](#)

[MPLS VPN - Multi-Path support for Inter-AS VPNs](#)

[MPLS VPN - OSPF PE-CE Support](#)

[MPLS VPN Carrier Supporting Carrier](#)

[MPLS VPN Carrier Supporting Carrier - IPv4 BGP Label Distribution](#)

[MPLS VPN ID](#)

[MPLS VPN Inter-AS - IPv4 BGP Label Distribution](#)

[MPLS VPN support for EIGRP between Provider Edge \(PE\) and Customer Edge \(CE\)](#)

[MQC: Distribution of Remaining Bandwidth](#)

[MS Callback](#)

[MS-CHAP Version 1](#)

[MSDP compliance with IETF RFC 3618](#)

[Multi-Chassis Hunting for Voice over Frame Relay](#)

[Multi-ISA](#)

[Multi-protocol BGP \(MP-BGP\) - MPLS VPN](#)

[Multi-VRF Selection Using Policy Based Routing \(PBR\)](#)

[Multi-VRF Support \(VRF lite\)](#)

[Multicast BGP \(MBGP\)](#)

[Multicast Enhancement - Egress Replication Performance Improvement](#)

[Multicast Enhancement - Replication Mode Detection](#)

[Multicast Routing Monitor \(MRM\)](#)

[Multicast Source Discovery Protocol \(MSDP\)](#)

[Multicast Subsecond Convergence](#)

[Multicast-VPN: Multicast Support for MPLS VPN](#)

[MultiNode Load Balancing \(MNLB\) Forwarding Agent](#)

[Multiple RSA Keypair Support](#)

[Multipoint Bridging \(MPB\)](#)

[NAC - L2 IP](#)

[Named Method Lists for AAA Authorization and Accounting](#)

[NAT - Enhanced H.225/H.245 Forwarding Engine](#)

[NAT - Network Address Translation](#)

[NAT - Support for NetMeeting Directory \(Internet Locator Service - ILS\)](#)

[NAT - Support of H.323v2 Call Signaling \(FastConnect\)](#)

[NAT-Support of IP Phone to Cisco Call Manager](#)

[Native Client Interface Architecture \(NCIA\) Server](#)

[Native Service Point over DSLW+](#)

[NBAR - Network-based Application Recognition](#)

[NBAR Real-time Transport Protocol Payload Classification](#)

[NetBEUI over PPP \(NBFCP\)](#)

[NetFlow](#)

[NetFlow - Bridged Flow Statistics](#)

[NetFlow Aggregation](#)

[Netflow Data Export \(NDE\) Version 8](#)

[Netflow Egress Accounting](#)

[NetFlow Export of BGP Nexthop Information](#)

[Netflow Multicast Support](#)

[Netflow Multiple Export Destinations](#)

[NetFlow Policy Routing \(NPR\)](#)

[NetFlow Subinterface Support](#)

[NetFlow ToS-Based Router Aggregation](#)

[NetFlow v9 Export Format](#)

[NetWare Asynchronous Services Interface \(NASI\)](#)

[NetWare Link-Services Protocol \(NLSP\)](#)

[Network Analysis Module \(NAM\)](#)

[Network Time Protocol \(NTP\)](#)

[Next Hop Resolution Protocol \(NHRP\)](#)

[NLSP Multicast Support](#)

[Novell IPX](#)

[NSF - BGP](#)

[NSF - EIGRP](#)

[NSF - Graceful Restart \(GR\) and Non Stop Routing \(NSR\) for IS-IS](#)

[NSF - OSPF](#)

[NSF/SSO \(Nonstop Forwarding with Stateful Switchover\)](#)

[NSF/SSO - Multicast Multi-layer Switching \(MMLS\)](#)

[OCSP \(Online Certificate Status Protocol\)](#)

[On Demand Routing \(ODR\)](#)

[OSPF](#)

[OSPF Area Transit Capability](#)

[OSPF Flooding Reduction](#)

[OSPF Forwarding Address Suppression in Translated Type-5 LSAs](#)

[OSPF Inbound Filtering using Route Maps with a Distribute List](#)

[OSPF Incremental Shortest Path First \(I-SPF\) Support](#)

[OSPF Limit on Number of Redistributed Routes](#)

[OSPF Link State Database Overload Protection](#)

[OSPF Link-local Signaling \(LLS\) Per Interface Basis](#)

[OSPF MIB Support of RFC 1850 and Latest Extensions](#)

[OSPF Not-So-Stubby Areas \(NSSA\)](#)

[OSPF On Demand Circuit \(RFC 1793\)](#)

[OSPF Packet Pacing](#)

[OSPF Sham-Link Support for MPLS VPN](#)

[OSPF Shortest Paths First Throttling](#)

[OSPF Stub Router Advertisement](#)

[OSPF Support for BFD over IPv4](#)

[OSPF Support for Fast Hellos](#)

[OSPF Support for Forwarding Adjacencies over MPLS Traffic Engineered Tunnels](#)

[OSPF Support for Link State Advertisement \(LSA\) Throttling](#)

[OSPF Support for Multi-VRF on CE Routers](#)

[OSPF Support for Unlimited Software VRFs per Provider Edge \(PE\) Router](#)

[OSPF Update Packet-Pacing Configurable Timers](#)

[Packet Classification Based on Layer3 Packet Length](#)

[PAD Subaddressing](#)

[Parse Bookmarks](#)

[Parser Cache](#)

[Password Authentication Protocol \(PAP\)](#)

[Per Interface Sticky ARP](#)

[Per Port MAC Limiting](#)

[Per VLAN Load Balancing for Advanced QinQ Service Mapping](#)

[Per-Port Utilization of QoS statistics](#)

[Per-User Configuration](#)

[PGM Host](#)

[PIM Dense Mode State Refresh](#)

[PIM MIB Extension for IP Multicast](#)

[PIM Multicast Scalability](#)

[PIM Snooping](#)

[PIM Snooping DR Flooding Enhancement](#)

[PIM Version 1](#)

[PIM Version 2](#)

[PKI AAA Authorization Using the Entire Subject Name](#)

[Policy-Based Routing \(PBR\)](#)

[Policy-Based Routing \(PBR\) default next-hop route](#)

[Port Security](#)

[Port Security on 802.1Q Tunnel Ports](#)

[Port Security on Private VLAN Ports](#)

[Port Security on Trunk Ports](#)

[Port Security with 4096 Secure MAC addresses](#)

[Port Security with Sticky MAC Address](#)

[Port to Application Mapping \(PAM\)](#)

[Port-Based Access Control Lists \(PACLs\)](#)

[PPP](#)

[PPP over Frame Relay](#)

[Pragmatic General Multicast \(PGM\)](#)

[Pre-fragmentation For Ipsec VPNs](#)

[Priority Queueing \(PQ\)](#)

[Private VLANs](#)

[Protected Private Key Storage](#)

[Protocol Filtering](#)

[Protocol Translation \(PT\)](#)

[Protocol-Independent MAC ACL Filtering](#)

[QoS - Ignore Port Trust](#)

[QoS Data Export](#)

[QoS Packet Marking](#)

[QoS: Aggregated DSCP / Precedence Values for WRED](#)

[QoS: Ingress Shaping](#)

[QoS: Match VLAN](#)

[Qualified Logical Link Control \(QLLC\)](#)

[Quality of Service \(QoS\) - Classification and WRED](#)

[Quality of Service \(QoS\) - Classification Only](#)

[Quality of Service \(QoS\) - Minimum Threshold for WRED](#)

[Quality of Service \(QoS\) Queueing](#)

[Query Mode Definition Per Trustpoint](#)

[Query Multiple Servers during Certificate Revocation Check](#)

[RADIUS](#)

[RADIUS Attribute 44 \(Accounting Session ID\) in Access Requests](#)

[RADIUS for Multiple User Datagram Protocol Ports](#)

[RADIUS Tunnel Attribute Extensions](#)

[Random Early Detection \(RED\)](#)

[Rapid-Per-VLAN-Spanning Tree \(Rapid-PVST\)](#)

[Rate Queues for SVCs per sub-interface](#)

[Re-Enroll Using Existing Certificate](#)

[Real-time Resolution for IPsec Tunnel Peer](#)

[Reduced MAC Address Usage](#)

[Redundancy Facility Protocol](#)

[Redundant Supervisor Engine 720 as a DFC for Improved OIR](#)

[Remote SPAN \(RSPAN\)](#)

[Resource Pool Management with Direct Remote Services](#)

[Response Time Reporter \(RTR\)](#)

[Response Time Reporter \(RTR\) enhancements](#)

[Reverse Route Injection \(RRI\)](#)

[RFC 1483 Bridging on FlexWAN](#)

[RFC 1483 for Token Ring Networks](#)

[RFC-1483 Bridging](#)

[RFC-1483 Bridging Quality of Service \(QoS\)](#)

[RFC-1490 Bridging](#)

[RGMP - Router-Port Group Management Protocol](#)

[RIF Passthru in DLSw+](#)

[RIP](#)

[RMON events and alarms](#)

[Route Processor Redundancy Plus \(RPR+\)](#)

[RSVP - Resource Reservation Protocol](#)

[RSVP Interface-based Receiver Proxy](#)

[RSVP Refresh Reduction and Reliable Messaging](#)

[RSVP Scalability Enhancements](#)

[RSVP Support for Frame Relay](#)

[RTP Header Compression](#)

[SafeNet IPsec VPN Client Support](#)

[Sampled NetFlow](#)

[Sanity Check](#)

[SCP Health Monitoring for Enhanced-FlexWAN](#)

[SDLC SNRM Timer and Window Size Enhancements](#)

[SDLC-to-LAN conversion \(SDLLC\)](#)

[Secure Copy \(SCP\)](#)

[Secure Shell SSH Version 1 Integrated Client](#)

[Secure Shell SSH Version 1 Server Support](#)

[Secure Shell SSH Version 2 Client Support](#)

[Secure Shell SSH Version 2 Server Support](#)

[Selective Packet Discard \(SPD\)](#)

[Selective Virtual-Access Interface Creation](#)

[Shaping Granularity](#)

[Show Port Capabilities command](#)

[SLB \(Server Load Balancing\)](#)

[SLB: Stateful Failover within Single Chassis](#)

[SLB: Active Standby](#)

[SLB: Alternate IP Addresses](#)

[SLB: Automatic Server Failure Detection](#)

[SLB: Automatic Unfail](#)

[SLB: Backup Server Farms](#)

[SLB: Bind ID Support](#)

[SLB: Client NAT](#)

[SLB: Client-Assigned Load Balancing](#)

[SLB: Content Flow Monitor Support](#)

[SLB: Delayed Removal of TCP Connection Context](#)

[SLB: DFP Agent Subsystem Support](#)

[SLB: DNS Probes](#)

[SLB: Dynamic Feedback Protocol \(DFP\)](#)

[SLB: Enhanced Security](#)

[SLB: Firewall Loadbalancing](#)

[SLB: Global Loadbalancing feedback for Distributed Director](#)

[SLB: GPRS Load Balancing](#)

[SLB: Home Agent Loadbalancing](#)

[SLB: HTTP Probes](#)

[SLB: Interface-Aware](#)

[SLB: Maximum Connections](#)

[SLB: Multiple Firewall Farm Support](#)

[SLB: Multiple Radius Proxy Farms](#)

[SLB: Ping Probes](#)

[SLB: Port-Bound Servers](#)

[SLB: Protocol Support](#)

[SLB: RADIUS Load Balancing](#)

[SLB: RADIUS Load Balancing \(RLB\) IMSI Sticky Database](#)

[SLB: Radius Proxy Loadbalancing](#)

[SLB: Route Health Injection](#)

[SLB: Routed Probes](#)

[SLB: Server NAT](#)

[SLB: Slow Start](#)

[SLB: Stateful Backup](#)

[SLB: Stateless Backup](#)

[SLB: Static NAT](#)

[SLB: Sticky Connections](#)

[SLB: SynGuard](#)

[SLB: TCP Probes](#)

[SLB: TCP Session Reassignment](#)

[SLB: VPN Firewall Loadbalancing](#)

[SLB: VPN Server Load Balancing](#)

[SLB: WebCache Loadbalancing](#)

[SLB: Weighted Least Connections](#)

[SLB: Weighted Round Robin](#)

[SLB: WSP Probes](#)

[Snapshot routing](#)

[SNMP \(Simple Network Management Protocol\)](#)

[SNMP Inform Request](#)

[SNMP Manager](#)

[SNMP Support for BGP Policy Accounting](#)

[SNMP Support for IOS vLAN Subinterfaces](#)

[SNMPv2C](#)

[SNMPv3 \(SNMP Version 3\)](#)

[Source Interface Selection for Outgoing Traffic with Certificate Authority \(CA\)](#)

[Source Specific Multicast \(SSM\)](#)

[Source Specific Multicast \(SSM\) - IGMPv3,IGMP v3lite, and URD](#)

[Source Specific Multicast \(SSM\) Mapping](#)

[SPAN Destination Port Permit List](#)

[Spanning Tree Protocol \(STP\)](#)

[Spanning Tree Protocol \(STP\) - Backbone Fast Convergence](#)

[Spanning Tree Protocol \(STP\) - Loop Guard](#)

[Spanning Tree Protocol \(STP\) - Portfast](#)

[Spanning Tree Protocol \(STP\) - PortFast BPDU Filtering](#)

[Spanning Tree Protocol \(STP\) - PortFast BPDU Guard](#)

[Spanning Tree Protocol \(STP\) - Portfast Support for Trunks](#)

[Spanning Tree Protocol \(STP\) - Root Guard](#)

[Spanning Tree Protocol \(STP\) - Uplink Fast Convergence](#)

[Spanning Tree Protocol \(STP\) - Uplink Load Balancing](#)

[Spanning Tree Protocol \(STP\) Extension](#)

[SRB - Source-Route Bridging](#)

[SRB over Frame Relay](#)

[SRR \(Shaped Round Robin\)](#)

[SSO - ATM](#)

[SSO - Frame Relay](#)

[SSO - HDLC](#)

[SSO - Multilink PPP \(MLP\)](#)

[SSO - PPP](#)

[Standard IP Access List Logging](#)

[Standby Supervisor Port Usage](#)

[Sticky IP](#)

[Strict Priority Low Latency Queueing \(LLQ\)](#)

[Stub IP Multicast Routing](#)

[STUN \(Serial Tunnel\)](#)

[Sub Interface Features - Phase 1](#)

[Subinterface to EoMPLS VC Mapping](#)

[Subnetwork Bandwidth Manager \(SBM\)](#)

[Support for 4096 VLAN IDs](#)

[Switch Port Analyzer \(SPAN\)](#)

[Switched Multimegabit Data Service \(SMDS\)](#)

[Synchronous Data Link Control \(SDLC\)](#)

[Tacacs SENDAUTH function](#)

[Tacacs Single Connection](#)

[TACACS+](#)

[TCP Intercept](#)

[Time-Based Access Lists Using Time Ranges](#)

[TN3270](#)

[Token Ring ISL](#)

[Top-N Reports](#)

[Transparent Bridging](#)

[Triggered RIP](#)

[Trusted boundary \(extended trust for CDP devices\)](#)

[Trusted Root Certification Authority](#)

[Trustpoint CLI](#)

[Tunnel Type of Service \(TOS\)](#)

[Tunneling of Asynchronous Security Protocols](#)

[UDI - Unique Device Identifier](#)

[UDLR Tunnel ARP and IGMP Proxy](#)

[Uni-Directional Link Routing \(UDLR\)](#)

[Unicast Flood Blocking](#)

[Unicast Reverse Path Forwarding \(uRPF\)](#)

[UniDirectional Link Detection \(UDLD\)](#)

[UniDirectional Link Detection \(UDLD\) - enhancements](#)

[User based \(SA or DA\) QoS](#)

- User Maximum Links
- Using 31-bit Prefixes on IPv4 Point-to-Point Links
- VACL for WAN interfaces/hidden VLANs
- VACL Logging of access denied
- Vendor-Specific RADIUS Attributes
- Verify Certificate Chain Command
- Virtual Interface Template Service
- Virtual Private LAN Services (VPLS)
- Virtual Profile CEF Switched
- Virtual Profiles
- Virtual Router Redundancy Protocol (VRRP)
- Virtual Templates for Protocol Translation
- Virtual Trunking Protocol (VTP) - Pruning
- VLAN 1 disable on trunks
- VLAN Access Control List (VACL)
- VLAN MAC Address Filtering
- VLAN Translation
- VLANs over IP Unnumbered Sub-Interfaces
- Voice over Frame Relay (FRF.11)
- Voice Over IP (VoIP)
- Voice Over IP (VoIP) - configuration of voice daughtercard
- VPNSM Blade-to-Blade Stateful Fail-Over
- VPNSM GRE Acceleration
- VPNSM Multiple Blade Support
- VPNSM QoS Support
- VRF aware IPsec
- VTP (Virtual Trunking Protocol) Version 2
- WCCP Layer 2 PFG Redirection
- WCCP Redirection on Inbound Interfaces
- WCCP Version 1
- WCCP Version 2
- Weighted Fair Queueing (WFQ)
- Weighted RED (WRED)

Some features are dependent on product model, interface modules (i.e. Line Cards & Port Adapters), and/or require a software feature license. [Click](#) here for more information.
© 1992-2008 Cisco Systems, Inc. All rights reserved.
[Terms & Conditions](#) | [Privacy Statement](#) | [Cookie Policy](#) | [Trademarks of Cisco Systems, Inc.](#)



[Close Window](#)

Cisco Feature Navigator

Feature Details

Feature	Description
256+ VLANs	256+ VLAN feature allows the ability for the router to route between more than 256 VLAN interfaces - this feature requires the MSFC2. The routed VLAN interfaces can be chosen from any of the VLANs supported on the switch. Catalyst switches can support up to 4096 VLANs, up to any 1000 can now be selected (for MSFC2). Previously upper limit was VLAN number 1005. If using the MSFC, up to 256 VLANs can be routed, but again can be selected from any VLANs supported on the unit.