



## DSR-250N/500N/1000N Unified Services Routers



### Product Highlights:

#### High VPN Performance

- Protocol: IPSec, PPTP, L2TP, SSL
- Up to 25 (DSR-250N), 35 (DSR-500N) or 70 (DSR-1000N) VPN tunnels
- Up to 5 (DSR-250N), 10 (DSR-500N) or 20 (DSR-1000N) SSL VPN tunnels for remote access
- DES, 3DES, AES encryption
- Main/Aggressive Negotiation

#### Wireless Access and Security

- IEEE 802.11 a/b/g/n (2.4GHz, 5GHz<sup>1</sup>)
- IEEE 802.1x RADIUS authentication with EAP-TLS, EAP-TLS, EAP-PEAP
- WPS, WEP, WPA-PSK, WPA-EAP, WPA2-PSK, WPA2-EAP

#### Interfaces:

- Gigabit LAN ports
- Gigabit WAN port
- Console port
- USB 2.0 port

#### Enhanced Network Services

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

#### Firewall system:

- IPS
- NAT, PAT

#### Content Filtering

- Static URL Address Filtering
- Keyword Filtering

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

- WAN Traffic Failover
- 3G and Physical Traffic Failover<sup>1</sup>
- Outbound Load Balancing<sup>3</sup>

<sup>1</sup> DSR-1000N only

<sup>2</sup> DSR-500N/1000N only

<sup>3</sup> Available with future firmware upgrade

<sup>4</sup> With D-Link's DWM-156 USB 3G dongle.

D-Link Unified Services Routers offer secure, high performance networking solutions to address the growing needs of businesses. The integrated high-speed IEEE 802.11n and 3G<sup>1</sup> wireless technologies offer comparable performance to traditional wired networks, but with fewer limitations. Each router provides optimal network security with 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 empower your mobile workers with client less remote access anywhere and anytime using SSL VPN tunnels.

#### Comprehensive Management Capabilities

The DSR-500N and DSR-1000N include dual-WAN Gigabit Ethernet that provides policy-based service management ensuring 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<sup>2</sup> adjusts outgoing traffic across two WAN interfaces and optimises the 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 802.11 a/b/g/n, allowing for operation on either the 2.4 GHz or 5 GHz<sup>1</sup> wireless LAN radio bands. Multiple In Multiple Out (MIMO) technology allows the DSR-250N, DSR-500N and DSR-1000N to provide high data rates with minimal "dead spots" throughout the wireless coverage area.

#### Flexible Deployment Options

The DSR-1000N supports Third Generation (3G) Networks via an extendable USB 3G dongle<sup>4</sup>. This 3G network capability offers an additional secure data connection for networks that provide critical services.

The DSR-500N<sup>3</sup> and DSR-1000N can be configured to automatically switch to a 3G network whenever a physical link is lost.

#### 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-500N and DSR-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-500N supports up to 35 simultaneous VPN tunnels, and the DSR-1000N 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 WiFi and D-Link Green Ethernet 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 program adjusts power usage based on the detected cable length and link status. 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/500N/1000N

### Unified Services Routers

#### DSR-250N

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

#### DSR-500N

- IEEE 802.11 b/g/n (2.4GHz)
- 4 Gigabit Ethernet LAN
- 2 Gigabit Ethernet WAN
- 1 USB 2.0

#### DSR-1000N

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

#### Accessories

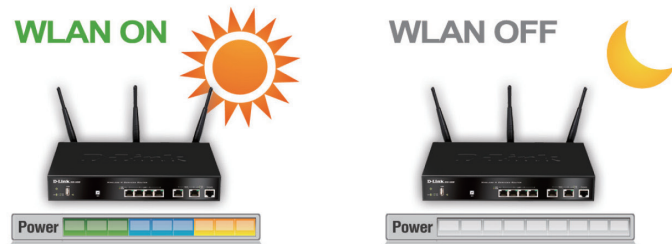
##### DWM-156 (3.75G)

- GSM/GPRS/EDGE 850/900/1800/1900 MHz
- UMTS/HSDPA<sup>5</sup> 850/1900/2100 MHz
- DATA RATES<sup>6</sup>
  - DL: 7.2 Mbps
  - UL: 5.76 Mbps

<sup>5</sup> Supported frequency band is dependant upon regional hardware version.

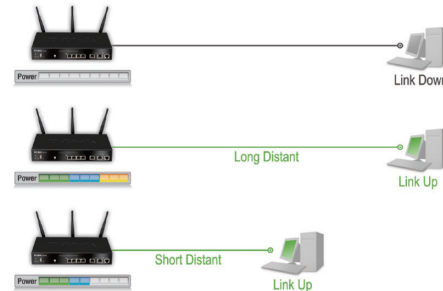
<sup>6</sup> Data rates are theoretical. Data transfer rate depends on network capacity and signal strength.

### Green Wi-Fi



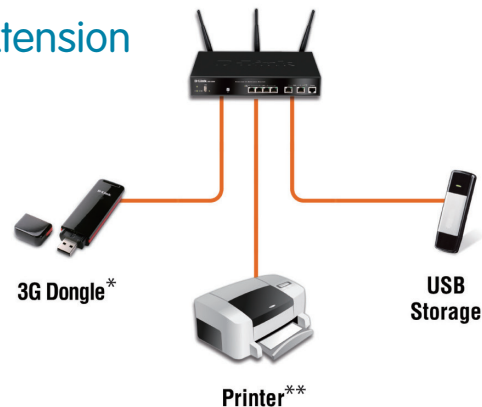
The WLAN Scheduler turns down WLAN during off-peak hours to enhance network security and save power.

### Green Ethernet



The D-Link Green Ethernet power-saving program can adjust power by detecting link status and cable length.

### USB 2.0 Extension



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

\* DSR-1000N only

\*\* Available with future firmware upgrade



## DSR-250N/500N/1000N Unified Services Routers

### D-Link Assist Rapid Response Support

If the worst should happen to your network you need the very best support and fast. Downtime costs your business money. D-Link Assist maximises your uptime by solving technical problems quickly and effectively. Our highly-trained technicians are on standby around the clock, ensuring that award-winning support is only a phone call away.

With a choice of three affordable service offerings covering all D-Link business products, you can select the package that suits you best:

#### D-Link Assist Gold - for comprehensive 24-hour support

D-Link Assist Gold is perfect for mission-critical environments where maximum uptime is a high priority. It guarantees four hour around-the-clock response. Cover applies 24/7 for every day of the year including holidays.

#### D-Link Assist Silver - for prompt same-day assistance

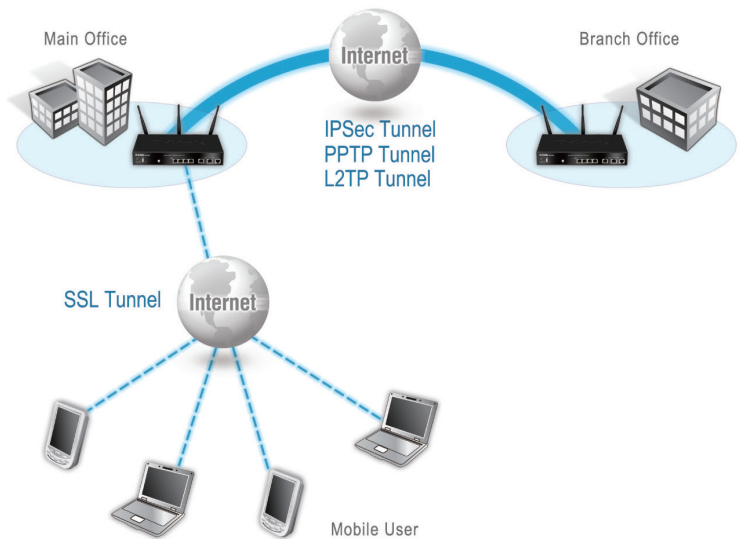
D-Link Assist Silver is designed for 'high availability' businesses that require rapid response within regular working hours. It provides a four hour response service Monday to Friday from 8am to 5pm, excluding holidays.

#### D-Link Assist Bronze - for guaranteed response on the next business day

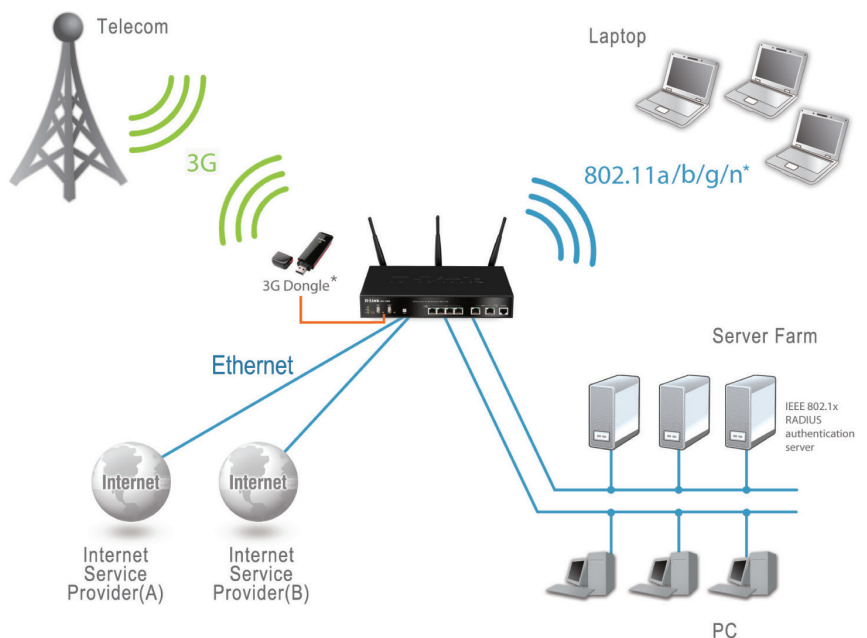
D-Link Assist Bronze is a highly cost-effective support solution for less critical environments. Response is guaranteed within eight business hours Monday to Friday from 8am to 5pm, excluding holidays.

D-Link Assist can be purchased together with any D-Link business product. So whether you're buying switching, wireless, storage, security or IP Surveillance equipment from D-Link, your peace of mind is guaranteed. D-Link Assist also offers installation and configuration services to get your new hardware working quickly and correctly.

### Secure VPN Network Implementation






### Dual-WAN/3G for Redundant Internet



\* 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 Detectable 2dBi Omni-Directional Antennas	802.11 b/g/n (Single Band) 3 Detachable 2dBi Omni-Directional Antennas	802.11 a/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 <sup>9</sup>	Firewall Throughput <sup>8</sup>	45 Mbps	70 Mbps	130 Mbps
	VPN Throughput <sup>10</sup>	35 Mbps	70 Mbps	100 Mbps
	Concurrent Sessions	20,000	30,000	60,000
	New Sessions (per second)	200	300	600
	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 <sup>7</sup>
	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	✓	✓	✓
	3G Redundancy			✓
Wireless	Outbound Load Balancing <sup>7</sup>		✓ <sup>7</sup>	✓ <sup>7</sup>
	Multiple Service Set Identifier (SSID)	✓	✓	✓
	Service Set Identified (SSID) to VLAN Mapping	✓	✓	✓
Wireless Security	Wired Equivalent Privacy (WEP), WiFi 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)			
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	✓	✓	✓
SSL Virtual Private Network (SSL VPN)	Hub and Spoke	✓	✓	✓
	SSL VPN Tunnel	5	10	20
	SSL Encryption Methods		DES, 3DES, AES	
Bandwidth Management	SSL Message Integrity		MD5, SHA1	
	Max. Bandwidth Control	✓	✓	✓
	Priority Bandwidth Control		Port-Based QoS, 3 Classes	
System Management	Web-based User Interface		HTTP, HTTPS	
	Command Line	✓	✓	✓
	SNMP		v1, v2c, v3	
Physical & Environment	Power Supply		Internal Power Supply Unit, DC12V/2.5A	
	Dimensions (L x W x H)	140 x 203 x 35 mm	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, VCCI, C-Tick, IC	
	Safety	cUL, LVD (EN60950-1)	cUL, LVD (EN60950-1)	
MTBF	250,000 hours	260,000 hours		



<sup>7</sup> Available with future firmware upgrade.  
<sup>8</sup> The maximum Firewall plaintext throughput is based on RFC2544 testing methodologies.  
<sup>9</sup> Actual performance may vary depending on network conditions and activated services.  
<sup>10</sup> VPN throughput is measured using UDP traffic with a 1420 byte packet size, adhering to RFC2544.

For further information: [www.dlink.eu](http://www.dlink.eu)



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