

## Cisco WRVS4400N Wireless-N Gigabit Security Router: Cisco Small Business Routers

### Highlights

- Secure, high-speed wireless network access for small business
- Gigabit Ethernet connections enable rapid transfer of large files
- Advanced security, including intrusion prevention, helps keep assets safe
- Full IPsec VPN capabilities for up to five remote connections

### Product Overview

The Linksys® by Cisco® WRVS4400N Wireless-N Gigabit Security Router combines wired and wireless network access with switching capabilities in a single, affordable device to help enable employees of small businesses like yours safely connect to the resources they need to be productive (Figure 1). Strong security features include a proven firewall with intrusion prevention, virtual private network (VPN) capabilities, and an optional service that scans your email and helps fight spam, viruses, and other threats. An integrated 4-port Gigabit Ethernet switch allows up to four devices to share high speed-connectivity in the office.

**Figure 1.** Linksys by Cisco WRVS4400N Wireless-N Gigabit Security Router



### Features and Benefits

The Linksys by Cisco WRVS4400N Wireless-N Gigabit Security Router offers:

- **High-speed connectivity:** Gigabit Ethernet connections on both WAN and LAN ports help you take full advantage of your broadband connections, enabling your employees to send and receive large files quickly and easily.
- **Integrated 802.11n wireless access point:** A built-in access point enables your employees to connect to the network wirelessly. Support for draft 2.0 of the 802.11n industry standard, along with backward compatibility with 802.11b and g standards,

increases wireless speed, throughput, and range, for more efficient wireless coverage of your small office.

- **Proven Stateful Packet Inspection (SPI) firewall with Intrusion Prevention System (IPS):** Unlike standard firewalls, which block incoming streams based only on the source or type of data, the intrusion prevention system scans deep, enabling it to detect and block most worms, Trojan horses, and denial-of-service attacks to help keep your business assets safe.
- **VPN capabilities:** IP Security (IPsec) VPN capabilities built into the WRVS4400N enable your remote employees, whether working from home or on the road, to connect to your office network using nearly any VPN client to access files and transfer data as securely as if they were in the office.
- **Optional Trend Micro ProtectLink Gateway Security Service:** This optional hosted service adds another layer of protection to your network by scanning email and websites to help fight spam, virus, web threats, and data leakage, without the drain on your office PCs caused by traditional security solutions.
- **Flexible segmentation of users:** Flexible, built-in support for up to 4 multiple service set identifiers (SSIDs) and up to four 802.1Q virtual LAN (VLAN) connections enables the creation separate virtual networks to allow secure guest access and improve traffic flow (Figure 2). The WRVS4400N can interoperate with other VLAN-capable switches, further enhancing flexibility.

**Figure 2.** Linksys by Cisco WRVS4400N Wireless-N Gigabit Security Router Port Connections



## Product Specifications

Table 1 lists basic product specifications for the WRVS4400N (v2) Wireless-N Gigabit Security Router.

**Table 1.** Product Specifications

Feature	Description
<b>Routing</b>	<ul style="list-style-type: none"> <li>• Static routing</li> <li>• Routing Information Protocol (RIPv1 and RIPv2)</li> <li>• Inter-VLAN routing</li> </ul>
<b>Layer 2</b>	<ul style="list-style-type: none"> <li>• Port-based and 802.1Q tag-based VLANs</li> <li>• 4 active VLANs (4094 range)</li> <li>• Service set identifier (SSID) broadcast enable/disable</li> <li>• Supports up to 4 multiple service set identifiers (SSIDs)</li> <li>• Supports SSID-to-VLAN mapping with wireless client isolation</li> </ul>

<b>Network</b>	<ul style="list-style-type: none"> <li>• Dynamic Host Configuration Protocol (DHCP) Server, DHCP Client, DHCP Relay Agent</li> <li>• Domain Name System (DNS) Relay, Dynamic DNS (DynDNS, TZO)</li> <li>• Network Address Translation (NAT): Port Address Translation (PAT), Network Address Port Translation (NAPT), Session Initial Protocol (SIP) Application Layer Gateway (ALG) support, NAT traversal</li> <li>• Network edge software configurable on any IP address</li> <li>• Wireless domain services (WDS) allows wireless signals to be repeated by up to 2 compatible repeaters</li> </ul>
<b>IPv6</b>	<ul style="list-style-type: none"> <li>• Dual-stack IPv4 and IPv6</li> <li>• 6 to 4</li> <li>• Stateless address auto-configuration</li> <li>• DHCP v6</li> <li>• Intra Module Command Protocol (IMCP) v6</li> </ul>
<b>Security</b>	<p>Access Control</p> <ul style="list-style-type: none"> <li>• IP-based access control list (ACL)</li> <li>• MAC-based wireless access control</li> </ul> <p>Firewall</p> <ul style="list-style-type: none"> <li>• SPI firewall</li> </ul> <p>Content Filtering</p> <ul style="list-style-type: none"> <li>• Static URL blocking or keyword blocking (included)</li> <li>• Dynamic filtering through Trend Micro ProtectLink Gateway Security Service (optional)</li> </ul> <p>Intrusion Prevention System (IPS)</p> <ul style="list-style-type: none"> <li>• IP sweep detection</li> <li>• Application anomaly detection (HTTP, FTP, Telnet, Remote Copy Protocol [RCP])</li> <li>• Peer-to-peer control</li> <li>• Instant messenger control</li> <li>• Layer 3/Layer4 protocol (IP, TCP, User Datagram Protocol [UDP], Internet Control Message Protocol [ICMP]) normalization</li> <li>• Layer 7 signature matching</li> </ul> <p>Secure Management</p> <ul style="list-style-type: none"> <li>• HTTPS</li> <li>• Username/Password</li> </ul> <p>802.1X</p> <ul style="list-style-type: none"> <li>• Port-based RADIUS authentication (Extensible Authentication Protocol multicast distributed switching [EAP-MDS], Protected Extensible Authentication Protocol [PEAP])</li> </ul>
<b>VPN</b>	<ul style="list-style-type: none"> <li>• 5 VPN tunnels for remote client access</li> <li>• 5 IPsec gateway-to-gateway tunnels for branch office connectivity</li> <li>• Triple Data Encryption Standard (3DES) encryption</li> <li>• Message Digest Algorithm 5 (MD5)/Secure Hash Algorithm 1 (SHA1) authentication</li> <li>• IPsec NAT=T</li> <li>• VPN pass-through of Point-to-Point Tunneling Protocol (PPTP), Layer 2 Tunneling Protocol (L2TP), IPsec</li> </ul>
<b>Quality of Service</b>	<ul style="list-style-type: none"> <li>• Service-based bandwidth management supports rate control and priority</li> <li>• Port-based prioritization on LAN port; application-based on WAN port</li> <li>• 4 queues</li> </ul>
<b>Management</b>	<ul style="list-style-type: none"> <li>• Simple Network Management Protocol (SNMP) version 1, 2c</li> <li>• Event logging: local, syslog, email alerts</li> <li>• Firmware upgradable through web browser</li> <li>• Flash, RAM diagnostics</li> <li>• Built-in web user interface for browser-based configuration</li> </ul>
<b>Performance</b>	NAT throughput: 800 Mbps when IPS is disabled
<b>Warranty Information</b>	
<p>This Cisco Small Business product comes with 3-year limited hardware warranty with return to factory replacement and a 90-day limited software warranty. In addition, Cisco offers software application updates for bug fixes and telephone technical support at no charge for the first 12 months following the date of purchase. To download software updates, go to <a href="http://www.cisco.com/go/smallbiz">http://www.cisco.com/go/smallbiz</a>.</p>	

## Wireless LAN Specifications

Table 2 lists WLAN specifications for the WRVS4400N Wireless-N Gigabit Security Router.

**Table 2.** WLAN Specifications

Feature	Description
<b>WLAN hardware</b>	IEEE 802.11n draft 2.0 standard-based access point with 802.11b/g compatibility Radio and Modulation Type <ul style="list-style-type: none"> <li>• 802.11n/g: orthogonal frequency-division multiplexing (OFDM)</li> <li>• 802.11b: direct sequence spread spectrum (DSSS)</li> <li>• MIMO operation</li> <li>• 3 omnidirectional 2-dBi gain external antennas</li> </ul> Operating Channels <ul style="list-style-type: none"> <li>• 11 North America</li> <li>• 13 most of Europe (ETSI and Japan)</li> </ul> Transmit Power <ul style="list-style-type: none"> <li>• 802.11b: 18 dBm +/- 1.5 dBm</li> <li>• 802.11g: 17 dBm +/- 1.5 dBm</li> <li>• 802.11n: 16.5 dBm +/- 1.5 dBm</li> </ul> Receiver Sensitivity <ul style="list-style-type: none"> <li>• 802.11n: 270 Mbps @ -65 dBm</li> <li>• 802.11g: 54 Mbps @ -70 dBm</li> <li>• 802.11b: 11 Mbps @ -85 dBm</li> </ul>
<b>WLAN security features</b>	<ul style="list-style-type: none"> <li>• 802.11i</li> <li>• Wi-Fi Protected Access (WPA) and Advanced Encryption Standard (AES) (WPA2)</li> </ul>
<b>SSIDs</b>	4
<b>Wireless VLANs</b>	4

## System Specifications

Table 3 lists the system specifications of the WRVS4400N Wireless-N Gigabit Security Router.

**Table 3.** System Specifications

Feature	Description
<b>WAN</b>	Gigabit Ethernet (10/100/1000) WAN port
<b>LAN</b>	4-port, full-duplex 10/100/1000 Ethernet switch
<b>Physical dimensions and weight</b>	<ul style="list-style-type: none"> <li>• W x D x H = 7.8 in. x 5.16 in. x 7.8 in. (198 mm x 131 mm x 198 mm)</li> <li>• Weight: 1.21 lb (0.55 kg)</li> </ul>
<b>Power</b>	12V 1A
<b>Approvals and compliance</b>	<ul style="list-style-type: none"> <li>• Draft IEEE 802.11n</li> <li>• IEEE 802.11b/g</li> <li>• IEEE 802.3/802.3u</li> <li>• IEEE 802.1X (security authentication)</li> <li>• IEEE 802.1Q (VLAN)</li> <li>• IEEE 802.11i ready (security WPA2)</li> <li>• IEEE 802.11e ready (wireless QoS)</li> <li>• RFC 791 (IPv4)</li> <li>• RFC 2460 (IPv6)</li> <li>• RFC 1058 (RIPv1)</li> <li>• RFC 1723 (RIPv2)</li> </ul>
<b>Certification</b>	<ul style="list-style-type: none"> <li>• FCC Class B</li> <li>• CE</li> <li>• ICES-003</li> <li>• WPA2</li> <li>• Wi-Fi Draft n v2.0</li> </ul>

<b>Environmental operating range</b>	<ul style="list-style-type: none"> <li>• Operating temperature: 0° to 40°C (32° to 104° F)</li> <li>• Storage temperature: -20° to 70°C (-4° to 158°F)</li> <li>• Operating humidity: 10 to 85% relative humidity (noncondensing)</li> <li>• Storage humidity: 5 to 90% relative humidity (noncondensing)</li> </ul>
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## Configuration Requirements

Table 4 lists the minimum requirements that must be in place in order to install or use the product.

**Table 4.** System Requirements

Feature	Description
<b>Network adapter</b>	Network adapter with Ethernet network cable installed per PC
<b>Web-based configuration</b>	Java/cookies/SSL-enabled web browser

## Ordering Information

Table 5 lists ordering information for the Linksys by Cisco WRVS4400N Wireless-N Gigabit Security Router and optional Trend Micro ProtectLink Gateway Security Service.

**Table 5.** Ordering Information

Part Number	Product Name
<b>WRVS4400N</b>	Linksys by Cisco WRVS4400N Wireless-N Gigabit Security Router (USA)
<b>WRVS4400N-AU</b>	Linksys by Cisco WRVS4400N Wireless-N Gigabit Security Router (Australia/New Zealand)
<b>WRVS4400N-EU</b>	Linksys by Cisco RVS4000 Gigabit Security Router (Europe)
<b>WRVS4400N-UK</b>	Linksys by Cisco RVS4000 Gigabit Security Router (United Kingdom)
<b>WRVS4400N-AS</b>	Linksys by Cisco RVS4000 Gigabit Security Router (Asia Pacific)
<b>WRVS4400N-LA</b>	Linksys by Cisco RVS4000 Gigabit Security Router (Latin America)
<b>Security Service</b>	
<b>LBATMPG05</b>	1-year subscription to Trend Micro ProtectLink Gateway Security Service



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