

Catalyst 5000 Route Switch Module Cisco IOS Software Release 11.2 (9)P Feature List

Introduction

Cisco IOS™ Release 11.2 (9) for the Catalyst® 5000 route switch module (RSM) brings enhanced functionality to the RSM by adding additional protocols to the existing suite that the RSM currently supports as well as adding transparent bridging and feature licenses. The key features provided in this release are:

- Software support for the Catalyst Versatile Interface Processor 2 (VIP 2) module across all the available images. This new hardware module (which will be available Q4 CY'97) provides additional media support for the Catalyst 5000 family. The Catalyst 5000 VIP 2 module can be populated with a majority of the port adapters currently available for the Cisco 7500 and Cisco 7200 platforms.
- Introduction of three new images:
 - Cisco IOS Catalyst 5000 RSM—IP w/ VIP feature set SFC5CV-11.2.9P
 - Cisco IOS Catalyst 5000 RSM—IP/IPX/AT/DEC/transparent bridging w/ VIP feature set¹ SFC5BV-11.2.9P
 - Cisco IOS Catalyst 5000 RSM—Enterprise w/VIP feature set SFC5AV-11.2.9P
- Introduction of two new feature licenses:
 - Network Address Translation (NAT)
 - WAN packet feature

IP Image

This image includes the complete IP feature set of the Cisco IOS Release 11.2 (9) release, including:

- Enhanced Interior Gateway Routing Protocol (EIGRP)
- Enhanced IGRP Optimizations
- End System-to-Intermediate System (ES-IS)
- IGRP
- Intermediate System-to-Intermediate System (IS-IS)
- Named IP Access Control Lists
- Next Hop Resolution Protocol (NHRP)
- On Demand Routing (ODR)

1. Earlier releases of Cisco IOS for the RSM— IP/IPX/AT/DEC feature set (SFC5B-11.2.7P, SFC5B-11.2.8P)—do not include transparent bridging, VIP 2 support, or support for any of the PLUS feature sets.

- Open Shortest Path First (OSPF)
- OSPF Not So Stubby Areas (NSSA)
- OSPF On Demand Circuit (RFC 1793)
- Protocol Independent Multicast (PIM)
- Policy-based routing
- Routing Information Protocol (RIP)
- RIP Version 2
- NetFlow Feature License

This image is the default image, ships with the RSM, and is included in the base price of the RSM.

IP/IPX/AT/DEC/Transparent Bridging w/ VIP Feature Set

This image² contains support for the following protocols:

- AppleTalk Phase 1 and 2
- Concurrent routing and bridging (CRB)
- DECnet IV
- Generic routing encapsulation (GRE)
- Integrated routing and bridging (IRB)
- IP
- LAN extension host
- Multiring (for Catalyst 5000 VIP 2 Token Ring port adapters)
- Novell IPX
- Transparent bridging

Enterprise Image

This image² contains support for the following protocols:

- Apollo Domain
- AppleTalk Phase 1 and 2
- Banyan VINES
- CRB
- DECnet Phase IV
- DECnet Phase V
- GRE
- IRB
- IP
- LAN extension host
- Multiring (for Catalyst 5000 VIP 2 Token Ring port adapters)
- Novell IPX
- Open System Interconnection (OSI)
- Transparent bridging
- Xerox Network Systems (XNS)

2. The Cisco IOS Release 11.2 (9) of the Enterprise and IP IPX, AT, DEC images for the Catalyst 5000 RSM do not support the IBM feature set. A future release will provide IBM functionality and will be a free upgrade for customers currently ordering these two images.

Catalyst 5000 VIP 2

Cisco IOS Release 11.2 (9) for the RSM supports the addition of one Catalyst 5000 VIP 2 module to each RSM. This VIP 2 module occupies an additional slot in the Catalyst 5000 series chassis and provides hardware support for two port or service adapters. These port adapters are interchangeable with those currently supported on the Cisco 7200 and 7500 series routers with some exceptions. Those port adapters that are currently supported on the Catalyst 5000 VIP 2 are outlined in Table 1. As this list will change as new port adapters are introduced, refer to the latest copy of this Product Bulletin on Cisco Connection Online (CCO) for an updated list.

The Catalyst 5000 VIP 2 supports the following port adapters as of November 1997:

Table 1 Supported Port Adapters

Port Adapter Part Number	Description
PA-4T+	4-port serial port adapter, enhanced
PA-8T-V35	8-port serial, V.35 port adapter
PA-8T-232	8-port serial, RS232 port adapter
PA-8T-X21	8-port serial, X.21 port adapter
PA-4R	4-port Token Ring 4/16-Mbps port adapter
PA-4R-FDX	4-port Token Ring 4/16-Mbps, full-duplex port adapter
PA-F-MM	1-port FDDI multimode port adapter
PA-F-SM	1-port FDDI single-mode port adapter
PA-F/FD-MM	1-port FDDI full-duplex multimode port adapter
PA-F/FD-SM	1-port FDDI full-duplex single-mode port adapter
PA-A1-OC3SM	1-port ATM OC-3 single-mode intermediate-reach port adapter
PA-A1-OC3MM	1-port ATM OC-3 multimode port adapter
PA-2CT1/PRI	2-port channelized T1/PRI port adapter
PA-2CE1/PRI-75	2-port channelized E1/PRI port adapter, 75 ohm
PA-2CE1/PRI-120	2-port channelized E1/PRI port adapter, 120 ohm
SA-COMP/1	Service adapter; compression (64 VCs Stac)
SA-COMP/4	Service adapter; compression (256 VCs Stac)
PA-4E	4-port Ethernet 10BaseT port adapter
PA-8E	8-port Ethernet 10BaseT port adapter
PA-5EFL	5-port Ethernet 10BaseFL port adapter
PA-H	1-port HSSI port adapter ¹

1. The HSSI port adapter is only supported in the Catalyst 5500 with a maximum of 2 HSSI port adapters per 5500 chassis. The HSSI port adapter is not supported in any other Catalyst chassis.

New Feature Licenses

Cisco IOS Release 11.2 (9) for the RSM supports the addition of two new feature licenses in addition to the NetFlow feature and InterDomain routing licenses:

Network Address Translation

NAT provides either static or dynamic IP address translation mechanisms between private and public networks. Installed on RSMs that connect a private network with an outside domain, NAT translates internal IP addresses to "legal" addresses before sending traffic onto a public network. This feature conserves limited IP addresses because multiple intranets can use the same IP address range. It does not require a registered subnet address, so it eliminates host renumbering, saving time and maintenance costs. NAT protects network security, because private networks with NAT do not advertise internal addresses or topology over public networks.

WAN Packet Feature (WPPF)

WAN packet feature provides support for ATM Data Exchange Interface (DXI), Frame Relay, Frame Relay switching, Frame Relay switched virtual circuit (SVC) support (data terminal equipment [DTE]), Frame Relay traffic shaping, Switched Multimegabit Data Service (SMDS) over Asynchronous Transfer Mode (ATM), X.25, and X.25 switching

Ordering Information

Cisco IOS Release 11.2 (9) for the Catalyst 5000 RSM software product is available immediately.

SMARTnet Customers

Update

SMARTnet™ customers are entitled to a software update, which is described as a new release version of the customer's last purchased feature set. Customers wanting increased functionality must upgrade to the new feature set.

Upgrade

Cisco facilitates SMARTnet customers to get upgrades more expeditiously through CCO. Customers upgrading from one feature set to another, must place orders for the purchase of the appropriate Technology Use or Feature Licenses before downloading the software.

Non-SMARTnet Customers

Upgrades

Customers increasing the level of functionality beyond their current feature set must order a software product code along with any appropriate feature licenses.

Downloading Cisco IOS Software Release 11.2 (9) from CCO

Registered CCO users can download Cisco IOS Release 11.2 (9) for the Catalyst 5000 RSM at <http://cco.cisco.com>.

Customers eligible for software upgrades under warranty who do not have service contracts must contact the TAC at 800 553-2447 or at tac-dispatch@cisco.com.



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