

## **Product Highlights**

#### **Comprehensive Management Solution**

Advanced features such as WAN failover, load balancing and integrated firewall make this a reliable, secure and flexible way to manage your network

#### **Complete VPN Features**

With fully featured VPN as well as IPSec hub-and-spoke technology, secure communications between mobile employees and offices can be configured easily

#### **Web Authentication Capabilities**

Captive Portal allows employees and guest users to be easily authenticated and authorised by accessing customized landing pages



## **DSR Series**

## **Unified Services VPN Routers**

#### **Features**

## High-Performance VPN

- Protocols
  - IPSec, PPTP/L2TP, GRE, SSL, OpenVPN
- VPN Tunnels
  - DES, 3DES, AES, Blowfish, Twofish, CAST128
  - Hub and Spoke

#### **Enhanced Network Service**

- IPv6
- IEEE 802.11q VLAN
- Multiple SSIDs
- Port Monitoring/Bandwidth Control
- IGMP Proxy, IGMP Snooping
- Web Authentication Capabilities
- Application Control

#### Wireless Access and Security (DSR-1000AC only)

- IEEE 802.11 a/b/g/n/ac
- IEEE 802.1x RADIUS Authentication with EAP-TLS, EAP-TLLS, EAP-PEAP
- WPS, WEP, WPA-PSK, WPA-EAP, WPA2-PSK, WPA2-EAP

#### **Fault Tolerance**

• WAN Traffic Failover & Outbound Load Balancing

The DSR Series Unified Services VPN Routers provide secure, high-performance networking solutions to address the growing needs of small and medium businesses. With integrated high-speed wireless technology, the DSR-1000AC offer comparable performance to wired networks but with fewer limitations. 802.11ac offers wider radio frequency band support on the 5 GHz band, allowing devices to connect at wireless speeds of up to 1300 Mbps¹.

## **Comprehensive Management Capabilities**

The DSR series include dual WAN Gigabit Ethernet ports to provide high availability for your WAN or Internet connections. Traffic can be load-balanced across the links with Outbound Load Balancing, increasing the performance and availability of business applications. The secondary WAN port can also be used to create a DMZ, isolating servers from your LAN. The DSR series supports mobile broadband networks via an extendable USB modem<sup>2</sup>, such as 3G/4G dongles. Traffic load balancing can be performed on mobile data connections, providing an additional layer of redundancy for critical or backup applications.

#### Web Authentication Capabilities

Captive Portal allows employees and guest users to authenticate and authorise easily by accessing a customised landing page. A local database, RADIUS, LDAP, Microsoft Windows Active Directory, NT Domain and POP3 server can authenticate users. A maximum of four servers can be configured at any one time.

### **Application Control**

Application control enhances security by only allowing certain types of network traffic for predefined applications. The DSR Series uses application control to help accurately shape network traffic by either giving priority or applying control policies to effectively manage network utilisation. Using packet inspection and a database of application signatures based on the application's network usage patterns, the DSR Series gives complete control over the content that is delivered to end users.



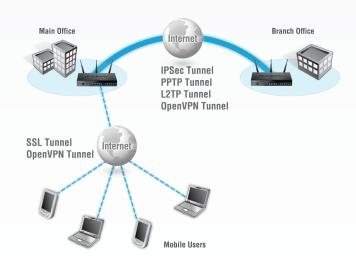
## **Complete and Robust VPN Features**

A fully featured virtual private network (VPN) provides your mobile workers and branch offices with a secure link to your network. The DSR series routers are capable of Secure Sockets Layer (SSL) VPN tunnels, as well as Generic Routing Encapsulation (GRE) tunnels, 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. OpenVPN allows mobile users to connect to the intranet via encrypted links with their PC, laptops or mobile devices.

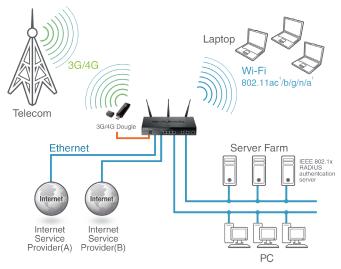
## **Application Control**



## Secure VPN Network Implementation



### **Dual WAN for Redundant Internet**





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.



Technical Specifications			
General	DSR-250V2	DSR-1000AC	
Hardware Version	B1	A1	
Ethernet Interface	1 x 10/100/1000 Mbps WAN port 3 x 10/100/1000 Mbps LAN ports 1 x 10/100/1000 Mbps configurable port	2 10/100/1000 Mbps WAN Ports 4 10/100/1000 Mbps LAN Ports	
Wireless Interface	-	802.11 ac/a/b/g/n (Concurrent dual band) 3 Detachable 2 dBi Omni-Directional Antennas	
Maximum Wireless Speeds <sup>1</sup>	-	450 Mbps - 2.4 GHz 1300 Mbps - 5 GHz	
USBPort	1 x USB 3.0	2 x USB 2.0	
Console Port	RJ-45		
Performance <sup>4</sup>			
Firewall Throughput <sup>3</sup>	950 Mbps	950 Mbps	
VPN Throughput (3DES) <sup>5</sup>	200 Mbps	250 Mbps	
Concurrent Sessions	50,000	100,000	
New Sessions (per second)	2,000	1,000	
Firewall Policies	300	600	
Internet Connection Type			
Static/Dynamic IP	✓		
PPPoE/L2TP/PPTP	✓		
Multiple PPPoE	$\checkmark$		
Firewall System			
Static Route	√		
Dynamic Route	RIP v1/v2, OSPF, OSPFv3		
Dynamic DNS	√		
Inter-VLAN Route	✓		
NAT, PAT	$\checkmark$		
Web Content Filtering	Static URL, Keywords		
Intrusion Prevention System (IPS)	Signature Package Included in Firmware		
Authentication	Internal User Database, Radius, POP3, LDAP, AD, NT Domain		
Application Control	$\checkmark$		



Technical Specifications			
Networking	DSR-250N	DSR-1000AC	
DHCP Server/Client	1024 client		
DHCP Relay	✓		
IEEE 802.11q VLAN	✓		
Number of VLANs (port-based)	16		
IP Multicast	IGMP Proxy, IGMP Snooping		
IPv6	<i>→</i>		
Route Failover	✓		
Outbound Load Balancing	✓		
3G/4G Redundancy	√		
Wireless			
Multiple Service Set Identifier (SSID)	-	✓	
Service Set Identifier (SSID) to VLAN Mapping	-	✓	
Standard	-	802.11 ac/a/b/g/n	
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)	
Virtual Private Network (VPN)			
VPN Tunnels	75	195	
IPSec Tunnels	50	70	
PPTP/L2TP Tunnels	30	50	
GRE	20	25	
OpenVPN Tunnels	20	25	
Encryption Methods	DES, 3DES, AES, Twofish, Blowfish, CAST-128, NULL		
SSL Encryption Methods	RC4-128, 3DES, AES		
IPSec/PPTP/L2TP/OpenVPN Server	✓		
IPSec NAT Traversal	✓		
Dead Peer Detection	✓		
IP Encapsulating Security Payload (ESP)	✓		
IP Authentication Header (AH)	✓		
VPN Tunnel Keep Alive	✓		
Hub and Spoke	$\checkmark$		

Bandwidth Management	DSR-250N	DSR-1000AC
Maximum Bandwidth Control	Classes Minimum/maximum bandwidth control rate	
Priority Bandwidth Control	Low/Medium/High	
System Management		
Web-based User Interface	✓	
Command Line	✓	
SNMP	v1, v2c, v3	
Physical & Environment		
Power Supply	External Power Supply Unit DC 12 V/1.5 A	External Power Supply Unit DC 12 V/3 A
Max. Power Consumption	14.4 W	23.1 W
Dimensions (L x W x H)	190 x 120 x 38 mm	280 x 180 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, RCM, IC, VCCI	
Safety	LVD (EN62368)	
MTBF	1,230,157.85 hours	360,000 hours

<sup>&</sup>lt;sup>1</sup> Maximum wireless signal rate derived from IEEE standard 802.11 and 802.11 and 802.11 ac specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental factors may adversely affect wireless signal range.

<sup>2</sup>The following portable modem are supported: DWM-152 A1, DWM-156 A1/A3/A5/A6/A7/A8, DWM-157 A1/B1/C1/D1, DWM-158 D1/E1 and DWP-157 B1, DWM-221/222, HUAWEI: E1550, E173, EC306 and E303.

<sup>3</sup>Firewall throughput is measured using UDP traffic with a 1,518 bytes packet size, adhering to RFC2544.

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

<sup>5</sup>VPN throughput is measured using UDP traffic with the packet size 1420 bytes and encryption method 3DES plus SHA-1, adhering to PFC2544.





