



# Cisco SOHO 71 Broadband Router

Secure, shared Internet access for small offices and home offices with the proven reliability and manageability of Cisco IOS software.

The Cisco SOHO 71 router is an Ethernet to Ethernet router that connects to a DSL or cable modem and allows multiple users to share a broadband connection while offering:

- Secure Internet access with manageable stateful firewall
- Simple set up
- Proven reliability and manageability with IOS software

Every business connected to the Internet should be concerned about security, but simple DSL and cable modems do not provide business class protection. Additionally, modems usually allow only single user access. The Cisco SOHO 71 router, recommended for up to five users, allows all users in a small office to share a secure broadband connection with an integrated stateful inspection firewall. Corporate teleworkers and agents can also take advantage of the Cisco SOHO 71 router when using VPN software clients installed on individual PCs to securely connect back to a corporate network. The Cisco SOHO 71 router adds remotely managed firewall protection that protects both the corporate network and the home office from hackers. For all users, the SOHO 71 router is easy to set up with a web based configuration tool and since it runs Cisco IOS software, business of all sizes can take advantage of its proven reliability and manageability.

Table 1 Benefit Overview of Cisco SOHO 71 Broadband Router

Features	Benefit
<b>Shared Broadband Access</b>	• Allows multiple users to share DSL and cable connections with a single IP address
<b>Internet security stateful inspection firewall</b>	• Offers business-class protection from hackers with always-on broadband connections
<b>Supports PC VPN Clients</b>	• Supports teleworkers or multiple agents using VPN client software on their PCs
<b>Plug and play with default settings and web based setup tool</b>	• Nontechnical users can easily set up the router and customize advanced features
<b>Ensure reliability and control with Cisco IOS Software</b>	• Provides business-class operating system for centralized network management, remote troubleshooting, and proven reliability



## Secure Internet Access with Stateful Firewall

The Cisco SOHO 71 Router allows business users to take advantage of a single, affordable, broadband connection with a static or dynamic address for multiuser access (broadband modems provide only single-user access). The Cisco SOHO 71 Router also has a four-port hub for up to four directly connected PCs. An external switch can be added for more than four users.

Broadband DSL and cable connections provide fast access and are always on, so users must ensure that their private business and personal information remains secure. Cisco IOS Software provides many features to enable basic network security features, including access lists for packet filtering, router authentication, and Network Address Translation (NAT). However NAT and simple packet filtering are not enough to provide business-class firewall security. The Cisco SOHO 71 Router provides a built-in Cisco IOS Firewall. This stateful inspection firewall provides more intelligent security by inspecting each packet to determine whether or not entry is permitted. This scenario lets users accomplish their goals, while preventing unauthorized traffic from entering the always-on broadband connection.

Users who need to securely connect to a corporate network over the Internet often require encryption with IPSec for virtual private networks (VPNs). Teleworkers can benefit from the addition of a Cisco SOHO 71 to their home office. Users can use a VPN client on their PC to access the corporate network, and with IPSec pass through supported this connection is seamless to the Cisco SOHO 71 router. When users turn off the VPN client, both the company and the employee benefit from the Cisco IOS Firewall continually protecting the home office. Desired parameters for the Cisco IOS Firewall can be determined and managed remotely by an IT manager or service provider. For customers who prefer the management, visibility, and control of having both the firewall and VPN termination in one device the Cisco 806 Broadband Router can be used. It provides features similar to the Cisco SOHO 71 router with additional firewall features and support for up to ten IP Security Triple Digital Encryption Standard (IPSec 3DES) VPN tunnels terminated on the router itself.

## Simple Setup

### **Easy to Set Up and Deploy with Device Manager and Custom Configuration Service**

The Cisco SOHO 71 Router is shipped with a default setup, providing easy installation for many DSL, cable, and Ethernet scenarios. Depending on the broadband service, customized information may be required. Specific information may be entered into the router by using the Cisco Router Web Set Up tool (CRWS). Users may view this device manager from their PC Web browser, choosing a setup template, entering passwords, defining access lists, and enabling the stateful firewall.

Cisco greatly reduces the cost of deployment at no additional cost for customers who must deploy large numbers of devices with custom configurations. The Cisco Configuration Express service applies configuration templates and unique addresses to each router, then ships the router directly to each user/installer. Service providers, system integrators, and enterprises utilize Cisco Configuration Express to eliminate product logistics and warehousing costs.

### **Proven Reliability and Manageability with Cisco IOS**

The Cisco SOHO 71 Router is based on powerful Cisco IOS technology. The Cisco SOHO 71 Router supports centralized administration and management via Simple Network Management Protocol (SNMP) and Telnet, and local management through the router console port.



Cisco IOS Software is run on most of the routers that make up the Internet, and businesses of all sizes can take advantage of the reliability and manageability benefits. Because Cisco IOS Software is widely used for mission-critical enterprise networks, small business and enterprise teleworkers can also depend on Cisco SOHO and 800 Series routers. The following tables (2-5) list key products features and benefits and product specifications.

Table 2 Key Product Features and Benefits

Key Features	Benefit
<b>Multiusers Access</b>	
NAT/PAT <sup>1</sup>	<ul style="list-style-type: none"> <li>• Creates multiple private IP addresses from a single private IP address</li> <li>• Allows multiple users to share a single broadband connection</li> </ul>
PPPoE <sup>2</sup>	<ul style="list-style-type: none"> <li>• PPPoE encapsulation ensures compatibility with service-provider network requirements</li> </ul>
Four-Port 10-Mbps 10BASE-T Hub	<ul style="list-style-type: none"> <li>• Enables direct connection of up to four PCs, or switch/hub external device</li> <li>• Connects the Cisco ATA 186 Analog Telephone Adaptor to any Ethernet port to turn an analog phone into an IP phone</li> </ul>
DHCP Client	<ul style="list-style-type: none"> <li>• Allows IP addresses to be allocated dynamically</li> </ul>
<b>Security</b>	
Stateful Inspection Firewall (Cisco IOS Firewall Feature Set)	<ul style="list-style-type: none"> <li>• Offers internal users secure, per-application dynamic access control (stateful inspection) for all traffic across perimeters</li> <li>• Detects denial-of-service attacks</li> <li>• Checks packet headers, dropping suspicious packets</li> <li>• Protects against unidentified, malicious Java applets</li> <li>• Details transactions for reporting on a per-application, per-feature basis</li> </ul>
Multiusers IPSec Pass-Through	<ul style="list-style-type: none"> <li>• Allows IPSec tunnels to pass through the router when PC software VPN clients are required (up to 12 PC tunnels)</li> </ul>
Multiusers PPTP <sup>3</sup> Pass-Through	<ul style="list-style-type: none"> <li>• Supports PPTP tunnels, encrypted or unencrypted, initiated at the PC</li> </ul>
Basic Security with Cisco IOS Software, Including: NAT/PAT, Dynamic Access Control Lists, Lock and Key, and Router and Route Authentication	<ul style="list-style-type: none"> <li>• Provides perimeter network security to prevent unauthorized network access</li> </ul>
Security locking slot	<ul style="list-style-type: none"> <li>• Allows physical security of the device</li> </ul>
<b>Enhanced Management Capabilities</b>	
Default Configuration from Factory	<ul style="list-style-type: none"> <li>• Enables easy installation in most cases</li> </ul>
Cisco IOS Software Management	<ul style="list-style-type: none"> <li>• Enables remote management and monitoring via SNMP, Telnet, or HTTP and local management via console port</li> </ul>
Cisco IOS Software Interactive Debug Features	<ul style="list-style-type: none"> <li>• Allow service providers or system administrators to remotely or locally diagnose network problems in detail (for example, via Telnet into the router)</li> </ul>
Cisco Router Web Set Up Tool	<ul style="list-style-type: none"> <li>• Allows nontechnical users to complete installation by simply pointing a browser at the router and providing required information</li> </ul>

1. NAT/PAT = Network/Port Address Translation

2. PPPoE = PPP over Ethernet

3. PPTP = Point-to-Point Tunneling Protocol



Table 3 Hardware Specifications

Hardware Specifications	Cisco SOHO 71
Processor	MPC 855T RISC
Processor Speed	50 MHz
Default/Maximum DRAM Memory	16 MB (not expandable)
Default/Maximum Flash Memory	12 MB (12 MB onboard with 8 MB allocated for IOS)
Ethernet (one port WAN, four ports LAN)	10 Mbps
Console	RJ-45
LEDs	10
Hub/No Hub Connection Switch	Yes
External Power Supply	Universal 100–240 VAC

Table 4 Memory and Software Requirements for the SOHO 71 Router

Cisco SOHO 71 Router IOS Software Image	Cisco SOHO 71 Router Memory	
	Flash	DRAM
IP Firewall with Factory Default Memory Configuration	8 MB	16 MB

Table 5 Cisco SOHO 71 Software Feature Sets

Protocols and Features Supported by Cisco SOHO 71 Software IP Firewall Feature Set	IP Firewall
<b>Routing/Bridging</b>	
PPPoE	X
Transparent Bridging	X
IP	X
Hostname Entry for Some Cable Services	X
<b>Routing Protocols</b>	
RIP <sup>1</sup> , RIPv2	X
IP Policy Routing	X
NetMeeting V.2.10/1,3.01	X
<b>Security</b>	
Route and Router Authentication	X



Table 5 Cisco SOHO 71 Software Feature Sets (Continued)

Protocols and Features Supported by Cisco SOHO 71 Software IP Firewall Feature Set	IP Firewall
PAP <sup>2</sup> , CHAP <sup>3</sup> , Local Password	X
IP Basic and Extended Access Lists	X
Stateful Inspection Firewall	X
Multiuser IPSec Pass-Through (TCP and unencapsulated)	X
Multiuser PPTP Pass-Through	X
<b>Bandwidth Optimization and Management</b>	
Fast Switching	X
STAC Compression	X
<b>Ease of Use and Deployment</b>	
Cisco Router Web Set Up Tool	X
Cisco Configuration Express Service	X
<b>Management</b>	
SNMP, Telnet, Console Port	X
Syslog	X
TFTP <sup>5</sup> Client and Server	X
DHCP <sup>6</sup> Client and Server	X
DHCP Relay	X



Table 5 Cisco SOHO 71 Software Feature Sets (Continued)

Protocols and Features Supported by Cisco SOHO 71 Software IP Firewall Feature Set	IP Firewall
<b>Address Conservation</b>	
NAT Many to One (PAT)	X
NAT Many to Many (Multi-NAT)	X
IPCP <sup>4</sup> Address Negotiation	X
DHCP Client Address Negotiation	X

1. RIP = Routing Information Protocol
2. PAP = Password Authentication Protocol
3. CHAP = Challenge Handshake Authentication Protocol
4. IPCP = IP Control Protocol

## Regulatory and Standards Compliance

This product complies with the following requirements:

### Electromagnetic Compatibility

- EN 55022, 1998 Class B
- CISPR22, 1997 Class B
- CFR47, Part 15, Subpart B, 1995, Class B
- EN61000-3-3
- CISPR24, 1997
- EN 55024:1998

### Safety Certifications

- CSA/NRTL and C approval to UL 1950, 3rd ed./CSA 22.2 No. 950-95, 3rd ed. (USA, Canada)
- ACA/A2LA approval to TS001-1997, AS/NZS 3260 (Australia/New Zealand)
- CB Cert./Report from CSA to IEC 60950 with all country deviations
- CCIB approval to GB4943-9 (China)

## Physical Specifications

### Dimensions and Weight Specifications

- Dimensions (H x W x D): 2.0 x 9.7 x 8.5 in. (5.1 x 24.6 x 21.6 cm)
- Weight: 1.48/1.5 lb (0.67/0.68 kg)

### Environmental Operating Ranges

- Nonoperating temperature: -4 to 149 F (-20 to 65 C)
- Nonoperating humidity: 5 to 95%, relative humidity (noncondensing)
- Nonoperating altitude: 0 to 15,000 ft (0 to 4570m)
- Operating temperature: 32 to 104 F (0 to 40 C)
- Operating humidity: 10 to 85%, relative humidity (noncondensing)
- Operating altitude: 0 to 10,000 ft (0 to 3000m)

### Router Power

- AC input voltage: 100 to 250 VAC, 50 to 60 Hz
- Power consumption: 6 to 10W (idle-maximum consumption)
- Power supply rating: 15



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