



# 3COM® WIRELESS 11N CABLE/DSL FIREWALL ROUTER

802.11n technology enables faster information transfer, wirelessly, over longer ranges



3Com Wireless 11n Cable/DSL Firewall Router

## OVERVIEW

The 3Com® Wireless 11n Cable/DSL Firewall Router delivers significant wireless speed and range improvements over IEEE 802.11g. Its robust and high-speed routing engine and security features allow up to 253 wired and wireless users to share a single broadband connection.

With wireless speeds of up to 300 Mbps, this router—compliant with the IEEE 802.11n draft 2.0 standard and Wi-Fi CERTIFIED™—is able to handle high-bandwidth applications confidently. IP Quality of Service (QoS) helps ensure that critical time-sensitive traffic gets the priority needed for quality communications.

Advanced security features, including 128-bit WPA™/WPA2™ wireless encryption, firewall, hacker pattern detection, VPN IPsec, URL filtering, and IP and MAC address filtering, provide high level protection against hacking and snooping. Easy to set up and use, this product is backed by a two-year hardware warranty.

## KEY BENEFITS

### HIGH-SPEED SHARED WIRED AND WIRELESS CONNECTIVITY

Delivering wireless speeds of up to 300 Mbps, the 3Com Wireless 11n Cable/DSL Firewall Router easily handles large data transfers and Internet downloads, including those from multimedia applications.

This router is backward-compatible with IEEE 802.11b and .11g wireless devices, preserving existing network investments. It is Wi-Fi CERTIFIED and interoperates with other certified Wi-Fi® products.

The 3Com Wireless 11n Cable/DSL Firewall Router has a built-in four-port 10/100 Ethernet LAN switch, which enables up to 253 total (32 wireless) users to securely share a single cable or DSL Internet connection, reducing broadband expenses.

### STANDARDS-BASED FOR INTEROPERABILITY

The 3Com Wireless 11n Cable/DSL Firewall Router uses IEEE 802.11n draft 2.0 technology to deliver significant wireless speed and range improvements over IEEE 802.11g networks. With two external and one internal antennas and advanced Multiple Input Multiple Output (MIMO) technology, the enhanced wireless range of this router helps provides single point coverage in small office and home networking environments, and can eliminate dead spots common with other wireless LANs.

### HIGHLY-EVOLVED SECURITY FEATURES

Advanced wireless security and multiple firewall features offer high levels of protection for the network. To help shield wireless connections, this router provides 128-bit WPA/WPA2



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## KEY BENEFITS (CONTINUED)

with TKIP/AES encryption that encodes and protects information, providing maximum security. For legacy clients, WEP encryption is also supported.

URL filtering, a Stateful Packet Inspection (SPI) firewall with hacker pattern detection and other security features help protect the entire network from attacks and other Internet security risks. Support for initiation and termination of Internet Protocol security (IPSec) tunnels helps enable security between business sites.

### ADVANCED QUALITY OF SERVICE (QOS) FOR QUALITY-SENSITIVE INFORMATION TRANSFER

A unique combination of features helps assure reliable delivery—with no interruption—of delay-sensitive information like voice and video.

### RELIABLE, SIMPLE TO USE AND GREEN

Designed to meet 3Com's proven standards of quality, reliability is assured and supported by a two-year hardware warranty. A browser-based user interface and simple setup wizards ease installation, configuration and administration.

All-in-one design integrates four functions— .11n access point, 4-port switch, firewall and routing—into one product, simplifying deployment.

With the push of a button, Wi-Fi Protected Setup™ (WPS) is easily enabled, automating and simplifying the creation of a secure wireless network. Other features like a Wi-Fi “on-off” button make this product easy-to-use while also reducing power costs.

### SEAMLESS INTEROPERABILITY FOR .11N

3Com offers a variety of compatible 802.11n wireless devices:

- > 3Com Wireless 11n PCI Adapter, **3CRPCIN175**
- > 3Com Wireless 11n USB Adapter, **3CRUSBN175**

## FEATURES AND BENEFITS

### SHARED INTERNET ACCESS

Wired and wireless user support	Enables up to 253 total (32 wireless) users to share a single cable or DSL connection, making the most of your broadband service
Flexible broadband support	Connects to either cable or DSL modems for configuration flexibility

### HIGH-SPEED WIRELESS CONNECTIVITY

802.11n 300 Mbps performance	Delivers connections significantly faster than 802.11g
Backward compatible with 11b/g users	Supports high speeds while protecting existing investments
Multiple Input Multiple Output (MIMO)	Advanced MIMO technology provides enhanced wireless range and coverage area for improved roaming and ubiquity
Packet bursting	Increases throughput by sending more frames in a given time period

### ROBUST SECURITY

WPA/WPA2 (Wi-Fi Protected Access) and WEP (Wired Equivalent Privacy)	Supports advanced 128-bit WPA/WPA2 encryption, and 40-/64-and 128-bit WEP encryption for legacy wireless clients
Multi-level wireless security	Provides additional wireless security with SSID Broadcast Disable and MAC filtering
Firewall	Full SPI firewall, access control rules, DoS protection and other features helps protect your network from the security risks of always-on broadband connections
Internet protocol security (IPSec)	Enables secure site-to-site communication with up to five concurrent IPSec tunnels
Proxy Address Resolution Protocol (ARP)	Proxy ARP allows secure setup of public servers behind router firewall

### NETWORKING AND QOS

IP (RIP 1 and 2) and static routing	Allows the router to be used in multi-network environments
WiFi Multimedia (WMM®), QoS and VLAN support	Improves the user experience for audio, video and voice applications
Internet Group Management Protocol (IGMP) snooping and query	Allows more efficient use of resources when supporting multicast-based applications like online streaming video and gaming
Wi-Fi Distribution System (WDS)	Easily expands network coverage using compatible WDS-enabled APs
Dynamic Domain Name Service (DNS)	Enables Internet connections with dynamic IP addresses to network applications such as Web or FTP servers that normally require static IP addresses (requires subscription with Dynamic DNS providers)

### BUILT-IN EASE OF USE

Set-up wizards, pre-set defaults, and intuitive browser interface	Makes set up and configuration easy
Easy one-button access to WPS and wireless connectivity enablement	Secure your wireless network with just one push of a button; reduce power consumption by turning off wireless connectivity when not needed

# WIRELESS PERFORMANCE COMPARISON

	IEEE SPECIFICATION		
<b>PERFORMANCE MEASURE</b> <sup>‡</sup>	802.11b	802.11g	802.11n <sup>¥</sup>
<b>MAXIMUM DATA RATE</b>	11 Mbps	54 Mbps	300 Mbps
<b>MAXIMUM OPERATING RANGE</b>	35 m (115 ft)	35 m (115 ft)	70 m (230 ft)

<sup>‡</sup> Performance measures are theoretical maximums based on the IEEE specification. Actual performance may vary, based on total number of simultaneous users, amount of traffic generated by each user, physical and environmental conditions and other electronic devices in the area.

<sup>¥</sup> Draft 2.0 standard. Performance is with 2 streams and when using MIMO.

## SPECIFICATIONS

### MINIMUM SYSTEM REQUIREMENTS

Operating system that supports an Ethernet connection with an IP stack  
Computer with an Ethernet 10BASE-T or 10/100 interface configured for network communication

Wi-Fi-certified IEEE 802.11n draft 2.0-compliant, 802.11g or 802.11b adapter cards for wireless access

An active cable or DSL broadband connection

Installation CD requires Windows 95 or later

### USERS SUPPORTED\*

Up to 253 total simultaneous users

32 wireless users; MAC filter 32 clients

### HARDWARE CONFIGURATION

LAN: 4 autosensing 10BASE-T/100BASE-TX ports

WAN: 1 autosensing 10BASE-T/100BASE-TX port

Wi-Fi on/off button

Wi-Fi protected setup (WPS) button

3 antennas: 2 fixed external and 1 internal

### WIRELESS NETWORKING

Wireless distribution system (WDS);  
repeater mode for up to 4 links

WDS over WEP and WPA/WPA2

20 Mhz and 40 Mhz channels support

WMM (IEEE 802.11e)

WiFi protected setup (WPS); PIN and PBC modes

SSID broadcast disable

MAC address filtering

300 Mbps<sup>†</sup> performance

### FREQUENCY BAND

2.4-2.4835 GHz

### WIRELESS MEDIUM

OFDM, CCK

### MEDIA ACCESS PROTOCOL

CSMA/CA

### PROTOCOL SET

Dynamic and static IP addressing

MAC address cloning

DHCP server

IP to MAC address binding

NAT/PAT (with TCP and UDP), PPPoE, PPTP, IP, PAP, CHAP,

MS CHAP, IPCP, SNTP, L2TP

### ROUTING AND NETWORKING

RIP 1 and 2

Static routing

IGMP snooping

Port-based VLANs

### QUALITY OF SERVICE

WMM

Differentiated services (DiffServ); mark/remark up to 16 mapping rules

### SECURITY

128-bit WPA/WPA2 with TKIP/AES wireless encryption

40-/64-bit and 128-bit WEP encryption

URL and keyword filtering (black and white lists, 20 entries)

Special application support (port triggering; 20 entries accepting commas and hyphens)

Virtual server support (port forwarding; 20 entries)

Time scheduling (10 rules)

PC privileges (IP address-based ACL; 10 groups)

Proxy ARP support (RFC 1027)

Virtual DMZ support (up to 8 servers)

SSID Broadcast Disable

MAC address filtering

NAT/PAT/NAT off

Traffic metering

Full stateful packet inspection (SPI) firewall with

DoS/DDoS protection

NAT-T draft 2.0

SIP ALG

### VPN

IPSec, PPTP and L2TP/IPSec passthrough

Initiation/termination of up to five concurrent IPSec tunnels

Encryption: DES, 3DES, AES-128, AES-256

Key management: IKE (main and aggressive modes)

IKE keep-alive

FQDN support

PFS

### CONFIGURATION AND MANAGEMENT

Browser-based administration

Preset defaults

Remote management via HTTP

Save and restore configuration files

E-mail alerts

Syslog server support

SNMP v1/2c (MIBII)

### LED INDICATORS

Power (3Com logo, white)

Alert (amber)

Broadband connection (blue)

Wireless LAN (blue)

LAN ports 1-4 (blue)

WPS (blue)

\* Total number of simultaneous users depends on speed of broadband connection and amount of traffic generated by each user.

<sup>†</sup> Wireless performance depends on number of users, physical and environmental conditions and other electronic devices in the area.

## SPECIFICATIONS (CONTINUED)

### DIMENSIONS

Height (with rubber feet):  
4.0 cm (1.6 in), antenna folded;  
10.0 cm (3.9 in), antenna unfolded  
Width: 17.8 cm (7.0 in)  
Depth (with antenna): 16.0 cm (6.3 in)  
Weight: 300g (0.66 lb)

### POWER

Operating output: 12 VDC, 1A  
Maximum power consumption: 12W  
Supplied via included energy efficient power supply

### REGULATORY/AGENCY APPROVALS

Safety: UL 60950-1, CSA 22.2 No. 60950-1-03, EN 60950-1: 2001,  
IEC 60950-1: 2001.

Emission: CFR Title 47, FCC Part 15 Subpart B & C, ICES-003,  
Industry Canada RSS-210, Industry Canada RSS-Gen, EN 300 328, EN  
301 489-1/17, EN 55022 Class B, EN 55024

Environmental: EN 60068 (IEC 68)

### PACKAGE CONTENTS

3Com Wireless 11n Cable/DSL Firewall Router  
Power supply  
Install Guide  
CD ROM containing Discovery program and User Guide  
One straight-through category 5 UTP patch cable  
Four rubber feet

### WARRANTY AND OTHER SERVICES

Two Year Limited Hardware Warranty  
Limited Software Warranty for 90 days  
30 days of telephone technical support  
Refer to [www.3com.com/warranty](http://www.3com.com/warranty) for details.



## ORDERING INFORMATION

### PRODUCT DESCRIPTION

3Com Wireless 11n Cable/DSL Firewall Router

### MODEL

WL-602

### 3COM SKU

3CRWER300-73

Visit [www.3com.com](http://www.3com.com) for more information about 3Com solutions.

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