

Cisco 675 SOHO/Telecommuter ADSL Router

THE CISCO 675 SMALL OFFICE HOME OFFICE (SOHO)/TELECOMMUTER ASYMMETRIC DIGITAL SUBSCRIBER LINE (ADSL) ROUTER IS DESIGNED TO OFFER COST-EFFECTIVE HIGH-SPEED SERVICES TO SMALL HOME OFFICES AND WORK-AT-HOME USERS. THE CISCO 675 PROVIDES A COMPACT DESIGN AND A LOW-COST, SPLITTERLESS, NO-TRUCK-ROLL SOLUTION. IT IS PART OF THE LEADING CISCO ARCHITECTURE THAT PROVIDES A PATH TO NEW WORLD SERVICES. THE CISCO 675 PROVIDES ACCESS TO HIGH-SPEED AND SECURE INTERNET AND CORPORATE SERVICES THROUGH A ROBUST ROUTING, TRANSPARENT BRIDGING, AND PPP/ATM FEATURE SET.

Cisco 675 Overview

The Cisco 675 provides a 10/100BaseT interface for connection to a small, home-office LAN or a single Ethernet-equipped PC. The Cisco 675 supports a robust routing feature set for seamless integration of ADSL service into corporate or home LANs and WANs. A built-in Dynamic Host Configuration Protocol (DHCP) server automatically assigns IP addresses to PCs on the LAN, and with Port Address Translation (PAT) these PCs can share a single IP address. In addition, with Cisco EZ-DSL no-truck-roll technology, basic telephone service splitters are not required at the premise, thus reducing the cost of installation.

Features

Physical Interfaces

- Rate-adaptive DSL (CAP encoding) interface, with maximum receive data rates up to 7 Mbps and transmit data rates up to 1 Mbps
- ADSL physical connection supports ATM adaptation layer 5 (AAL5) encapsulation
- Autonegotiating 10BaseT or 100BaseTX Ethernet interface
- Local initialization/configuration through RJ-45 serial port
- Filtered phone port for convenient connection of a phone to the modem in splitter-less environments
- Status LEDs indicating power/alarm, ADSL connectivity and activity, and Ethernet connectivity and activity
- Utilizes Cisco EZ-DSL technology to deliver full Rate Adaptive Digital Subscriber Line (RADSL) rates without truck roll to the premise
- Fully compatible with Cisco 6100 and Cisco 6200 series advanced digital subscriber line access multiplexers (advanced DSLAM)

Routing and Bridging Support

- IP routing (PPP over ATM and RFC 1483)
- Supports null-encapsulated PPP over AAL5
- PAT support for conservation of registered IP addresses
- Dynamic Host Configuration Protocol (DHCP) server and client support for dynamic IP address allocation
- DHCP relay agent support
- Optional support for IP address and subnet mask assignment via IP Control Protocol (IPCP)
- Support for multiple IP addresses on the Ethernet interface
- Multicast proxy support (IGMP Proxy) for support of video applications
- Transparent bridging (RFC 1483) support
- Managed bridge support for remote configuration and management

Configuration, Management, and Security

- Remote management with Telnet or HTML browser interface
- Trivial File Transfer Protocol (TFTP) support for software updates and configuration downloads/uploads
- Cisco Commander user-based graphical user interface for connecting and monitoring the DSL link
- RADIUS and SYSLOG support for remote status monitoring
- Simple Network Management Protocol (SNMP) Management Information Base (MIB) support
- PPP user authentication protocol (PAP)
- Multilevel password protection

Figure 1 Cisco 675 SOHO/Telecommuter ADSL Router



Options

- Basic telephone service splitter—an optional passive splitter provides simultaneous analog voice and high-speed data on a single twisted-pair phone line
- EZ-DSL inline and wall-mount microfilters for splitterless installations

Hardware Specifications

Dimensions	5.0 x 6.2 x 1.75 in. (12.7 x 15. x 4.5 cm)
Weight	1.5 lb
LAN Interface	10BaseT/100BaseT Ethernet, half-duplex RJ-45 connector
ADSL Interface	RADSL, CAP encoding RJ-11 connector
Local Serial Interface	RJ-45
Data Rate	CAP ADSL <ul style="list-style-type: none"> • Downstream Speed Range: 256 Kbps to 7168 Kbps • Upstream Speed Range: 90.667 Kbps to 1088 Kbps • Increments: See the following table for valid downstream/upstream rate combinations
Phone Interface	RJ-11 connector with built in EZ-DSL microfilter (North American version only)
Software Upgrade	Via built-in Flash ROM
Power Requirements	5V DC @ 1.2 Amps
Operating Requirements	Temperature: 32 to 104 F (0 to 40 C) Humidity: 5 to 90% (noncondensing)
Regulatory Approvals and Compliance	FCC Part 15, Subpart B, 1997; CSA; and UL 1950 3rd Edition
LED Indicators	LAN indicator: connection and activity ADSL indicator: connection and activity Power indicator

CAP Data Rates Supported

Downstream Rate (Kbps)	Upstream Rate (Kbps)							
	1088	952	816	680	544	408	272	90.667
7168	X	X		X		X		
6272	X	X		X		X		
5120	X	X		X		X		
4480	X	X		X		X		
3200	X	X		X		X		
2688	X	X		X		X		
2560	X	X	X	X	X	X	X	X
2240	X	X	X	X	X	X	X	X
1920	X	X	X	X	X	X	X	X
1600	X	X	X	X	X	X	X	X
1280	X	X	X	X	X	X	X	X
1024	X	X	X	X	X	X	X	
960	X	X	X	X	X	X	X	X
896	X	X	X	X	X	X	X	
768	X	X	X	X	X	X	X	
640	X	X	X	X	X	X	X	
512	X	X	X	X	X	X	X	
384	X	X	X	X	X	X	X	
256	X	X	X	X	X	X	X	

Legend: Valid upstream/downstream combinations are indicated by an X

Software Specifications

Software Options

- Single-user
- Multi-user

Standards Compliance

- ATM Forum UNI Version 3.1 PVC
- IEEE 802.3 and 802.3u 10BaseT and 100BaseTX physical layer specification

Routing and Bridging Support

- IETF RFC 2364 Point-to-Point Protocol (PPP)
- IETF RFC 1483 encapsulation over AAL5
- IP (RFC 791)
 - UDP (RFC 792)
 - ICMP (RFC 791)
 - ARP (RFC 826)
 - RIP version 1 and RIP version 2 updating of routing tables
- Static routing
- Port Address Translation (PAT)
- Dynamic Host Configuration Protocol (DHCP) server and client (RFC 2131, RFC 2132)
- DHCP Relay Agent (RFC 1542)
- IEEE 802.1d transparent learning bridging

Management

- RADIUS security and accounting (RFC 2058, RFC 2059)
- HTML browser interface
- Command-line interface
- Cisco Commander Graphical User Interface (GUI)
- Telnet
- TFTP
- SNMP MIB support (MIB-II, PPP MIB, spanning tree MIB, enterprise MIB)
- PAP
- Multilevel password protection



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