Technical Information

Cisco 800 IDSL Routers
Business-Class IDSL Access Through the Power of Cisco IOS Technology

THE CISCO 800 IDSL ROUTERS WITH CISCO IOS TECHNOLOGY PROVIDE BUSINESS-CLASS IDSL (ISDN DIGITAL SUBSCRIBER LINE) SERVICE TO SMALL OFFICES AND CORPORATE TELECOMMUTERS. IDSL PROVIDES USERS WITH A DEDICATED, ALWAYS-ON HIGH-SPEED CONNECTION UP TO 144 KBPS WITHOUT HAVING TO DIAL IN OR EXPERIENCE DROPPED CALLS. BECAUSE IDSL EXTENDS THE REACH OF DSL CONNECTIVITY UP TO 36,000 FEET FROM THE SERVICE PROVIDER CENTRAL OFFICE, IT IS PARTICULARLY SUITABLE FOR OFFICES WHICH ARE LOCATED OUTSIDE THE RANGE FOR ADSL OR SDSL SERVICE.

The Cisco 800 IDSL router with Cisco IOS technology provides key features that enable service providers to offer managed network services for increased revenue opportunities. Service providers can offer differentiated levels of service, such as managed network security and virtual private networks (VPNs).

Cisco 800 IDSL Benefits

The Cisco 800 IDSL router with Cisco IOS technology leverages the expertise and leadership of Cisco Systems to provide secure and reliable routing solutions for small offices and telecommuters who access the Internet or corporate networks.

- *High-Speed Access*—The Cisco 800 IDSL router supports IDSL data access at rates up to 144 kbps. An advanced RISC processor architecture offers a 4:1 compression ratio for throughput up to 512 kbps.
- *Enhanced Security*—The Cisco 800 IDSL router brings enhanced security features to the small office and corporate telecommuter, including optional features such as an integrated stateful firewall and IPSec encryption to enable virtual private networks.

- *Low Deployment and Operational Costs*—Because the Cisco 800 IDSL router incorporates the same Cisco IOS technologies used by service providers and enterprises, existing knowledge of Cisco IOS software can be leveraged to reduce training costs when configuring, installing, and deploying Cisco 800 IDSL routers. In addition, service providers can take advantage of the Cisco Configuration Express Internet commerce application for cost-effective, high-volume deployment of pre-configured routers. The world class support offered by the Cisco Technical Assistance Center (TAC) provides unparalleled support services.
- *Proven Reliability*—Small offices can depend on the Cisco 800 IDSL router day after day, year after year. It runs on the same Cisco IOS software which powers 80% of the Internet and most corporate networks, delivering the most proven reliability for business customers.
- *Safe Investment*—The Cisco 800 IDSL router offers field-upgradable memory so the latest networking features can be added when necessary. An advanced processor and memory architecture mean the Cisco 800 IDSL series can support future applications as customers' networking needs expand.

Product Models

Model	Ethernet LAN	WAN	Analog Telephone Ports	Console Port
Cisco 802 IDSL	One 10BaseT (RJ-45)	One IDSL U, integrated NT1 (RJ-45)	None	RJ-45
Cisco 804 IDSL	10BaseT (RJ-45) 4-port hub	One IDSL U, integrated NT1 (RJ-45)	2(RJ-11)	RJ-45

Cisco 800 IDSL Features and Benefits

Feature	Benefit
High-Speed Access	
Compression up to 4:1 ratio	• Effective throughput of up to 512 kbps
Selectable speed settings (64 kbps, 128 kbps, 144 kbps)	• Allows service providers to offer differentiated service levels
WAN Interface	
Compatible with Adtran, Alcatel, Cisco, Copper Mountain, Lucent, Nokia, Paradyne, Pulsecom, and all standards-based IDSL DSLAMs	• Easy to deploy into existing network infrastructure
Works through Digital Loop Carriers with distances up to 36,000 feet	• Extend reach to increase subscriber base
WAN Performance	
Constant Internet connection	• Allows multiple users to connect to the Internet simultaneously, saving time and money for businesses with numerous heavy users who need instant access
Choice of Encapsulation (PPP, Frame Relay)	• Ensures compatibility with existing network
LAN Interface	
One Ethernet 10BaseT port (802-IDSL)	• Connect to a single PC or Ethernet hub
Integrated 4-port Ethernet hub (804-IDSL)	• Integrated solution for small office
Security	
Standard Security	
PAP, CHAP, and Extended Access Control Lists	• Protects network resources from unauthorized access
Network address translation	• Keeps local IP addresses hidden from the outside world
Enhanced Security	

Cisco IOS Firewall
  – Context Based Access Control Lists (CBAC)
  – Java Blocking
  – Real Time Audit and Alerts
  – Denial of Service
	• Offers internal users secure, per-application-based, stateful access control. CBAC differentiates Cisco IOS Firewall from other non-stateful, basic firewalls
	• Defends and protects router resources against denial-of-service attacks
	• Checks packet headers, dropping suspicious packets
	• Protects against unidentified, malicious Java applets
	• Details transactions for reporting on a per-application, per-feature basis

IPSec Encryption 56 bit DES, L2TP Tunneling	• Ensures confidential data integrity and data origin authenticity while traversing the Internet by using standards-based encryption • Provides encryption for all users on the LAN without configuring individual PCs

Feature	Benefit
Low Deployment and Operational Costs	
Proven and familiar Cisco IOS Technology	• Allows customers to leverage existing knowledge of Cisco IOS software for installation and manageability
Cisco Configuration Express	• Allows service providers to order and configure routers that are shipped directly to customers, reducing costs for warehousing, shipping, and manually configuring the devices.
World-class support	• Helps customers keep their Cisco 800 IDSL routers up and running
Simplified Set Up and Installation	
Network address translation	• Lets businesses conserve valuable IP addresses by hiding internal IP addresses from public networks • Reduces time and costs by easing IP address management
Cisco IOS Easy IP	• Enables true mobility, as client IP addresses are transparently configured via the Cisco IOS DHCP server each time a client powers up
Color-coded ports and cables and Quick Start reference guide	• Helps users make proper connections • Provides easy-to-follow installation instructions
Proven Reliability	
Cisco IOS technology	• Offers proven technology used throughout the Internet and most corporate networks
Management	
Simple Network Management Protocol (SNMP)	• Remote management and monitoring via SNMP or Telnet and local management via console port
Safe Investment	
Field-expandable memory	• Allows customers to add features as networking needs expand
Advanced processor and memory architecture	• Ensures the platform can support processor-intensive applications

Cisco 800 Series Hardware Specifications

Model	Cisco 802 IDSL	Cisco 804 IDSL
Market	North America	North America
Processor	MPC 850	MPC 850
Speed	33 MHz	33 MHz
Default DRAM[1] memory	4 MB	4 MB
Maximum DRAM memory	12 MB	12 MB
Default Flash[2] memory	8 MB	8 MB
Maximum Flash memory	12 MB	12 MB
NT1	Yes	Yes
Ethernet	One 10BaseT	4-port 10BaseT hub
Console	RJ-45	RJ-45
Led	12	16

Model	Cisco 802 IDSL	Cisco 804 IDSL
Support for Kensington-style physical lock	Yes	Yes
Stackable	Yes	Yes
Crossover hub switch	Yes	Yes
Power supply	External/universal	External/universal

Note:

1. DRAM must be obtained from Cisco Systems.

2. Additional flash memory is Intel "Mini-Card" technology.

Cisco IOS Software Feature Sets

A choice of three Internet DSL software feature sets is available for the 802 IDSL and 804 IDSL models. The feature sets support the following:

Internet DSL

Internet DSL VPN (Firewall/IPSec)

Internet DSL IPX/Firewall/IPSec

Table 1 Cisco 802 IDSL and 804 IDSL Software Feature Sets

Cisco IOS Release Feature Set	Cisco 800 IDSL Memory Requirements	
	Flash	DRAM
Internet DSL	8 MB	4 MB
Internet DSL VPN (Firewall/IPSec)	8 MB	8 MB
Internet DSL IPX/Firewall/IPSec	8 MB	8 MB

Table 2: Protocols and Features Supported by Cisco 802 IDSL and 804 IDSL Software Feature Sets

Basic Protocols/Features	Internet DSL	Internet DSL VPN (Firewall/IPSec)	Internet DSL IPX /Firewall/IPSec
LAN			
Transparent Bridging	X	X	X
IP	X	X	X
NetBIOS Access Lists, Name Caching	X	X	X
IPX			X
Filtering	X	X	X

Basic Protocols/Features	Internet DSL	Internet DSL VPN (FirewalI/IPSec)	Internet DSL IPX /FirewalI/IPSec
WAN			
Stac Compression	X	X	X
Frame Relay	X	X	X
HDLC	X	X	X
Selectable Speed Settings up to 144 kbps	X	X	X
Routing			
IPX WAN			X
RIP, RIPv2	X	X	X
Triggered RIP	X	X	X
Enhanced Security			
IOS Firewall		X	X
Context Based Access Control Lists		X	X
Java Blocking		X	X
Denial of Service Detection		X	X
Real time alerts		X	X
IPSec Encryption w/56-bit DES		X	X
Basic Security			
Extended Access Control Lists	X	X	X
Token Card Authentication	X	X	X
PAP, CHAP	X	X	X
Local Password	X	X	X
NAT (including one to one and many to many)	X	X	X
Static Translation	X	X	X
WAN Optimization			
Weighted Fair Queuing	X	X	X
IPX and SPX Spoofing			X
Stac Compression	X	X	X
Ease of Use & Deployment			
Configuration Express	X	X	X
Easy IP Phase I and II	X	X	X
IPCP (Including Address Negotiations)	X	X	X

Basic Protocols/Features	Internet DSL	Internet DSL VPN (Firewall/IPSec)	Internet DSL IPX /Firewall/IPSec
DHCP Server	X	X	X
TFTP Client/Server	X	X	X
Management			
SNMP Proxy Management (read only)	X	X	X
Telnet, Console Port	X	X	X
Monitor Tool	X	X	X
Performance History	X	X	X
Loopback Testing	X	X	X
Interface Statistics	X	X	X
Address Conservation			
NAT and PAT	X	X	X

Physical Specifications

Dimensions (H x W x D)	2.0 x 9.9 x 8.3 in. (5.1 x 24.6 x 21.1 cm)
Weight	Cisco 802 IDSL: 1.42 lb (0.64 kg) Cisco 804 IDSL: 1.45 lb (0.66 kg)
Environmental Specifications	
Temperature	Operating: 0 to 40º C (32 to 104º F) Storage: -20 to 65º C (-4 to 149º F)
Humidity	Operating: 10 to 85% RH
Power Supply	External tabletop power supply: U.S.: 110 VAC, 60 Hz
LEDs	System: OK; NT1, LINE Ethernet: LAN, RXD, TXD Channel 1: CH1, RXD, TXD Channel 2: CH2, RXD, TXD Link: four Ethernet links: LK0, LK1, LK2, LK3 (804-IDSL only) Link LED: back panel (802-IDSL only)
Ethernet Support	Cisco 802 IDSL—One 10BaseT (RJ-45) Cisco 804 IDSL—Four 10BaseT (RJ-45) with external hub/node switch
Regulatory Approvals	CE: IEC EN 41003, EN 60950 FCC Part 15 Class B, Part 68

Contact Information

For more information on the Cisco 800 ISDL, contact:

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Or contact your local Cisco office:

World Wide Web URL: `http://www.cisco.com`

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