

# Cisco IOS Software Release 12.2(2)XQ



## Introduction

This product bulletin describes the new features introduced in Cisco IOS<sup>®</sup> Software Release 12.2(2)XQ1.

### New Features:

Since it is critical for business class DSL to provide highest voice and data quality, 12.2(2)XQ1 is an early deployment (ED) release that is targeted at customers who intend to deploy asymmetric digital subscriber line (ADSL) services that offer much-improved voice and data quality on the Cisco 1700 Series Routers that include 1720, 1750, and 1751 Modular Access Router with the ADSL WAN Interface card.

This much-improved voice and data quality over ADSL is achieved through enhanced Quality of Service (QoS) features for the ADSL WAN Interface Card for Cisco 1720, 1750 and 1751 Modular Access Router.

The enhanced Quality of Service is offered through mapping of the following IP QoS (Quality of Service) to ATM CoS (Class of Service) features:

1. Low Latency Queuing (LLQ) (also called Priority Queuing/Class Based Weighted Fair Queuing (PQ/CBWFQ))
2. Differentiated Services (class-based marking)
3. Committed Access Rate (CAR) (ip and dscp precedence aware)
4. Weighted Random Early Detection (WRED) (ip and dscp precedence aware)

These features are supported

- On a per Virtual Circuit (VC) base (mixing voice and data)
- With VC bundle
- In process switch, fast switch, and Cisco Express Forwarding (CEF) (for DiffServ and CAR) modes.
- Multilink PPP (MLPPP) using Link Fragmentation and Interlinking (LFI) over ATM is supported on a single virtual circuit on the ATM interface card, and in process switch and fast switch mode.

This release delivers support for all Cisco 1700 series router platforms including Cisco 1720, 1750, 1750-2V, 1750-4V, 1751, and 1751-V.

Maintenance for these features will be available on future 12.2X special releases until the code is incorporated into the fifth maintenance software release of 12.2T.



## Detailed Information:

For more detailed information about the platforms and features of Release 12.2(2)XQ1, reference the following document: Release Notes for Cisco 1700 series platforms for Cisco IOS Release 12.2(2) XQ1 at: <http://www.cisco.com/univercd/cc/td/doc/product/software/ios122/122relnt/1700/1700xq/index.htm>

## Life Span:

12.2(2) XQ1 will be sold until the fifth release of Cisco IOS Software 12.2T is released.

## Support:

Cisco IOS Software 12.2(2)XQ1 is supported by the Cisco Systems Product Support Policy found at the following URL: <http://www.cisco.com/warp/customer/437/27.html>

## Supported Hardware Platforms:

Cisco IOS Software Release 12.2(2)XQ1 supports all Cisco 1720, 1750, and 1751 Modular Access Routers.

Product Numbers and Descriptions are given below:

Software Product Description	Product Code	S/W Image	Support for Enhanced QoS on ADSL WIC	Min. Flash	Min. DRAM
IP/ADSL	S17C7-12202Q1 S17C7-12202XQ=	c1700-y7-mz	No	8	32
IP/ADSL Plus	S17C7P-12202Q1 S17C7P-12202Q1=	c1700-sy7-mz	Yes	8	32
IP/ADSL Plus IPSec 56	S17C7K8-12202Q1 S17C7K8-12202Q1=	c1700-k8sy7-mz	Yes	8	32
IP/ADSL/FW/IDS Plus IPSec 56	S17C7HK8-12202Q1 S17C7HK8-12202Q1=	c1700-k8o3sy7-mz	Yes	8	32
IP/ADSL/IPX/FW/IDS Plus	S17B7HP-12202Q1 S17B7HP-12202Q1=	c1700-no3sy7-mz	Yes	8	32
IP/ADSL Plus IPSec 3DES	S17C7K9-12202Q1 S17C7VK9-12202Q1=	c1700-k9sy7-mz	Yes	8	32
IP/ADSL/FW/IDS Plus IPSec 3DES	S17C7HK9-12202Q1 S17C7HK9-12202Q1=	c1700-k9o3sy7-mz	Yes	8	32
IP/ADSL/IPX/AT/IBM Plus	S17Q7P-12202Q1 S17Q7P-12202Q1=	c1700-bnr2sy7-mz	Yes	16	48
IP/ADSL/IPX/AT/IBM/FW/ IDS Plus IPSec 56	S17Q7HK8-12202Q1 S17Q7HK8-12202Q1=	c1700-bk8no3r2sy7-mz	Yes	16	48
IP/ADSL/IPX/AT/IBM/FW/ IDS/Plus IPSec 3 DES	S17Q7HK9-12202Q1 S17Q7HK9-12202Q1=	c1700-bk9no3r2sy7-mz	Yes	16	48
IP/ADSL/VOICE Plus	S17C7VP-12202Q1 S17C7VP-12202Q1=	c1700-sv3y7-mz	Yes	16	48

Software Product Description	Product Code	S/W Image	Support for Enhanced QoS on ADSL WIC	Min. Flash	Min. DRAM
IP/ADSL/VOICE Plus IPSec 56	S17C7VK8-12202Q1 S17C7VK8-12202Q1=	c1700-k8sv3y7-mz	Yes	16	48
IP/ADSL/VOICE/FW/IDS Plus	S17C7HV-12202Q1 S17C7HV-12202Q1=	c1700-o3sv3y7-mz	Yes	16	48
IP/ADSL/VOICE/FW/IDS Plus IPSec 56	S17C7HVK8-12202Q1 S17C7HVK8-12202Q1=	c1700-k8o3sv3y7-mz	Yes	16	48
IP/ADSL/IPX/VOICE/FW/IDS Plus	S17B7HPV-12202Q1 S17B7HPV-12202Q1=	c1700-no3sv3y7-mz	Yes	16	48
IP/ADSL/VOICE Plus IPSec 3DES	S17C7VK9-12202Q1 S17C7VK9-12202Q1=	c1700-k9sv3y7-mz	Yes	16	48
IP/ADSL/VOICE/FW/IDS Plus IPSec 3DES	S17C7HVK9-12202Q1 S17C7HVK9-12202Q1=	c1700-k9o3sv3y7-mz	Yes	16	48
IP/ADSL/IPX/AT/IBM/VOICE/FW/IDS Plus IPSec 56	S17Q7HVK8-12202Q1 S17Q7HVK8-12202Q1=	c1700-k8bno3r2sv3y7-mz	Yes	16	48
IP/ADSL/IPX/AT/IBM/VOICE/FW/IDS Plus IPSec 3DES	S17Q7HVK8-12202Q1 S17Q7HVK8-12202Q1=	c1700-k9bno3r2sv3y7-mz	Yes	16	48

Images are available for downloading from CCO on September 4, 2001.

First customer shipment (FCS) is on September 17, 2001

NOTE: 12.2(2)XQ was renumbered to 12.2(2)XQ1



Corporate Headquarters  
Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
www.cisco.com  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 526-4100

European Headquarters  
Cisco Systems Europe  
11, Rue Camille Desmoulins  
92782 Issy Les Moulineaux Cedex 9  
France  
www.cisco.com  
Tel: 33 1 58 04 60 00  
Fax: 33 1 58 04 61 00

Americas Headquarters  
Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
www.cisco.com  
Tel: 408 526-7660  
Fax: 408 527-0883

Asia Pacific Headquarters  
Cisco Systems Australia, Pty., Ltd  
Level 17, 99 Walker Street  
North Sydney  
NSW 2059 Australia  
www.cisco.com  
Tel: +61 2 8448 7100  
Fax: +61 2 9957 4350

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