



## Product Highlights

Cost effective multi-function network solution ideal for small businesses

High speed router with integrated VPN tunnel support for secure network access from a remote location

Policy based service management allows for easy configuration of firewall rules

Available failover and load balancing for maximum productivity, uptime and performance <sup>2</sup>



DSR-150/150N/250/250N/500/500N

## Unified Services Routers

### Features

#### Comprehensive VPN Support

- Protocols
  - IPSec
  - PPTP
  - L2TP
  - SSL
- VPN Tunnels
  - Up to 20 (DSR-150/150N)
  - Up to 50 (DSR-250/250N)
  - Up to 60 (DSR-500/500N)
- SSL VPN tunnels
  - Up to 1 (DSR-150/150N)
  - Up to 5 (DSR-250/250N)
  - Up to 10 (DSR-500/500N)
- DES, 3DES, AES Encryption
- Main/Aggressive Negotiation

#### Wireless Access and Security<sup>1</sup>

- IEEE 802.11b/g/n (2.4 GHz)
- IEEE 802.1x RADIUS Authentication with EAP-TLS, EAP-TLLS, EAP-PEAP
- WPS, WEP, WPA-PSK, WPA-EAP, WPA2-PSK, WPA2-EAP

D-Link Unified Services Routers are secure, high performance networking solutions that address the growing needs of small and medium businesses. The integrated high-speed IEEE 802.11n wireless technology in the DSR-150N, DSR-250N and DSR-500N routers offers comparable performance to traditional wired networks, but with fewer limitations. Each router provides optimal network security via features such as Virtual Private Network (VPN) tunnels, IP Security (IPSec), Point-to-Point Tunneling Protocol (PPTP), Layer 2 Tunneling Protocol (L2TP), and Secure Sockets Layer (SSL). These routers also allow you to empower your road warriors with clientless remote access anywhere and anytime using SSL VPN tunnels.

### Reliable Internet Connectivity

The DSR-500/500N include dual-WAN Gigabit Ethernet ports that provide policy-based service management to ensure maximum productivity for your business operations. The failover feature maintains data traffic without disconnecting when a landline connection is lost. The Outbound Load Balancing feature adjusts outgoing traffic across two WAN interfaces and optimizes system performance, resulting in high availability. The second WAN port can be configured as a DMZ port, allowing you to isolate servers from your LAN.

### Superior Wireless Performance

Designed to deliver superior wireless performance, the DSR-150N, DSR-250N and DSR-500N include 802.11b/g/n support allowing for operation on the 2.4 GHz wireless LAN radio band. Multiple In Multiple Out (MIMO) technology allows the DSR-150N, DSR-250N and DSR-500N to provide high data rates and a wide wireless coverage area with minimized "dead spots."

### Enhanced Network Services

- IPv6
- DHCP Server/ Relay
- Dynamic DNS
- IEEE 802.1q VLAN
- Multiple SSIDs
- SSID-to-VLAN Mapping

### Content Filtering

- Static URL Address Filtering
- Keyword Filtering

### Fault Tolerance<sup>2</sup>

- WAN Traffic Failover
- Outbound Load Balancing

### DSR-150/150N

- 8 Fast Ethernet LAN Ports
- 1 Fast Ethernet WAN Port
- USB 2.0 Port
- IEEE 802.11b/g/n wireless LAN - 2.4 GHz (DSR-150N)

### DSR-250/250N

- 8 Gigabit LAN Ports
- 1 Gigabit WAN Port
- USB 2.0 Port
- IEEE 802.11 b/g/n wireless LAN - 2.4 GHz (DSR-250N)

### DSR-500/500N

- 4 Gigabit Ethernet LAN Ports
- 2 Gigabit Ethernet WAN Ports
- USB 2.0 Port
- IEEE 802.11b/g/n wireless LAN - 2.4 GHz (DSR-500N)

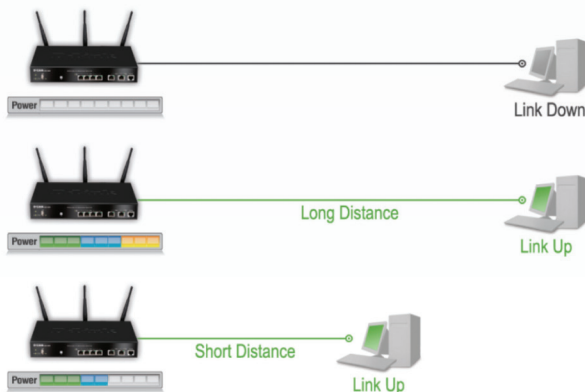
### Robust VPN Features

A full featured virtual private network (VPN) provides your mobile workers and branch offices with a secure link to your internal network. The DSR-150/150N, DSR-250/250N and DSR-500/500N are capable of simultaneously managing 1, 5 or 10 Secure Sockets Layer (SSL) VPN tunnels respectively, empowering your mobile users by providing remote access to a central corporate network. Site-to-site VPN tunnels use IP Security (IPSec) Protocol, Point-to-Point Tunneling Protocol (PPTP), or Layer 2 Tunneling Protocol (L2TP) to facilitate branch office connectivity through encrypted virtual links. The DSR-150/150N supports up to 10 simultaneous VPN tunnels, the DSR-250/250N supports up to 25 simultaneous VPN tunnels, and the DSR-500/500N supports up to 35 VPN tunnels.

### Efficient Green Technology

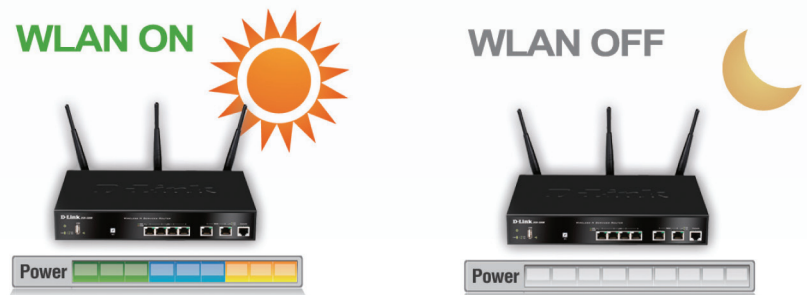
As a responsible member of the global community, D-Link is devoted to providing eco-friendly products. D-Link Green Wi-Fi and D-Link Green Ethernet features save power and help cut energy costs. The D-Link Green WLAN Scheduler shuts down your wireless network automatically according to a schedule you define, allowing you to turn off your wireless network during off-peak hours, saving energy and keeping your network secure. The D-Link Green Ethernet feature can detect the length of the cables connected to the router and can adjust power usage accordingly to save energy automatically without sacrificing performance. It can also detect if a link is down on a port and automatically puts that port into a sleep mode, reducing the amount of power used. In addition, compliance with RoHS (Restriction of Hazardous Substances) and WEEE (Waste Electrical and Electronic Equipment) directives make D-Link Green certified devices an environmentally responsible choice.

### Green Ethernet



D-Link Green Ethernet detects link status and cable length and adjusts power usage accordingly.

### Green WiFi<sup>1</sup>



The WLAN Scheduler shuts down the WLAN during off-peak hours to enhance network security and save power



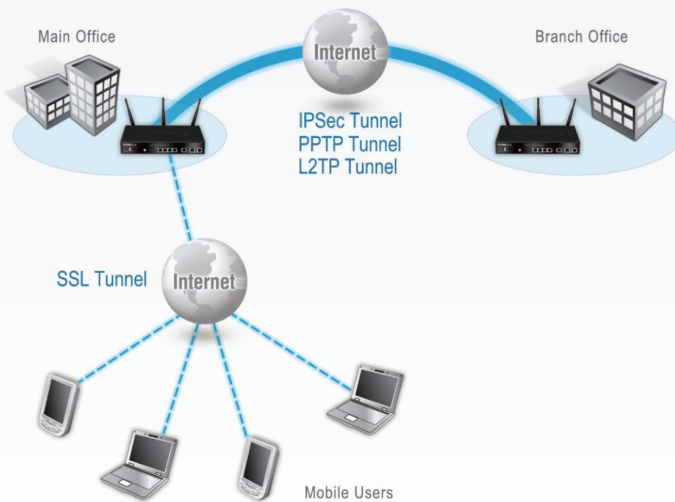
### USB 2.0 Extension



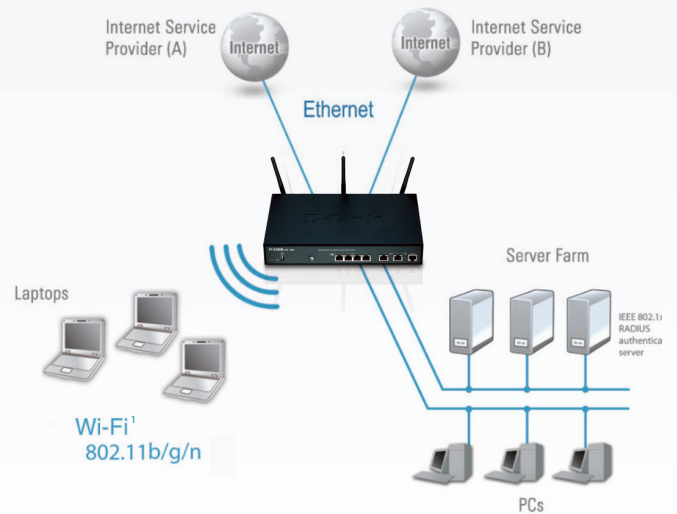
Supports one USB 2.0 device to extend functionality via D-Link's SharePort feature.









### Secure VPN Network Implementation



### Dual WAN for Redundant Internet<sup>2</sup>



### Technical Specifications

	DSR-150	DSR-250	DSR-500	DSR-150N	DSR-250N	DSR-500N
						
Interface						
Ethernet	<ul style="list-style-type: none"> <li>• 1 10/100 Mbps WAN Port</li> <li>• 8 10/100 Mbps LAN Ports</li> </ul>	<ul style="list-style-type: none"> <li>• 1 10/100/1000 Mbps WAN Port</li> <li>• 8 10/100/1000 Mbps LAN Ports</li> </ul>	<ul style="list-style-type: none"> <li>• 2 10/100/1000 Mbps WAN Ports</li> <li>• 4 10/100/1000 Mbps LAN Ports</li> </ul>	<ul style="list-style-type: none"> <li>• 1 10/100 Mbps WAN Port</li> <li>• 8 10/100 Mbps LAN Ports</li> </ul>	<ul style="list-style-type: none"> <li>• 1 10/100/1000 Mbps WAN Port</li> <li>• 8 10/100/1000 Mbps LAN Ports</li> </ul>	<ul style="list-style-type: none"> <li>• 2 10/100/1000 Mbps WAN Ports</li> <li>• 4 10/100/1000 Mbps LAN Ports</li> </ul>
Wireless	N/A			<ul style="list-style-type: none"> <li>• 802.11b/g/n (Single Band)</li> <li>• 2 internal 2dBi Omni-Directional Antennas</li> </ul>	<ul style="list-style-type: none"> <li>• 802.11b/g/n (Single Band)</li> <li>• 2 Detachable 2dBi Omni-Directional Antennas</li> </ul>	<ul style="list-style-type: none"> <li>• 802.11b/g/n (Single Band)</li> <li>• 3 Detachable 2dBi Omni-Directional Antennas</li> </ul>

	DSR-150	DSR-250	DSR-500	DSR-150N	DSR-250N	DSR-500N
USB 2.0	1			1		
Console	1 RJ-45			1 RJ-45		
<b>System Performance<sup>4</sup></b>						
Firewall Throughput <sup>5</sup>	45 Mbps		70 Mbps	45 Mbps		70 Mbps
VPN Throughput <sup>6</sup>	25 Mbps	35 Mbps	70 Mbps	25 Mbps	35 Mbps	70 Mbps
Concurrent Sessions	20000		30000	20000		30000
New Sessions (per second)	200		300	200		300
Firewall Policies	200		300	200		300
<b>Internet Connection Type</b>						
Internet Connection Type	DHCP, STATIC IP, PPPoE			DHCP, STATIC IP, PPPoE		
Firewall System	Yes			Yes		
Web Content Filtering	Yes			Yes		
<b>Firewall System</b>						
Static Route	Yes			Yes		
Dynamic DNS	-	RIPv1, RIPv2, OSPF		-	RIPv1, RIPv2, OSPF	
Inter-VLAN Route	Yes			Yes		
NAT, PAT	Yes			Yes		
Web Content Filtering	Static URL, Keywords			Static URL, Keywords		
Intrusion Prevention Systems (IPS)	-	Signature package included in Firmware		-	Signature package included in Firmware	
<b>Networking</b>						
DHCP Server/Client	Yes			Yes		
DHCP Relay	Yes			Yes		
IEEE 802.1q VLAN	Yes			Yes		
VLAN (Port-Based)	Yes			Yes		
IP Multicast	IGMP Proxy			IGMP Proxy		
IPv6	Yes			Yes		
Route Failover	-	Yes		-	Yes	
Outbound Load Balancing	-	Yes		-	Yes	
3G Redundancy	Yes			Yes		
<b>Wireless</b>						
Multiple Service Set Identifier (Multi SSID)	N/A			Yes		

	DSR-150	DSR-250	DSR-500	DSR-150N	DSR-250N	DSR-500N
Service Set Identifier (SSID) to VLAN Mapping	N/A			Yes		
Standards	N/A			B/G/N (dual stream)		
Wireless Security	N/A			Wired Equivalent Privacy (WEP) Wi-Fi Protect Setup (WPS) Wi-Fi Protected Access – Personal (WPA-PSK) Wi-Fi Protected Access – Enterprise (WPA-EAP) Wi-Fi Protected Access version 2 – Personal (WPA-PSK) Wi-Fi Protected Access version 2 – Enterprise (WPA-EAP)		
<b>Virtual Private Network (VPN)</b>						
IPSec Tunnels	10	25	35	10	25	35
SSL VPN Tunnels	1	5	10	1	5	10
PPTP/L2TP Clients	10	25	25	10	25	25
VPN Tunnels (total)	21	55	70	21	55	70
Encryption Methods	DES, 3DES, AES, Twofish, Blowfish, CAST-128, NULL			DES, 3DES, AES, Twofish, Blowfish, CAST-128, NULL		
SSL Encryption Methods	RC4-128, 3DES, AES			RC4-128, 3DES, AES		
IPSec/PPTP/L2TP Server	Yes			Yes		
IPSec NAT Traversal	Yes			Yes		
Dead Peer Detection	Yes			Yes		
IP Encapsulating Security Payload (ESP)	Yes			Yes		
IP Authentication Header (AH)	Yes			Yes		
VPN Tunnel Keep Alive	Yes			Yes		
Hub and Spoke	Yes			Yes		
<b>Bandwidth Management</b>						
Max. Bandwidth Control	Yes			Yes		
Priority Bandwidth Control	Port-Based QoS, 3 Classes			Port-Based QoS, 3 Classes		
<b>Bandwidth Management</b>						
Web-based User Interface	HTTP, HTTPS			HTTP, HTTPS		
Command Line	Yes			Yes		
SNMP	v1, v2c, v3			v1, v2c, v3		
<b>Physical &amp; Environment</b>						
Power Supply	External Power Supply Unit Input: 100-240 VAC, 50/60Hz Output: DC 12V, 1.5A		Internal Power Supply Unit Input: 100-240 VAC, 50/60Hz	External Power Supply Unit Input: 100-240 VAC, 50/60Hz Output: DC 12V, 1.5A		Internal Power Supply Unit Input: 100-240 VAC, 50/60Hz

## DSR-150/150N/250/250N/500/500N Unified Services Routers

	DSR-150	DSR-250	DSR-500	DSR-150N	DSR-250N	DSR-500N
Max. Power Consumption	7.44W	11.8W	15.6W	10.5W	12.6W	16.8W
Dimensions (L x W x H)	8.19 x 4.68 x 1.38 in (208 x 118 x 35 mm)	5.51 x 8.0 x 1.38 in (140 x 203 x 35 mm)	7.09 x 11.02 x 1.73 in (180 x 280 x 44 mm)	8.19 x 4.68 x 1.38 in (208 x 118 x 35 mm)	5.51 x 8.0 x 1.38 in (140 x 203 x 35 mm)	7.09 x 11.02 x 1.73 in (180 x 280 x 44mm)
Operation Temperature	32 to 104 °F (0 to 40 °C)			32 to 104 °F (0 to 40 °C)		
Storage Temperature	-4 to 158 °F (-20 to 70 °C)			-4 to 158 °F (-20 to 70 °C)		
Operation Humidity	5% to 95% Non-condensing			5% to 95% Non-condensing		
EMI/EMC	FCC Class B, CE Class B, C-Tick, IC			FCC Class B, CE Class B, C-Tick, IC		
Safety	cUL, LVD (EN60950-1)			cUL, LVD (EN60950-1)		
MTBF	240,000 hours	250,000 hours	260,000 hours	240,000 hours	250,000 hours	260,000 hours

### Ordering Information

Part Number	Description
DSR-150	Services Router, 8 10/100M Ports, 1 WAN Port
DSR-250	Services Router, 8 Gigabit Ports, 1 WAN Port
DSR-500	Services Router, 4 Gigabit Ports, 2 WAN Ports
DSR-150N	Wireless Services Router, 8 10/100M Ports, 1 WAN Port
DSR-250N	Wireless Services Router, 8 Gigabit Ports, 1 WAN Port
DSR-500N	Wireless Services Router, 4 Gigabit Ports, 2 WAN Ports

<sup>1</sup> DSR-150N/250N/500N Only

<sup>2</sup> DSR-500/500N only

<sup>3</sup> Printer support list can be referred to at <http://www.openprinting.org/printers>.

<sup>4</sup> Actual performance may vary depending on network conditions and activated services.

<sup>5</sup> The maximum Firewall plaintext throughput is based on RFC2544 testing methodologies.

<sup>6</sup> VPN throughput is measured using UDP traffic with a 1420 byte packet size, adhering to RFC2544.

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