High-Performance VPN

- Protocols
  - IPSec
  - PPTP
  - L2TP
  - SSL
- VPN Tunnels
  - Up to 25 (DSR-250N)
  - Up to 35 (DSR-500/500N)
  - Up to 70 (DSR-1000/1000N)
- SSL VPN tunnels
  - Up to 5 (DSR-250N)
  - Up to 10 (DSR-500/500N)
  - Up to 20 (DSR-1000/1000N)
- DES, 3DES, AES Encryption
- Main/Aggressive Negotiation

Wireless Access and Security[1]

- IEEE 802.11 a[2]/b/g/n (2.4 GHz, 5 GHz[2])
- IEEE 802.1x RADIUS Authentication with EAP-TLS, EAP-TLLS, EAP-PEAP
- WPS, WEP, WPA-PSK, WPA-EAP, WPA2-PSK, WPA2-EAP

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[3]

- WAN Traffic Failover
- Outbound Load Balancing

[1] DSR-250N/500N, and DSR-1000N only
[2] DSR-1000N only
[3] DSR-500/500N/1000, and 1000N only

Unified Services Routers

D-Link Unified Services Routers provide secure, high performance networking solutions to address the growing needs of small and medium businesses. The integrated high-speed IEEE 802.11n wireless technology in the DSR-250N, DSR-500N, and the DSR-1000N 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.

Comprehensive Management Capabilities

The DSR-500/500N and DSR-1000/1000N include dual-WAN Gigabit Ethernet that provides 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-250N, DSR-500N, and DSR-1000N include 802.11a[2]/b/g/n, allowing for operation on either the 2.4 GHz or 5 GHz[2] wireless LAN radio bands. Multiple In Multiple Out (MIMO) technology allows the DSR-250N, DSR-500N and DSR-1000N to provide high data rates and a wide wireless coverage area with minimized "dead spots."

Robust VPN Features

A fully featured virtual private network (VPN) provides your mobile workers and branch offices with a secure link to your network. The DSR-250N, DSR-500/500N, and DSR-1000/1000N are capable of simultaneously managing 5, 10, or 20 Secure Sockets Layer (SSL) VPN tunnels respectively, empowering your mobile users by providing remote access to a central corporate database. 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-250N supports up to 25 simultaneous VPN tunnels, the DSR-500/500N supports up to 35 VPN tunnels, and the DSR-1000/1000N supports up to 70 VPN tunnels.

Efficient Green Technology

As a concerned 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 usage 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 that drastically reduces 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.

DSR-250N
- 8 Gigabit LAN Ports
- Gigabit WAN Port
- USB 2.0 Port

DSR-500
- 4 Gigabit Ethernet LAN Ports
- 2 Gigabit Ethernet WAN Ports
- USB 2.0 Port

DSR-1000
- 4 Gigabit Ethernet LAN Ports
- 2 Gigabit Ethernet WAN Ports
- 2 USB 2.0 Ports

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

DSR-1000N
- IEEE 802.11a/b/g/n wireless LAN (2.4 GHz/5 GHz)
- 4 Gigabit Ethernet LAN Ports
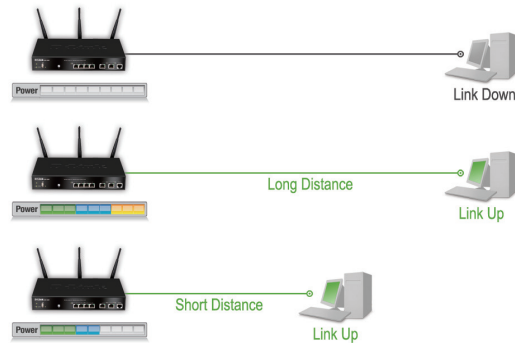- 2 Gigabit Ethernet WAN Ports
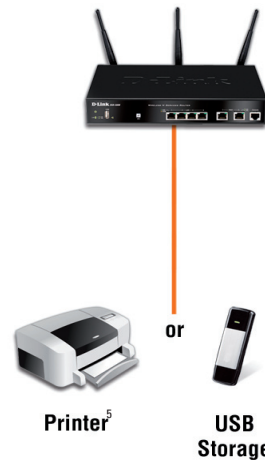- 2 USB 2.0 Ports

Green Wi-Fi[4]

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

Green Ethernet

D-Link Green Ethernet detects link status and cable length and adjusts power usage accordingly.
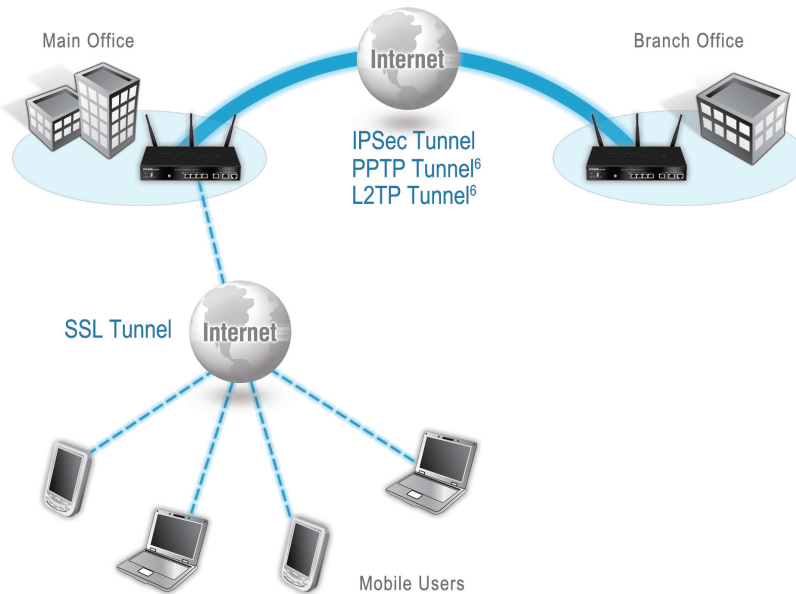
USB 2.0 Extension

Printer[5]   USB Storage

Supports one (DSR-250N/500/500N) or two (DSR-1000/1000N) USB 2.0 devices to extend functionality via D-Link's SharePort feature.

[4] DSR-250N/ 500N, and DSR-1000N only
[5] Printer support list can be referred to at http://www.openprinting.org/printers.

Secure VPN Network Implementation

Main Office

Internet

Branch Office

IPSec Tunnel
PPTP Tunnel[6]
L2TP Tunnel[6]

SSL Tunnel

Internet

Mobile Users

Dual WAN for Redundant Internet

Internet Service Provider (A)

Internet

Internet

Internet Service Provider (B)

Ethernet

Server Farm

IEEE 802.1x RADIUS authentication server

Laptops

Wi-Fi[7]
802.11a[8]/b/g/n

PCs
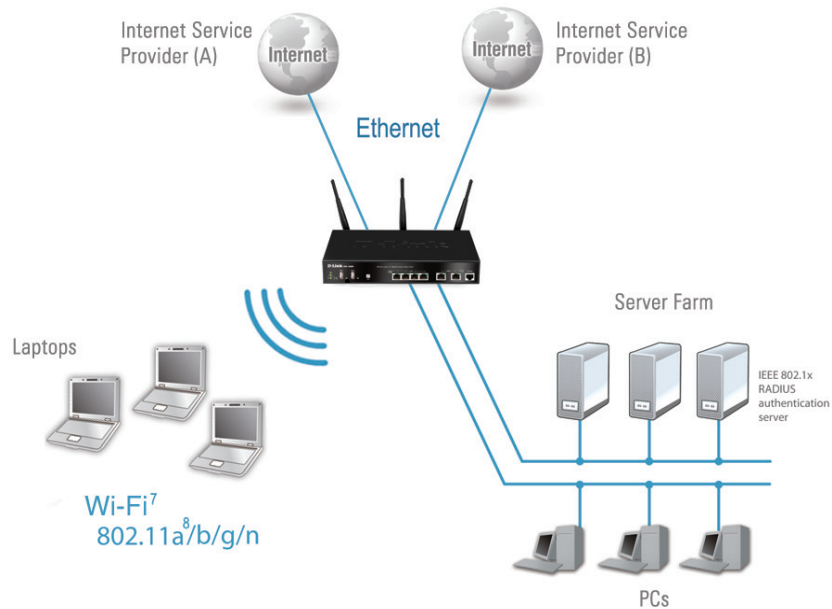
[6] Available with future firmware upgrade
[7] DSR-500N and DSR-1000N only
[8] DSR-1000N only

Technical Specifications		DSR-250N	DSR-500N	DSR-1000N
Interface	Ethernet	1 10/100/1000 Mbps WAN Port 8 10/100/1000 Mbps LAN Ports	2 10/100/1000 Mbps WAN Ports 4 10/100/1000 Mbps LAN Ports	2 10/100/1000 Mbps WAN Ports 4 10/100/1000 Mbps LAN Ports
	Wireless	802.11b/g/n (Single Band) 2 Detachable 2dBi Omni-Directional Antennas	802.11b/g/n (Single Band) 3 Detachable 2dBi Omni-Directional Antennas	802.11a/b/g/n (Dual Band) 3 Detachable 2dBi Omni-Directional Antennas
	USB 2.0 Ports	1	1	2
	Console	1 RJ-45	1 RJ-45	1 RJ-45
System Performance[10]	Firewall Throughput[9]	45 Mbps	70 Mbps	130 Mbps
	VPN Throughput[11]	35 Mbps	70 Mbps	100 Mbps
	Concurrent Sessions	20,000	30,000	60,000
	New Sessions (per second)	200	300	600
	Firewall Policies	200	300	600
Internet Connection Type	Static/ Dynamic IP	✓	✓	✓
	PPPoE/ L2TP/ PPTP	✓	✓	✓
	Multiple PPPoE	✓	✓	✓
Firewall System	Static Route	✓	✓	✓
	Dynamic Route	—	RIPv1, RIP v2, OSPF[12]	
	Dynamic DNS	✓	✓	✓
	Inter-VLAN Route	✓	✓	✓
	NAT, PAT	✓	✓	✓
	Web Content Filtering	Static URL, Keywords		
	Intrusion Prevention System (IPS)	Signature package included in Firmware		
Networking	DHCP Server/ Client	✓	✓	✓
	DHCP Relay	✓	✓	✓
	IEEE802.1q VLAN	✓	✓	✓
	VLAN (Port-Based)	✓	✓	✓
	IP Multicast	IGMP Proxy		
	IPv6	✓	✓	✓
	Route Failover	✓	✓	✓
	Outbound Load Balancing	—	✓	✓

Technical Specifications		DSR-500	DSR-1000
Interface	**Ethernet**	2 10/100/1000 Mbps WAN Ports 4 10/100/1000 Mbps LAN Ports	
	Wireless	—	—
	USB 2.0 Ports	1 USB 2.0	2 USB 2.0
	Console	1 RJ-45	
System Performance[10]	**Firewall Throughput[9]**	70 Mbps	130 Mbps
	VPN Throughput[11]	70 Mbps	100 Mbps
	Concurrent Sessions	30,000	60,000
	New Sessions (per second)	300	600
	Firewall Policies	300	600
Internet Connection Type	**Static/ Dynamic IP**	✓	✓
	PPPoE/ L2TP/ PPTP	✓	✓
	Multiple PPPoE	✓	✓
Firewall System	**Static Route**	✓	✓
	Dynamic Route	RIPv1, RIP v2, OSPF[12]	
	Dynamic DNS	✓	✓
	Inter-VLAN Route	✓	✓
	NAT, PAT	✓	✓
	Web Content Filtering	Static URL, Keywords	
	Intrusion Prevention System (IPS)	Signature package included in Firmware	
Networking	**DHCP Server/ Client**	✓	✓
	DHCP Relay	✓	✓
	IEEE802.1q VLAN	✓	✓
	VLAN (Port-Based)	✓	✓
	IP Multicast	IGMP Proxy	
	IPv6	✓	✓
	Route Failover	✓	✓
	Outbound Load Balancing	✓	✓

Technical Specifications		DSR-250N	DSR-500N	DSR-1000N
Wireless	Multiple Service Set Identifier (SSID)	✓	✓	✓
	Service Set Identifier (SSID) to VLAN Mapping	✓	✓	✓
	Wireless Security	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)	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)	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)
Wi-Fi	Certification	bg **Wi Fi** n CERTIFIED® dual-stream n	bg **Wi Fi** n CERTIFIED® dual-stream n	abg **Wi Fi** n CERTIFIED® dual-stream n
Virtual Private Network (VPN)	VPN Tunnels	25	35	70
	Encryption Methods	DES, 3DES, AES, Twofish, Blowfish, CAST-128, NULL		
	IPSec/PPTP/L2TP Server	✓	✓	✓
	PPTP/L2TP Clients	25/25	25/25	25/25
	IPSec NAT Traversal	✓	✓	✓
	Dead Peer Detection	✓	✓	✓
	IP Encapsulating Security Payload (ESP)	✓	✓	✓
	IP Authentication Header (AH)	✓	✓	✓
	VPN Tunnel Keep Alive	✓	✓	✓
	Hub and Spoke	✓	✓	✓
SSL Virtual Private Network (SSL VPN)	SSL VPN Tunnel	5	10	20
	SSL Encryption Methods	DES, 3DES, AES		
	SSL Message Integrity	MD5, SHA1		
Bandwidth Management	Max. Bandwidth Control	✓	✓	✓
	Priority Bandwidth Control	Port-Based QoS 3 Classes		

Technical Specifications		DSR-500	DSR-1000
Wireless	Multiple Service Set Identifier (SSID)	—	—
	Service Set Identifier (SSID) to VLAN Mapping	—	—
	Wireless Security	—	—
Wi-Fi	Certification	—	—
Virtual Private Network (VPN)	VPN Tunnels	35	70
	Encryption Methods	DES, 3DES, AES, Twofish, Blowfish, CAST-128, NULL	
	IPSec/PPTP/L2TP Server	✓	✓
	PPTP/L2TP Clients	25/25	25/25
	IPSec NAT Traversal	✓	✓
	Dead Peer Detection	✓	✓
	IP Encapsulating Security Payload (ESP)	✓	✓
	IP Authentication Header (AH)	✓	✓
	VPN Tunnel Keep Alive	✓	✓
	Hub and Spoke	✓	✓
SSL Virtual Private Network (SSL VPN)	SSL VPN Tunnel	10	20
	SSL Encryption Methods	DES, 3DES, AES	
	SSL Message Integrity	MD5, SHA1	
Bandwidth Management	Max. Bandwidth Control	✓	✓
	Priority Bandwidth Control	Port-Based QoS 3 Classes	

Technical Specifications		DSR-250N	DSR-500N	DSR-1000N
System Management	Web-based User Interface	HTTP, HTTPS		
	Command Line	✓	✓	✓
	SNMP	v1, v2c, v3		
Physical & Environment	Power Supply	Internal Power Supply Unit DC 12 V / 2.5 A		
	Max. Power Consumption	12.6 W	16.8 W	19.3 W
	Dimensions (L x W x H)	140 x 203 x 35 mm (5.51 x 8.0 x 1.38 inches)	180 x 280 x 44 mm (7.09 x 11.02 x 1.73 inches)	180 x 280 x 44 mm (7.09 x 11.02 x 1.73 inches)
	Operation Temperature	0 to 40 °C		
	Storage Temperature	-20 to 70 °C		
	Operation Humidity	5% to 95% Non-condensing		
	EMI/EMC	FCC Class B, CE Class B, C-Tick	FCC Class B, CE Class B, C-Tick, IC	FCC Class B, CE Class B, VCCI, C-Tick, IC
	Safety	cUL, LVD (EN60950-1)	cUL, LVD (EN60950-1)	cUL, LVD (EN60950-1)
	MTBF	250,000 hours	260,000 hours	

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Technical Specifications		DSR-500	DSR-1000

System Management	**Web-based User Interface**	HTTP, HTTPS	
	Command Line	✓	✓
	SNMP	v1, v2c, v3	
Physical & Environment	**Power Supply**	Internal Power Supply Unit DC 12 V / 2.5 A	Internal Power Supply Unit DC 12 V / 2.5 A
	Max. Power Consumption	15.6 W	17.2 W
	Dimensions (L x W x H)	180 x 280 x 44 mm	180 x 280 x 44 mm
	Operation Temperature	0 to 40 °C	
	Storage Temperature	-20 to 70 °C	
	Operation Humidity	5% to 95% Non-condensing	
	EMI/EMC	FCC Class B, CE Class B, C-Tick	FCC Class B, CE Class B, C-Tick
	Safety	cUL, LVD(EN60950-1)	cUL, LVD(EN60950-1)
	MTBF	260,000 hours	

[9] VPN throughput is measured using UDP traffic with a 1420 byte packet size, adhering to RFC2544.
[10] The maximum Firewall plaintext throughput is based on RFC2544 testing methodologies.
[11] Actual performance may vary depending on network conditions and activated services.
[12] Available with future firmware upgrade.