D-Link®
Building Networks for People

High-Performance Integrated Firewalls
For Business Network Security

- **Integrated Firewall/VPN Appliance**
- **Increase Network Efficiency & Utilization**
- **Multiple User-Configurable Ethernet/Gigabit Interfaces**
- **Powerful Firewall & VPN Data Encryption Performance**
- **Unrestricted User Support**
- **Proactive End-Point Security With D-Link ZoneDefense**

D-Link, the world's leading provider of total network solutions for SOHO and SMB, with products ranging from broadband modems/routers to managed Ethernet/Gigabit switches, wireless LAN, surveillance IP cameras and network storage, introduces a series of high-performance ICSA-certified NetDefend firewalls designed to answer businesses' need for complete network integration across different product lines.

With businesses becoming increasingly network-dependent, investment in a reliable network security solution becomes crucial. D-Link NetDefend firewalls present the next-generation of high-performance, business-class network security solutions, addressing growing concerns over network security, hacker attacks, virus threats and increasing privacy demands. These firewalls provide businesses with the assurance of a dedicated network security solution, with integrated functions including firewall, load balance, fault tolerance, ZoneDefense, content filtering, user authentication, instant message and peer-to-peer application blocking, Denial of Service (DoS) protection and Virtual Private Network (VPN) secure remote connection.

Within an industrial chassis, D-Link NetDefend firewalls pack up an impressive set of hardware that includes high-speed processors, large databases and firewall power to handle up to a million concurrent sessions. These firewalls come with multiple user-configurable interfaces, including high-speed Gigabit ports, for flexible, scalable and bottleneck-free network deployments linking your different workgroups and enterprises together.
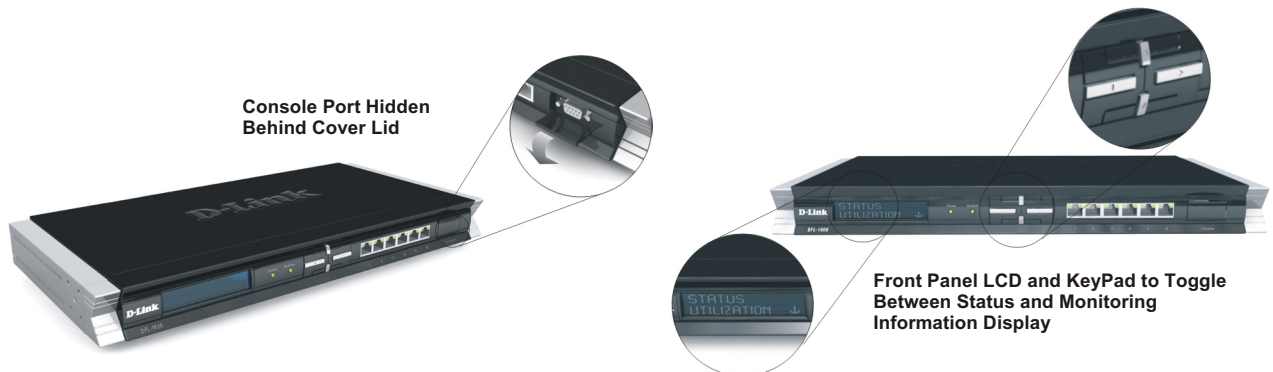
D-Link NetDefend firewalls adopt a unique IPS technology - component-based signatures[3], which are built to recognize and protect against all varieties of known and unknown attacks, and which can address all critical aspects of an attack or potential attack including payload, NOP sled, infection, and exploits. In terms of signature coverage, the IPS database includes attack information and data from a global attack sensor-grid and exploits collected from public sites such as the National Vulnerability Database and Bugtrax.

These firewalls deliver high quality IPS signatures by constantly creating and optimizing NetDefend signatures via the D-Link Auto-Signature Sensor System. Without overloading existing security appliances, these signatures ensure a high ratio of detection accuracy and the lowest ratio of false positives[3].

To minimize any impact of a disaster on an entire network, D-Link NetDefend firewalls include a special feature called ZoneDefense - a mechanism that operates seamlessly with D-Link xStack switches to perform proactive network security. ZoneDefense automatically quarantines infected computers on the network and prevents them from flooding the network with malicious traffic.

D-Link NetDefend firewalls can be remotely managed via a web-based interface or through a dedicated VPN connection. They include flexible features to monitor and maintain a healthy and secure network, such as e-mail alerts, system log and real-time statistics.

FEATURES

Integrated Functions
- Firewall Protection
- Proactive Security With ZoneDefense Mechanism [2]
- Content Filtering/Intrusion Detection & Prevention
- User Authentication
- Instant Message/P2P Blocking
- Denial of Service (DoS) Protection
- Virtual Private Network (VPN) Security
- Bandwidth Management

Content Filtering
- URL/E-Mail Address Filtering
- Java Script/Active X/Cookie Filtering
- IM/P2P Program Filtering

Fault Tolerance
- WAN Traffic Fail-Over
- Active/Passive Modes for High Availability [1]

Bandwidth Management
- WAN Traffic Bandwidth Management
- Multi-WAN Interfaces for Traffic Load Sharing/Load Balancing
- Dynamic Bandwidth Balancing

Hardware
- Powerful Firewall Engines
- Multiple User-Configurable Ports
- High-Speed Gigabit Interfaces [1]

Setup & Management
- Installation Wizard for Quick Setup
- Easy Web-Based Configuration/Management
- Command Line Interface (CLI)
- Logging and Real-Time Monitoring

[1] For DFL-1600 and DFL-2500 only
[2] For DFL-800,DFL-1600 and DFL-2500 only
[3] Component-based signature database is available through advanced IPS subscription.

D NETDEFEND™

ICSA labs CERTIFIED
www.ICSALabs.com
Firewall-Corporate

BÄST I TEST 2006 NÄTVERK

Console Port Hidden Behind Cover Lid

Front Panel LCD and KeyPad to Toggle Between Status and Monitoring Information Display

4 Distinctive Firewalls

For 4 Different Business Sizes

DFL-210 FOR SOHO

- Firewall Throughput: 80Mbps
- VPN Performance: 25Mbps (3DES/AES)
- 1 Ethernet WAN Ports, 4 Ethernet LAN Ports, 1 Ethernet DMZ Port *

DFL-800 FOR SMALL BUSINESS

- Firewall Throughput: 150Mbps
- VPN Performance: 60Mbps (3DES/AES)
- 2 Ethernet WAN Ports, 7 Ethernet LAN Ports, 1 Ethernet DMZ Port *

DFL-1600 FOR MEDIUM BUSINESS

- Firewall Throughput: 320Mbps
- VPN Performance: 120Mbps (3DES/AES)
- 6 User-Configurable Gigabit Ports

DFL-2500 FOR ENTERPRISE

- Firewall Throughput: 600Mbps
- VPN Performance: 300Mbs (3DES/AES)
- 8 User-Configurable Gigabit Ports

* DMZ port is user-configurable

Integrated VPN/Firewall Functions

Complete Range of Firewalls for Workgroups & Enterprises
A complete range of firewalls designed to meet different criteria for workgroups' and enterprises' infrastructures, information security needs, total costs of ownership and performance requirements.

**Next-Generation User Interfaces**
Extreme ease of use and humanized vision embedded in next-generation networking products. NetDefend firewalls make extensive use these features to render your configuration and management tasks as simple as a child's play.

High-Speed Gigabit Interfaces
Multiple user-configurable interfaces, including high-speed Gigabit ports, for flexible, scalable and bottleneck-free network deployments linking different small/medium-sized workgroups and enterprises together.

Proactive Network Security
Minimal disaster impact on your entire network. NetDefend firewalls feature a ZoneDefense mechanism that operates seamlessly with your D-Link LAN switches to perform proactive network security. NetDefend firewall can also block IM/P2P programs and filter contents to increase the efficiency and utilization of your network.
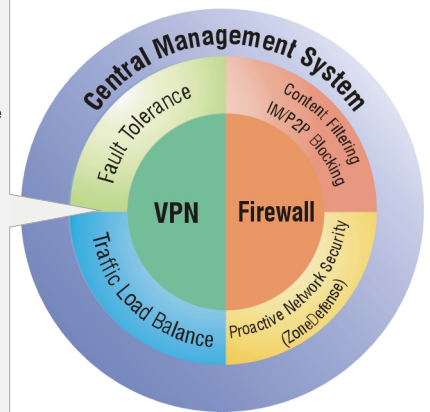
Effective Bandwidth Management
- Traffic Bandwidth Management
- Multi-WAN Interfaces for Traffic Load Sharing
- Policy-Based Routing
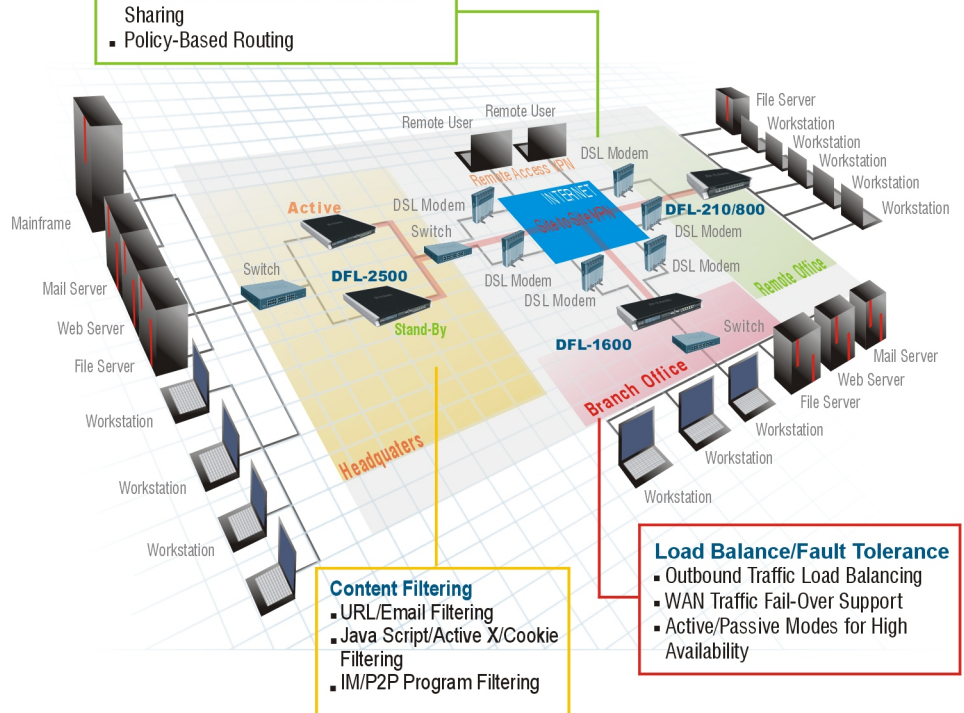
Content Filtering
- URL/Email Filtering
- Java Script/Active X/Cookie Filtering
- IM/P2P Program Filtering

Load Balance/Fault Tolerance
- Outbound Traffic Load Balancing
- WAN Traffic Fail-Over Support
- Active/Passive Modes for High Availability

NETDEFEND™

Specification Chart		DFL-210	DFL-800	DFL-1600	DFL-2500
Interfaces	Multiple User-Configurable Ports	1 Ethernet WAN Port 1 Ethernet DMZ Port [2] 4 Ethernet LAN Ports	2 Ethernet WAN Ports 1 Ethernet DMZ Port [2] 7 Ethernet LAN Ports	6 User-Configurable Gigabit Ports	8 User-Configurable Gigabit Ports
System Performance [3]	Firewall Throughput	80Mbps	150Mbps	320Mbps	600Mbps
	VPN Throughput	25Mbps	60Mbps	120Mbps	300Mbps
	Concurrent Sessions	12,000	25,000	400,000	1,000,000
	Policies	500	1,000	2,500	4,000
Firewall System	Transparent Mode	√	√	√	√
	NAT, PAT	√	√	√	√
	Dynamic Routing Protocol	-	OSPF	OSPF	OSPF
	H.323 NAT Traversal	√	√	√	√
	Time-Scheduled Policies	√	√	√	√
	Application Layer Gateway (ALG)	√	√	√	√
	Proactive Network Security	-	ZoneDefense	ZoneDefense	ZoneDefense
Networking	DHCP Server/Client	√	√	√	√
	DHCP Relay	√	√	√	√
	Policy-Based Routing	√	√	√	√
	IEEE 802.1q VLAN	8	16	128	1024
	IP Multicast [1]	IGMP v3	IGMP v3	IGMP v3	IGMP v3
Virtual Private Network (VPN)	Encryption Methods (DES/3DES/AES/Twofish/Blowfish/CAST-128)	√	√	√	√
	Dedicated VPN Tunnels	100	300	1,200	2,500
	PPTP/L2TP Server	√	√	√	√
	Hub and Spoke	√	√	√	√
	IPSec NAT Traversal	√	√	√	√
System Management	Console Interface	RS-232	RS-232	RS-232	RS-232
	Web-Based User Interface	HTTP, HTTPS	HTTP, HTTPS	HTTP, HTTPS	HTTP, HTTPS
	Command Line/SSH	√	√	√	√
	Firmware Upgrade	√	√	√	√
	Config. Backup/Restore	√	√	√	√
User Authentication	Built-in Database	√	√	√	√
	External Database ▪ RADIUS ▪ LDAP ▪ Microsoft IAS	√ For IPSec Only √	√ For IPSec Only √	√ For IPSec Only √	√ For IPSec Only √
	XAUTH for IPSec Authentication	√	√	√	√
Logging and Monitoring	Internal Log	√	√	√	√
	External Log	Syslog Server	Syslog Server	Syslog Server	Syslog Server
	Email Notification	√	√	√	√
	Event Log and Alarm	√	√	√	√
	SNMP	SNMP v1, v2c [1]	SNMP v1, v2c [1]	SNMP v1, v2c [1]	SNMP v1, v2c [1]
Traffic Load Balancing	Outbound Load Balancing [1]	√	√	√	√
	Server Load Balancing	-	√	√	√
	Load Balance Algorithms	2 Types	3 Types	3 Types	3 Types
	Traffic Redirect at Fail-Over	√	√	√	√
Bandwidth Management	Policy-Based Traffic Shaping	√	√	√	√
	Guaranteed Bandwidth	√	√	√	√
	Maximum Bandwidth	√	√	√	√
	Priority Bandwidth	√	√	√	√
	Dynamic Bandwidth Balancing	√	√	√	√
High Availability (HA)	WAN Fail-Over	√[4]	√	√	√
	Active/Passive Modes	-	-	√	√
	Device Failure Detection	-	-	√	√
	Link Failure Detection	-	-	√	√
	FW/VPN Session Sync.	-	-	√	√
Intrusion Detection & Prevention System (IDP/IPS)	Automatic Pattern Update	√	√	√	√
	DoS, DDoS Protection	√	√	√	√
	Attack Alarm via Email	√	√	√	√
	Advanced IDP/IPS Subscription	√	√	√	√
	IP Blacklist by Threshold or IPS/IDP	-	√	√	√
Content Filtering	HTTP Type [6]	URL	URL	URL	URL
	Script Type	Java, Cookie, ActiveX, VB	Java, Cookie, ActiveX, VB	Java, Cookie, ActiveX, VB	Java, Cookie, ActiveX, VB
	Email Type [5]	File Extension Blacklist	File Extension Blacklist	File Extension Blacklist	File Extension Blacklist
IM/P2P Blocking	Supported IM/P2P Applications (Based on Sep. 22, 2006 Pattern Version)	2 Find Mp3, Aimini, AOL instant Messenger, ANts P2P, Ares P2P, Bit Torrent, Direct Connect, eDonkey, Gnutella, KaZaA, KCeasy, WinMX, iTunes, IRC, MSN Messenger, Yahoo! Messenger			

[1] *Available in future firmware upgrade*
[2] *DMZ port is user-configurable*
[3] *Maximum performance based on RFC 2544 (for firewall). Actual performance may vary depending on network conditions and activated services*
[4] *Available when DMZ port is configured as WAN port*
[5] *For SMTP protocol only*
[6] *For HTTP protocol only*

D NETDEFEND™

Software Features

Firewall System
- Proprietary firewall system kernel, providing more security than open source-based firewalls
- Stateful Packet Inspection
- ZoneDefense with seamless integration with D-Link xStack series switches [2]
- Content filtering, Intrusion Detection & Prevention
- Time-scheduled policy-based routing and bandwidth management

Virtual Private Network (VPN)
- DES/3DES/AES/Twofish/Blowfish/CAST-128 encryption
- IKE v2 and X.509 v3 authentication
- VPN keep alive/Hub and Spoke

Routing and IP Assignment
- IP alias
- DHCP Server/Client/Relay/over IPSec
- OSPF dynamic routing protocol [2]
- HTTP, FTP, SMTP, H.323, SIP [4] Application Layer Gateway
- IEEE 802.1q tag-based VLAN

User Authentication
- Local database, external database with RADIUS/LDAP/Microsoft IAS
- Run-time user authentication
- Multiple authentication servers' simultaneous operation

Bandwidth Management
- Guaranteed/Maximum/Priority bandwidth control
- Outbound traffic load balancing [4]
- Policy-based bandwidth management
- Dynamic Bandwidth Balancing

Traffic/Device Fault Tolerance
- WAN interface fail-over [3]
- Active/passive modes for High Availability [1]

Logging and Reporting
- Device management via HTTP, HTTPS and SSH
- SNMP v1, v2c and SNMP traps [4]
- Real-time system monitoring and event log/alert
- Built-in LCM module for sample configuration [1]

[1] Available on DFL-1600 and DFL-2500 only
[2] Available on DFL-800, DFL-1600 and DFL2500
[3] Available on DFL-210 when DMZ port is configured as WAN port
[4] Available in future firmware upgrade

Physical & Environmental

	DFL-210	DFL-800	DFL-1600	DFL-2500
Power Input	External Power Adapter	External Power Adapter	Internal Universal Power Supply	Internal Universal Power Supply
Dimensions	235 x 162 x 36 mm Desktop Size	280 x 214 x 44 mm Desktop Size	440 x 254 x 44 mm 19-inch Standard Rack-Mount Width, 1U Height	440 x 454 x 44 mm 19-inch Standard Rack-Mount Width, 1U Height
Operating Temperature	0° to 40°C			
Storage Temperature	-20° to 70°C			
Operating Humidity	5% to 95% non-condensing			
EMI	FCC Class A CE Class A C-Tick	FCC Class B CE Class B C-Tick	FCC Class A CE Class A C-Tick	FCC Class A CE Class A C-Tick
Safety	UL LVD (EN60950-1)	LVD (EN60950-1)	LVD (EN60950-1)	LVD (EN60950-1)
MTBF	21,571 Hours	36,879 Hours	19,606 Hours	25,717 Hours

FC CE UL LISTED ITE E141136 66F9   ACN 052 202 838   VPNC CERTIFIED Basic Interop   VPNC CERTIFIED AES Interop

D-Link Worldwide Offices