SUBESTACIÓN HUANCAVELICA 220/60/10kV.

MANUAL DE EQUIPO DE TELECOMUNICACIONES

ROUTER

MARCA: D-LINK

TIPO: DFL-210

BANCO DE INFORMACIÓN TÉCNICA
DEPARTAMENTO DE TRANSMISIÓN ESTE

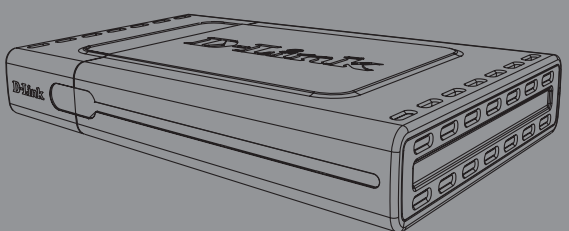
D-Link®
Building Networks for People

NetDefend

Network Security Firewall

This Quick Guide will guide you through the installation Process. You are only moments away from using your new D-Link Network Security Product

DFL-210



DFL-210
Before You Begin

1

1.1 Check Your Package Contents

Your NetDefend Network Security Firewall package should contain all the items listed below. If any of these items is found damaged or missing in your package, report it to your reseller immediately for replacement.

- One (1) DFL-210 NetDefend™ Network Security Firewall
- One (1) 5V DC Power Adapter
- One (1) Console Cable (RS-232 cable)
- One (1) Ethernet (CAT5 UTP/Straight Through) Cable
- One (1) Ethernet (CAT5 UTP/Cross-over) Cable
- One (1) CD-ROM (containing QIG/Manual)

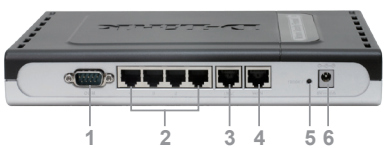
Identifying Components 2

The following illustrates the front panel of the DFL-210 and explains the front panel's key components:

2.1 Front View

1. Power LED	Power indication of the DFL-210.
2. Status LED	System status indication of the DFL-210.
3. WAN LED	WAN port status indication of the DFL-210.
4. DMZ LED	DMZ port status indication of the DFL-210.
5. LAN LED	LAN port status indication of the DFL-210.

2.2 Rear View



1. Console Port	Connects to RS-232 console cable that connects to PC.
2. LAN Ports	These are for the connection of Ethernet cables to the internal network.
3. DMZ Port	This is for the connection of an Ethernet cable to an DMZ network.
4. WAN Port	This is for the connection of an Ethernet cable to a Cable or DSL modem.
5. Reset	This is for resetting system configuration to factory defaults.
6. Power Receptor	This is for the connection of the power adaper to a wall outlet or power strip.

⚠ Note:

WAN interface does not support Auto MDI/MDI-X (Automatic cable detection for Straight-through and Crossover function).

2.3 LED Indicators

LED	Status	Color	Description
Power	Solid green Light off	Green	The device is powered on. The device is powered off.
Status	Solid green Light off Blinking green	Green	System is operating properly. The device is not working. System is defective, such firmware upgrade fail.
WAN	Solid green Blinking green Light off	Green	Link present Port is sending or receiving data. No link
DMZ	Solid green Blinking green Light off	Green	Link present Port is sending or receiving data. No link
LAN	Solid green Blinking green Light off	Green	Link present Port is sending or receiving data. No link

2.4 Default Interface Attribute Definition

Wording on Front plate	Default name in firewall	Default interface type definition	Default interface IP Address	Default DHCP Status
WAN	WAN	DHCP client	N/A	Enabled
DMZ	DMZ	Static IP	172.17.100.254/24	Disable
Ports: 1~4	LAN	Static IP	192.168.1.1/24	Disable

⚠ Note:

NetDefendOS only allows Web GUI access from LAN port by default for security consideration. Please refer to user manual for more detail about how to change this configuration.

Connecting the DFL-210 3

3.1 Connecting Firewall to Your Network

A. First, connect the power cord to the receptor at the back panel of the DFL-210 and then plug the other end of the power cord to a wall outlet or power strip. Then powered on the DFL-210 using the on/off switch. Now the Power LED will turn ON to indicate proper operation. After the power LED turns on, you need to wait 1-2 minutes for the DFL-210 to boot up completely.

B. Connect an Ethernet cable from the DFL-210 to your Cable/DSL modem. If the Cable/DSL modem is powered on, wait for the WAN1 LED on the DFL-210 to light up to show a proper connection. Otherwise, turn off your Cable/DSL modem, connect the Ethernet cable from the DFL-210 to your Cable/DSL modem, and turn on the Cable/DSL modem. Some Cable/DSL modems may not have an on/off switch and will require you to unplug the power adapter.

⚠ Note:

The default management IP address of the DFL-210 is 192.168.1.1. If you have are using a router that uses DHCP, there may be a conflict if the router uses the same IP address as the DFL-210. If this is the case, either disconnect the DFL-210 from the router and change the management IP address of the DFL-210, or change the DHCP settings on your router.

C. Insert an Ethernet cable to the LAN1 port on the front panel of the DFL-210 and connect it to a port on your network hub or switch. The LED light above the Ethernet port on the DFL-210 will illuminate to indicate proper connection

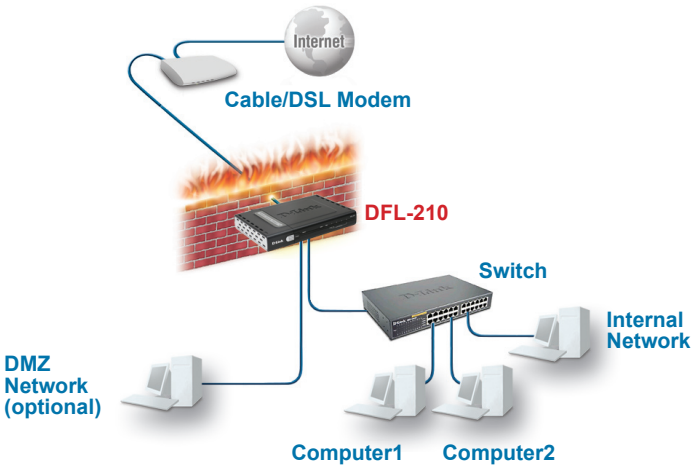
D. Connecting the computer that you will use to configure the DFL-210 to the network hub or switch.

Configure DFL-210 4

4.1 Configure Your Computer's IP Address

Make sure that the network adapter in your computer is configured to use a static IP address with 192.168.1.1 as default gateway and 255.255.255.0 as netmask. Instructions on how to configure the network adapter can be found in the appendix.

When you have completed the steps in this *Quick Installation Guide,* your connected network should look similar to this:



4.2 Using the Setup Wizard

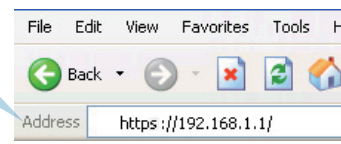
The DFL-210 provides Web based configuration. You can configure your DFL-210 through Internet Explorer 6 and later or Firefox 1.0 and later browser in MS Windows, Macintosh or UNIX based platforms.

Activate your browser, and ensure your built-in Pop-Up Blocker has been disabled, so that the Pop-Up Blocker will not block the Startup Wizard while you initiate the NetDefend Firewall for the first time.

Additionally, in order to reduce the impact of Pop-Up Blocker, a user-friendly mechanism has beem implemented in NetDefend Firewalls. A "Startup Wizard" button is shown on the toolbar since firmware v2.20. This button is available on the WebGUI while the appliance is initiated with Configuration Version 1. Once you complete configuration and save/activate the setting, the Startup Wizard button will be removed automatically from the toolbar while you login WebGUI next time.

Now, let's start on WebGUI login, type the IP address of the DFL-210, e.g. https://192.168.1.1, in the Location (for Netscape) or Address (for IE) field and press "Enter".

Open your Web browser and type **https://192.168.1.1 /** into the URL address box. Then press the Enter or Return key.



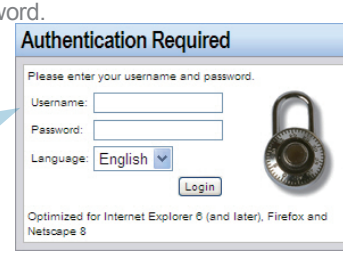
⚠Note:

DFL-210 allows either HTTP or a secure HTTPS connection from any management host. However, for security reason, by default only a secure HTTPS connection is allowed.

Log on to the DFL-210 web interface.

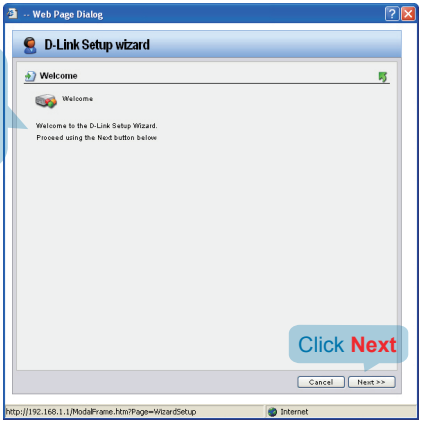
To start using the DFL-210 web interface you need to log on using the default username and password.

Type the default Username/Password
Username: admin
Pasword: admin
and click Login



Step1 - Welcome to the DFL-210 setup wizard!

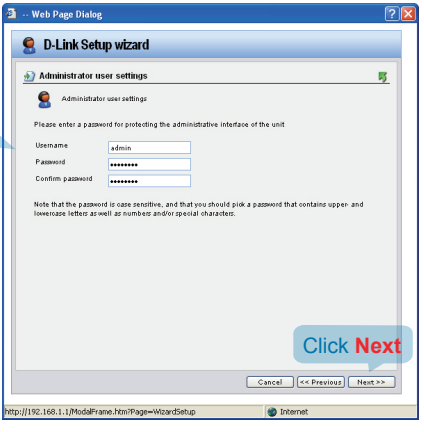
This wizard will guide you through the setup of your DFL-210



Step2 - Set up firewall administrator password

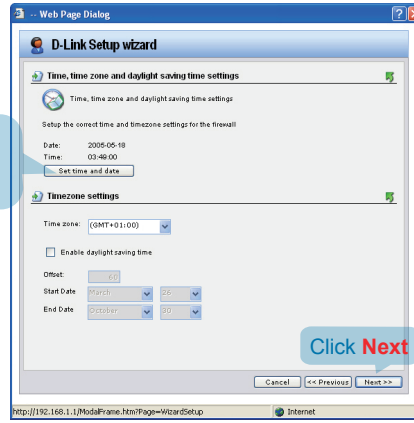
First **Enter** the username that you want to use for the admin account.

Enter the password that you want to use for the admin account.

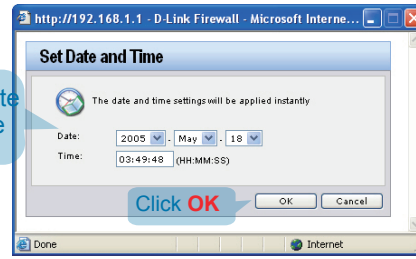


Step 3 - Set up time and date

Click Set time and date button for setting device

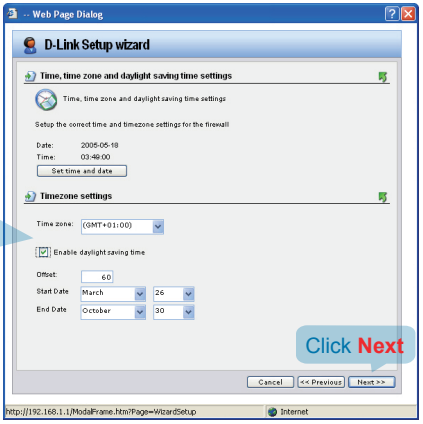


Select the appropriate date
Enter the appropriate time



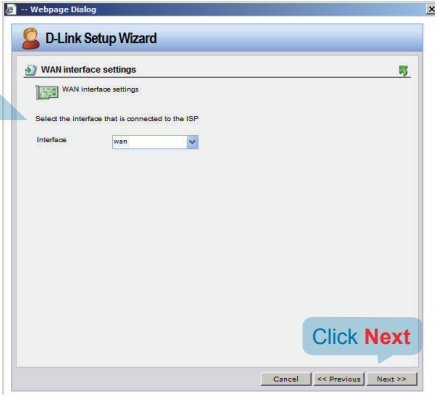
Step 4 - Set up timezone

Select the appropriate timezone.
Enter the appropriate dayligt saving time settings.



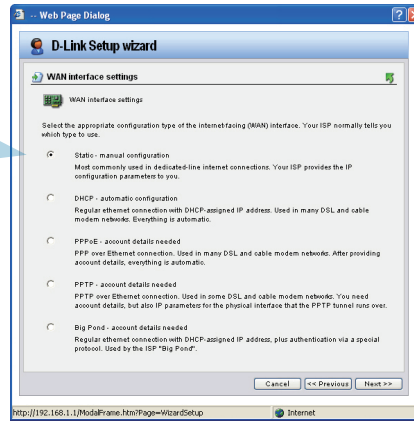
Step 5 - Select WAN interface

Select the WAN interface that you want to use.



Step 6 - Configure WAN interface

Select the appropriate configuration for the WAN interface, Click **Next** and continue to step 7.1 further down.

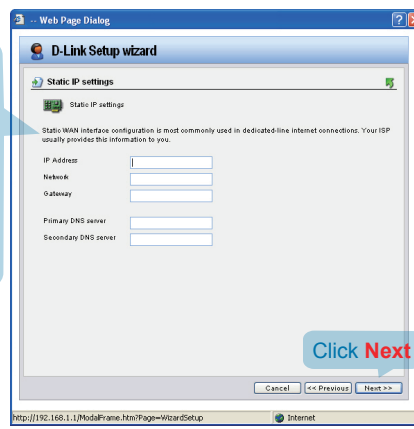


Note:

If you are unsure of which setting to select, please contact your Internet Service Provider.

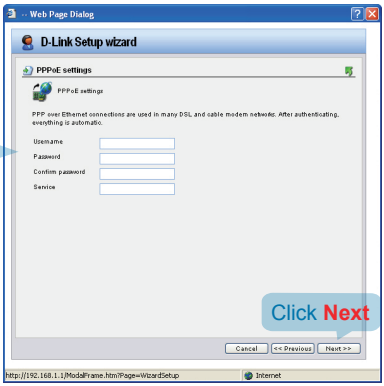
Step 7.1 - WAN Interface Type is Static IP

If you selected Static IP you have to fill out the IP address information provided to you by your ISP. You will need to complete all the required fields except for Secondary DNS Server.



Step 7.2 - WAN Interface Type is PPPoE

If you selected PPPoE (Point-to-Point Protocol over Ethernet) you will have to fill out the user name and password provided to you by your ISP. The PPPoE Service Name field should be left blank unless your ISP informs you otherwise.

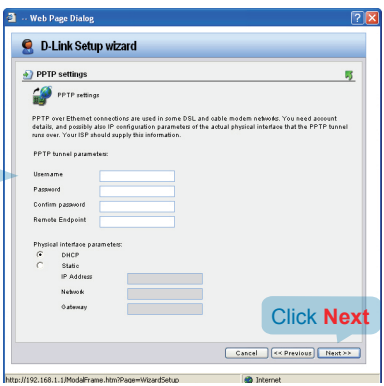


Step 7.3 - WAN Interface Type is PPTP

Enter Username, Password and the PPTP Server IP address provided by your ISP.

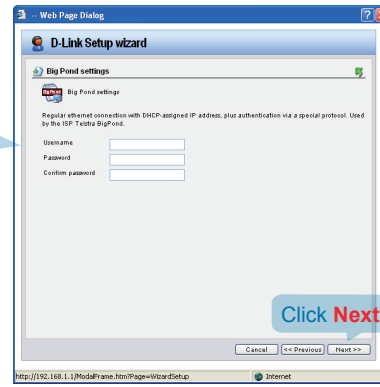
DHCP: If your ISProvider is using DHCP you should select the DHCP radio button.

Static IP: If your Internet Service Provider is using Static IP you should select the Static IP radio button and enter IP Address, choose a Subnet Mask and enter the Gateway IP address.



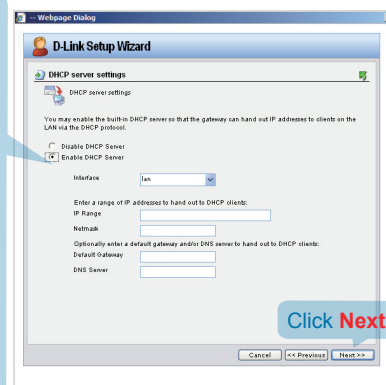
Step 7.4 - WAN Interface Type is Big Pond

If you selected Big Pond you will have to fill out the user name and password provided to you by your ISP.
Click **Next** and continue to step 8.



Step 8 - Set up built-in DHCP server

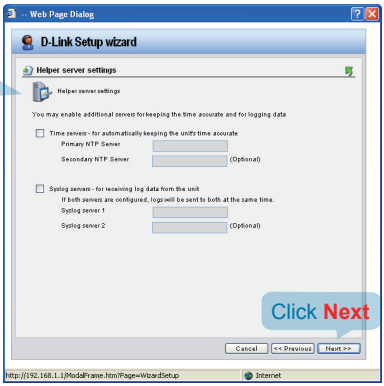
If you want to use the built-in DHCP Server in the DFL-210, choose **Enable DHCP Server** in this screen. You then need to specify a range of IP addresses to hand out to the DHCP clients. This range is entered in the format **"Start IP - Stop IP"** i.e. 192.168.0.100 - 192.168.0.200. If you don't want to use the built-in DHCP Server or configure it later, choose Disable DHCP Server.



Step 9 - Configure helper servers

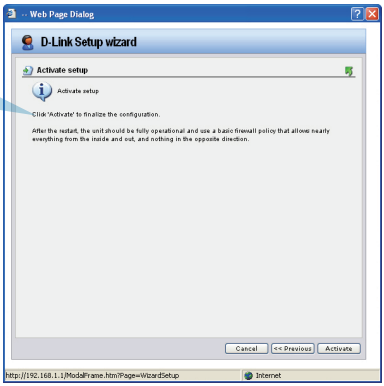
NTP Servers
If enabled, specify which NTP Servers that should be used to syncronize the firewall time

Syslog Servers
If enabled, specify where the firewall should log, you can specify up to two Syslog recievers



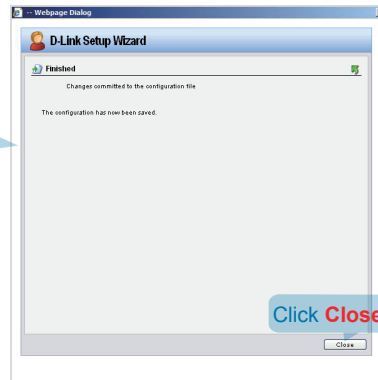
Step10 - Setup Wizard Complete

Click **Activate** to complete your configuration.



Step 11 - Confirmation

Confirm the changes committed to the configuration file and it has been saved now.

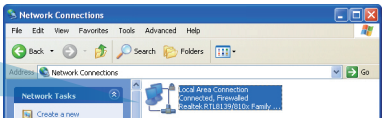


Appendix 5

To connect to the DFL-210 Network Security Firewall, make sure the network adapter in your computer is configured properly. Here is how to configure the network adapter manually to the correct IP-address.

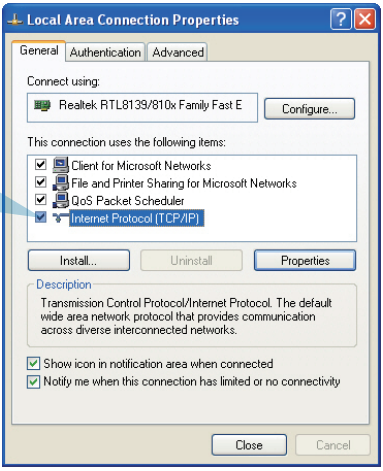
5.1 How to configure Static IP Manually on Microsoft Windows XP

Go to **Start** > **right click** on **My Network Places** > select **Properties** > **Right-click** on the **Network Connection** of the Ethernet adapter connecting to the DFL-210 and select Properties.

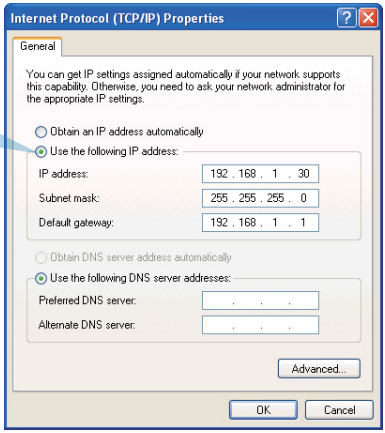


Click Internet Protocol (TCP/IP)

Click Properties



Select Use the following IP address
Set IP address to 192.168.1.30,
Subnet mask to 255.255.255.0
and Default gateway to 192.168.1.1
Click OK

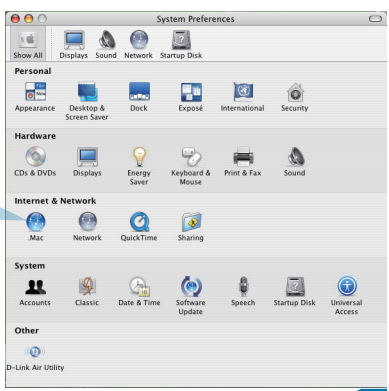


Note:

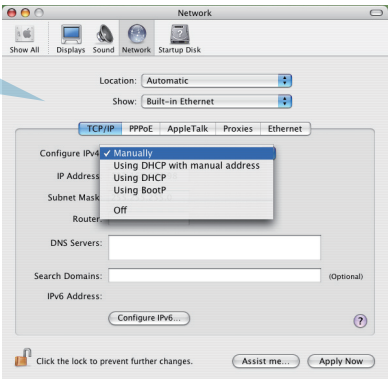
Except for 192.168.1.1, you could set your PC with any IP addresses that same as the 192.168.1.0/ 255.255.255.0 subnet.

5.2 How to Configure Static IP Manually on Apple Mac OS X

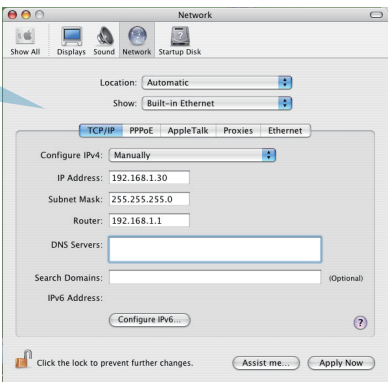
Go to the Apple Menu
Click on Network
and Select System Preferences
Click on Network



Select Built-in Ethernet in the show pull down menu
Select Manually in the Configure pull down menu



Set IP Address to 192.168.1.30, Subnet Mask to 255.255.255.0 and Router to 192.168.1.1.
Click on Apply Now



STATEMENT 6

EMI Statement

FCC Warning
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CE Mark Warning
This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Warnung!
Dies ist ein Produkt der Klasse A. Im Wohnbereich kann dieses Produkt Funkstoerungen verursachen. In diesem Fall kann vom Benutzer verlangt werden, angemessene Massnahmen zu ergreifen.

Precaución!
Este es un producto de Clase A. En un entorno doméstico, puede causar interferencias de radio, en cuyo case, puede requerirse al usuario para que adopte las medidas adecuadas.

Attention!
Ceci est un produit de classe A. Dans un environnement domestique, ce produit pourrait causer des interférences radio, auquel cas l`utilisateur devrait prendre les mesures adéquates.

Attenzione!

Il presente prodotto appartiene alla classe A. Se utilizzato in ambiente domestico il prodotto può causare interferenze radio, nel cui caso è possibile che l`utente debba assumere provvedimenti adeguati.

VCCI Warning

この装置は、クラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

BSMI Warning

警告使用表

這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下使用者會被要求採取某些適當的對策。

DFL-210 | Ficha Técnica

NetDefend VPN Firewall for SMB

Segurança na rede e acesso remoto VPN

ADMINISTRACIÓN DEL SISTEMA
ASISTENTE DE INSTALACIÓN
Sí
CONSOLA INTERFACE
Sí
WEB UI INTERFAC
Sí
COMMAND LINE INTERFACE (CLI)
Sí
SECURE COMMAND SHELL (SSH)
*
SOPORTE DE SISTEMA DE ADMINISTRACIÓN CENTRAL
Sí
PROTECCIÓN DE CPU Y MEMORIA
*
SNTP Y UDP TIME SYNCHRONIZATION
Sí
ADMINISTRACIÓN DE USUARIOS Y EQUIPO
MÚLTIPLES ADMINISTRADORES
Soportado en el sistema Administración Central
CONTROL DE PERMISOS DE USUARIO DE MULTI-NIVE
Soportado en el sistema Administración Central
CUENTA ADMINISTRATIVA SOLO LECTURA (READ ONLY)
Sí
ACTUALIZACIÓN DE SOFTWARE, CONFIGURACIÓN BACKUP/ RESTORE
Web UI
TFTP*
DEFINICIÓN DE HOST CONFIABLE PARA ADMINISTRACIÓN REMOTA
Sí
AUTENTICACIÓN DE USUARIO
BASE DE DATOS LOCAL
150 items
BASE DE DATOS EXTERNA
RADIUS, LDAP*, Active Directory
AUTENTICACIÓN EN LÍNEA CON BASE DE DATOS INTERNA O EXTERNA
Sí
AUTENTICACIÓN DE USUARIOS POR GRUPOS
Sí
SOPORTE DE MÚLTIPLES SERVIDORES DE AUTENTICACIÓN AL MISMO TIEMPO
Máximo 3 Servidores
IP Y MAC ADDRESS BINDING
Hasta 64 items
XAUTH (EXTENDED AUTHENTICATION)
Para autenticación IPSec
LOGGING Y MONITOREO
CAPACIDAD DE LOGS INTERNO
500 records
VISUALIZADOR LOG
Sí
NOTIFICACIÓN POR EMAIL
Sí
SOPORTE DE SERVIDOR LOG EXTERNO
Syslog server
FORMATO DE EXPORTACIÓN LOG
CSV (Soportado en el sistema Administración Central)
MONITOREO DE RENDIMIENTO EN TIEMPO REAL
Sí
LOG DE EVENTOS Y ALARMAS
Sí
ADMINISTRACIÓN DE MENSAJES DE LOG
Sorting/Filtering/Search*
SOPORTE SNMP V1, V2C
Sí
SNMP TRAP
*
SNMP STANDARD MIB-II Y CUSTOM MIB
*
MONITOREO DE TÚNEL VPN
Sí
ADMINISTRACIÓN DE ANCHO DE BANDA
ANCHO DE BANDA GARANTIZADO
Sí

ANCHO DE BANDA MÁXIMO
UTILIZACIÓN PRIORIDADES ANCHO DE BANDA
Sí
POLÍTICAS BASADAS EN TRAFFIC SHAPING
Sí
TRAFFIC SHAPING PROGRAMABLES EN EL TIEMPO
Sí
ADMINISTRACIÓN ANCHO DE BANDA EN EL TÚNEL VPN
Sí
ALTA DISPONIBILIDAD (AH)
WAN FAILOVER
Sí
SISTEMA DE DETECCIÓN DE INTRUSO (IDS)
PATRONES NIDS AUTO ACTUALIZABLES
Sí
PROTECCIÓN CONTRA ATAQUES DOS Y DDOS
Sí
DETECCIÓN DE ATAQUES NIMDA, CODERED
Sí
LISTA NEGRA DE IP
Support 128 IP/subnet items*
ALARMA DE ATAQUE POR NOTIFICACIÓN DE CORREO
Sí
FILTRO DE CONTENIDO
FILTRO DE CONTENIDO
Filtro URL, Filter Keyword*, Exempt list
SCRIPTS
Java Applet, Java Scripts, VB Scripts, Cookies, Active X
EMAIL*
Black list, Keyword, Exempt list
BLOQUEOS DE PROGRAMAS P2P
Sí
BLOQUEOS DE PROGRAMAS IM
*
BALANCEO DE CARGA DE TRÁFICO
BALANCEO DE CARGA DE TRÁFICO DE SALIDA
*
ALGORITMO DE BALANCEO DE CARGA
Round Robin
Connection Rate
TRÁFICO REDIRIGIDO CUANDO FALLA ALGUNA CONEXIÓN
Sí
LEDS INDICATORS POR DISPOSITIVO
POWER
Sí
STATUS
Sí
WAN
Sí
LAN
Sí
DMZ
Sí

CARACTERÍSTICAS FÍSICAS
ALIMENTACIÓN ELÉCTRICA
5V / 3A External AC to DC Switching Power Adaptor
DIMENSIONES
235 x 162 x 36 mm. Desktop Size
TEMPERATURA OPERACIÓN
0°C a 40°C
TEMPERATURA ALMACENAJE
-20°C a 70°C
HUMEDAD
5% a 95% No Condensado
EMISIÓN (EMI)
- FCC Class A
- CE Class A
- C-Tick
SEGURIDAD
- UL
- LVD (EN60950)
- TUV

* Disponible en futura actualización de firmware

CARACTERÍSTICAS TÉCNICAS

PUERTAS
LAN : 04 Ports 10/100 Base-TX Autosensing
WAN : 01 Port 10/100 Base-TX Autosensing
DMZ : 01 Port Configurable 10/100 Base-TX Autosensing
Serial : RS-232 (9 pines)
CPU
Risc 266 MHz
SDRAM
128MB
FLASH
128MB
RENDIMIENTO Y CAPACIDADES MÁXIMAS
FIREWALL PERFORMANCE
80 Mbps
AES/3DES PERFORMANCE
25 Mbps
CURRENT SESSION
12,000
NEW SESSION/SECONDS
2,000
POLÍTICAS
500
USUARIOS SOPORTADOS
150
MODOS DE OPERACIÓN FIREWALL
LAYER 3 MODE
Modo Route y NAT
LAYER 2 MODE
Modo Transparente
NAT (NETWORK ADDRESS TRASLATION)
Sí
PAT (PORT ADDRESS TRASLATION)
Sí
POLÍTICAS BASADAS EN NAT
Sí
PORT FORWARDING
Sí
CONFIGURACIÓN DE POLÍTICAS PROGRAMABLES EN EL TIEMPO
Sí
VIRTUAL NETWORK PRIVATE (VPN)
PROTOCOLO IPSEC
AH, ESP
MODO IPSEC
Túnel y Transporte
MÉTODO ENCRIPTACIÓN
DES/3DES/AES/Twofish/Blowfish/CAST-128/ NULL
ALGORITMO AUTENTICACIÓN
MD5, SHA-1
GRUPO PFS
Perfect Forward Secrecy (DH Group): Group 1, 2, 5
SERVIDOR VPN
PPTP/L2TP/IPSec
SERVIDOR PPTP
Encriptación MPPE
VPN SITE TO SITE
Sí
REMOTE ACCESS FOR IPSEC
Sí
TÚNELES DEDICADOS
100
MODO IKE
Main, Aggressive
ADMINISTRACIÓN DE LLAVES
PRE-SHARE KEY
X.509 v3
Manual Key*
Soporte IKE v2

IPSEC NAT TRANSVERSAL
Sí
SELECCIÓN DE POLÍTICAS VPN
Routing / Policy-Base Routing
DEAD PEER DETECTION
Sí
VPN TUNNEL KEEP ALIVE
Sí
PREVENCIÓN CONTRA REPETICIÓN DE ATAQUES (REPLAY ATTACK)
Sí
SOPORTE VPN ESTRELLA (HUB AND SPOKE)
Sí
DIRECCIONAMIENTO IP & ROUTING
STATIC IP ADDRESS
Sí
MODOS
PPPoE para xDSL
Cliente PPTP para xDSL
Cliente DHCP para interface WAN
BigPond Cable, Telia compliance
SERVIDOR DHCP INTERNO
Sí
DHCP RELAY
Sí
DHCP SOBRE IPSEC
Sí
IP ALIAS
Sí
STATIC ROUTES
Sí
RUTEO BASADO EN POLÍTICAS
Sí
NETWORKING
Sí
SOPORTE DE MÚLTIPLES ENLACES WAN
Hasta 8 VLANs
SOPORTE DE VLAN IEEE 802.1Q
Sí
IP INTERFACE
8 items
IP MULTICAST
IGMP 2*, IGMP snooping*
H.323 NAT TRAVERSAL
Sí
SOPORTE DE ALG (APPLICATION LAYER GATEWAY)
HTTP, FTP, H.323
SMTP*, SIP*, DNS*

D-Link®
Building Networks for People

DFL-210 | Descripción Comercial

NetDefend VPN Firewall for SMB
Firewall VPN NetDefend para empresas SMB

GENERAL

D-Link NetDefend, presenta la nueva serie de soluciones de seguridad para empresas de tamaño medio y pequeño. Este Firewall de la línea Net Defend puede ofrecerle un alto retorno de inversión a través de las robustas características de seguridad, configuración flexible y máxima protección de la red.

El Firewall DFL-210 NetDefend, provee de una solución de garantía en seguridad para su red, con funciones integradas tales como firewall, balanceo de carga, tolerancia de fallas, filtro de contenidos, autentificación de usuarios, aplicaciones de bloqueo para mensajería instantánea y peer-to-peer*, protección Denial of Service (DoS), y soporte para redes virtuales (VPN). Este firewall está diseñado para satisfacer las necesidades de seguridad y acceso remoto de las empresas que demandan un alto rendimiento a precios competitivos. Por lo tanto, se convierte en una poderosa solución al integrar todas estas funciones avanzadas en un mismo dispositivo, llevándolo a ser una solución de seguridad para las pequeñas y medianas empresas.

El Firewall DFL-210 puede ser administrado a través de su interfase vía web o a través de una conexión dedicada VPN. Incorpora aplicaciones flexibles para monitorear y mantener a salvo la seguridad de la red, tales como alertas por e-mails, System Log y estadísticas en tiempo real. Estas características, junto con la habilidad de auto-actualización de firmware, garantizan el máximo rendimiento y seguridad para su red

• PRINCIPALES CARACTERÍSTICAS

· 1 puerta WAN, 1 puerta DMZ (configurable) y 4 LAN
· Soporte hasta 12000 sesiones concurrentes
· Soporte de hasta 100 túneles VPNs, rendimiento hasta 25Mbps
· Administración del ancho de banda
· Balanceo de carga
· Filtrado de contenido
· Soporte IDS
· Protección DoS
· System Log y estadística en tiempo real

CARACTERÍSTICAS PRINCIPALES

- Integra facilidades de Firewall y VPN
- Seguridad proactiva de trabajo en la red
- Incrementa la eficiencia de la red
- Excelente performance de encriptación Firewall & VPN
- Soporte de restricciones para usuarios