Virtual LANS Features Roadmap

This roadmap lists the features documented in the *Virtual LANs* modules in which they appear.

Roadmap History

This roadmap was first published April 20, 2006 and last updated on April 20, 2006.

Features and Release Support

Table 1 lists Virtual LANs feature support for the following Cisco IOS software release trains:

- Cisco IOS Releases 12.0, 12.1, 12.2, 12.3, and 12.3T

Only features that were introduced or modified in Cisco IOS Release 12.0 (1) or a later release appear in the table. *Not all features may be supported in your Cisco IOS software release*.

Use Cisco Feature Navigator to find information about platform support and Cisco IOS and Catalyst OS software image support. To access Cisco Feature Navigator, go to http://www.cisco.com/go/cfn. An account on Cisco.com is not required.

Note Table 1 lists only the Cisco IOS software release that introduced support for a given feature in a given Cisco IOS software release train. Unless noted otherwise, subsequent releases of that Cisco IOS software release train also support that feature.

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Table 1 Supported Network Address Translation Features

Release	Feature Name	Feature Description	Where Documented
Cisco IOS Releases 12.0, 12.1, 12.2, 12.3, and 12.3T			
12.0(7)XE 12.1(5)T 12.2(2)DD 12.2(4)B 12.2(8)T 12.2(13)T	VLAN Range	Using the VLAN Range feature, you can group VLAN subinterfaces together so that any command entered in a group applies to every subinterface within the group. This capability simplifies configurations and reduces command parsing.	Configuring Routing Between VLANs • Configuring a Range of VLAN Subinterfaces, page 323
	Configuring Routing Between VLANs with IEEE 802.1Q Encapsulation	The IEEE 802.1Q protocol is used to interconnect multiple switches and routers, and for defining VLAN topologies. The IEEE 802.1Q standard is extremely restrictive to untagged frames. The standard provides only a per-port VLANs solution for untagged frames. For example, assigning untagged frames to VLANs takes into consideration only the port from which they have been received. Each port has a parameter called a *permanent virtual identification* (Native VLAN) that specifies the VLAN assigned to receive untagged frames.	Configuring Routing Between VLANs • Configuring Routing Between VLANs with IEEE 802.1Q Encapsulation
	Configuring Routing Between VLANs with Inter-Switch Link Encapsulation	ISL is a Cisco protocol for interconnecting multiple switches and maintaining VLAN information as traffic goes between switches. ISL provides VLAN capabilities while maintaining full wire speed performance on Fast Ethernet links in full- or half-duplex mode. ISL operates in a point-to-point environment and will support up to 1000 VLANs. You can define virtually as many logical networks as are necessary for your environment.	Configuring Routing Between VLANs • Configuring Routing Between VLANs with Inter-Switch Link Encapsulation
	Configuring Routing Between VLANs with IEEE 802.10 Encapsulation	AppleTalk can be routed over VLAN subinterfaces using the ISL or IEEE 802.10 VLANs feature that provides full-feature Cisco IOS software AppleTalk support on a per-VLAN basis, allowing standard AppleTalk capabilities to be configured on VLANs.	Configuring Routing Between VLANs • Configuring Routing Between VLANs with IEEE 802.10 Encapsulation

Table 1 Supported Network Address Translation Features (continued)

Release	Feature Name	Feature Description	Where Documented
12.3(8)T4	Cisco HWIC-4ESW and HWIC-D-9ESW EtherSwitch Interface Cards	Cisco EtherSwitch HWICs are 10/100BASE-T Layer 2 Ethernet switches with Layer 3 routing capability. (Layer 3 routing is forwarded to the host and is not actually performed at the switch.) Traffic between different VLANs on a switch is routed through the router platform. Any one port on a Cisco EtherSwitch HWIC may be configured as a stacking port to link to another Cisco EtherSwitch HWIC or EtherSwitch network module in the same system. An optional power module can also be added to provide inline power for IP telephones. The HWIC-D-9ESW HWIC requires a double-wide card slot.	Cisco HWIC-4ESW and HWIC-D-9ESW EtherSwitch Interface Cards
12.2(2)XT 12.2(8)T 12.2(15)ZJ 12.3(4)T	EtherSwitch Module	The EtherSwitch network module is supported on Cisco 2600 series, Cisco 3600 series, and Cisco 3700 series routers. The EtherSwitch network module is a modular, high-density voice network module that provides Layer 2 switching across Ethernet ports. The EtherSwitch network module has sixteen 10/100 switched Ethernet ports with integrated inline power and QoS features that are designed to extend Cisco AVVID-based voice-over-IP (VoIP) networks to small branch offices.	EtherSwitch Network Module
12.3(2)XC	Managed VLAN Switch	The Managed LAN Switch feature enables the control of the four switch ports in Cisco 831, 836, and 837 routers. Each switch port is associated with a Fast Ethernet interface.	Managed LAN Switch
12.3(7)T 12.3(7)XI1	IEEE 802.1Q-in-Q VLAN Tag Termination	Encapsulating IEEE 802.1Q VLAN tags within 802.1Q enables service providers to use a single VLAN to support customers who have multiple VLANs. The IEEE 802.1Q-in-Q VLAN Tag Termination feature on the subinterface level preserves VLAN IDs and keeps traffic in different customer VLANs segregated.	Configuring Routing Between VLANs • Configuring IEEE 802.1Q-in-Q VLAN Tag Termination, page 350

This module first published April 25, 2006. Last updated April 25, 2006.