



Formación técnica
especializada

D-Link Academy

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ACADEMY
> WEBINARS

20 años
espectaculares

D-Link[®]
IBERIA

Seguridad en la Red LAN



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Video de esta formación disponible en
<https://www.youtube.com/user/DLINKIberiaTV>

D-Link

Agenda

Paso a paso para la programación mediante WebGUI y Command Line Interface (CLI) de las funciones de seguridad para las redes de datos corporativas

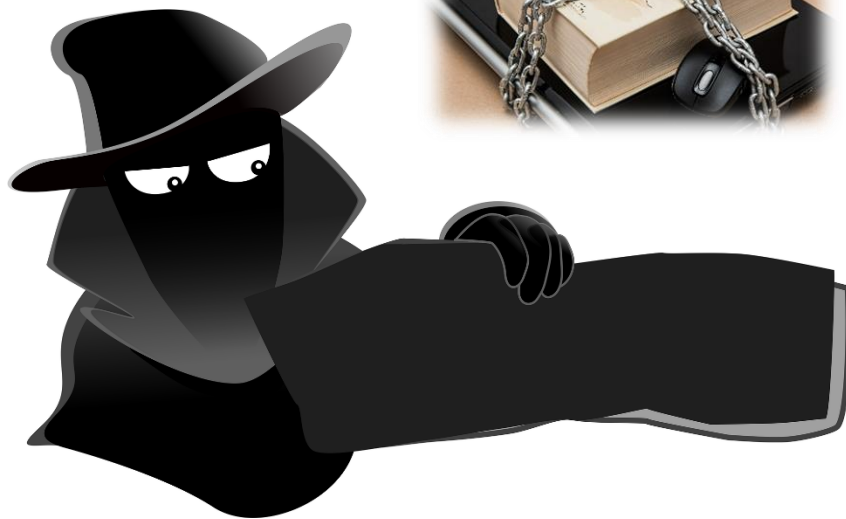
- Trusted Host
- Port Security
- IP-MAC Port Binding
- DHCP Snooping
- Dynamic ARP Inspection
- IP Spurce Guard
- Gateway&DHCP Server
- DHCP Server Screening
- Storm Control
- D-Link Safeguard Engine

Otra función clave para la seguridad es Access Control List (ACL), formación especializada disponible en este enlace:

<https://eu.dlink.com/es/es/resource-centre/articles/como-configurar-listas-control-accesos-acl-para-seguridad-redes>

¿Qué es la seguridad?

- ❑ Información valiosa
- ❑ Cambios inesperados
- ❑ Gestión **proactiva**/reactiva



Seguridad Física

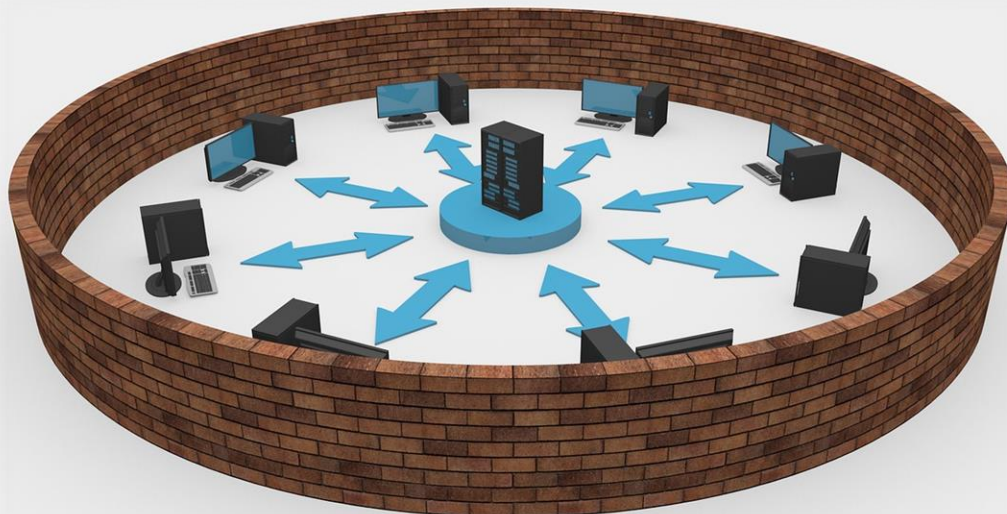


DCS-7517

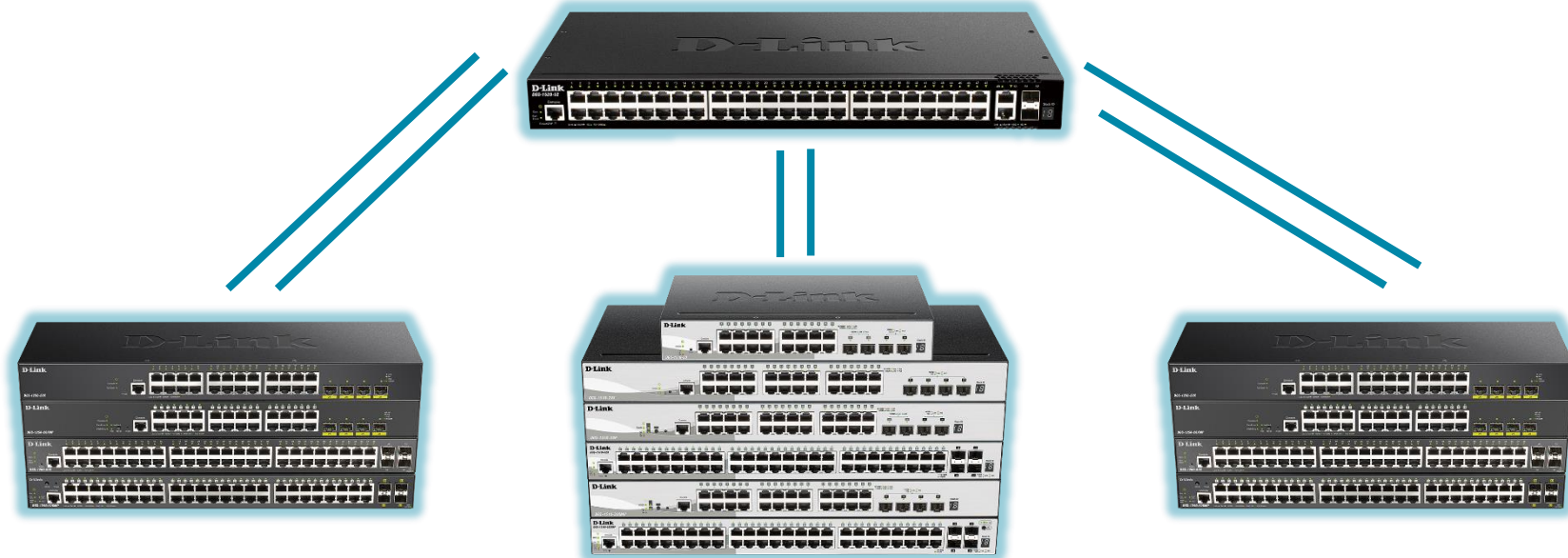
DCS-4625

DCS-7517

Seguridad Perimetral



Seguridad en nuestra LAN



Acceso – Management




DGS-3130-30TS



Acceso – Management

- Credenciales seguras
- Encriptar la **contraseña**
- Habilitar accesos seguros:
 - ✓ **SSH**
 - × **TELNET**

Connect to 10.90.90.90



User Name

Password

Language ▾

Acceso – Management (WEB UI)

The image shows a two-step process in the D-Link web management interface:

- Step 1:** Navigating to the 'User Accounts Settings' page from the left-hand menu.
- Step 2:** Configuring the 'User Management Settings' for the 'dlink' user, including setting the privilege level to 15 and the password type to 'Plain Text'. The 'Apply' button is also highlighted.
- Step 3:** Clicking the 'Apply' button to save the user account settings.
- Step 4:** Navigating to the 'Password Encryption' page from the left-hand menu.
- Step 5:** Configuring the 'Password Encryption Settings', specifically enabling the state and selecting 'Encrypted-SHA1' as the password type.
- Step 6:** Clicking the 'Apply' button to save the password encryption settings.

Acceso – Management (WEB UI)

1 Click on the 'Telnet/Web' menu item in the left sidebar.

2 In the 'Telnet/Web' configuration page, click on the 'Disabled' radio button for 'Telnet State'.

3 Click the 'Apply' button at the bottom right of the 'Telnet/Web' configuration page.

4 In the left sidebar, click on the 'Login Method' menu item.

5 In the 'Login Method' configuration page, click the 'Edit' button for the 'Telnet' login method.

Telnet/Web Configuration Details:

- Telnet State: Enabled Disabled
- Port (1-65535): 23
- Source Interface:
 - Source Interface State: Enabled Disabled
 - Type: VLAN VID (1-4094)
- Web Settings:
 - Web State: Enabled Disabled
 - Port (1-65535): 80

Login Method Configuration Details:

Application	Login Method	Action
Console	No Login	Edit
Telnet	Login	Edit
SSH	Login	Edit

Login Password Configuration Details:

- Application: Console
- Password Type: Plain Text
- Password: 32 chars

Acceso – Management (WEB UI)

The image illustrates the steps to configure SSH on a D-Link device via the Web UI:

- 1**: Access the configuration menu on the left side of the interface.
- 2**: Select **SSH Global Settings** from the menu. The **SSH Global Settings** page is displayed, showing the **IP SSH Server State** set to **Enabled**.
- 3**: Click the **Apply** button to save the configuration.
- 4**: Return to the configuration menu and select **Host Key**.
- 5**: The **Host Key Management** page is shown. The **Crypto Key Type** is set to **RSA** and the **Key Modulus** is set to **2048**.
- 6**: Click the **Generate** button to generate the host key.

Acceso – Management (CLI)

```
Switch#configure terminal
```

```
Switch(config)#username dlink privilege 15 password P4ssw0rdD
```

```
Switch(config)#service password-encryption ?
```

```
<cr>          Press enter to execute the command  
15           Specifies the password encryption based on MD5  
7           Specifies the password encryption based on SHA-1
```

```
Switch(config)#service password-encryption 7
```

Acceso – Management (CLI)

```
Switch(config)#no ip telnet server
```

```
Switch#show ip telnet server
```

```
Server State: : Disabled
```

```
Switch(config)#ip ssh server
```

```
Switch#show ip ssh
```

```
IP SSH server           : Enabled
IP SSH service port     : 22
SSH server mode         : V2
Authentication timeout  : 120 secs
Authentication retries  : 3 times
```

```
Switch#crypto key generate rsa
```

```
The RSA key pairs already existed.
Do you really want to replace them? (y/n) [n]: y
```

```
Choose the size of the key modulus in the range of 360 to 2048. The process
may take a few minutes.
```

```
Number of bits in the modulus [768]: 2048
```

```
Generating RSA key...Done.
```

Acceso – Management

- Dirección **IP** por defecto
(10.90.90.90)
- Creación de **VLANs**
- Deshabilitar** los
puertos no utilizados



Acceso – Management (WEB UI)

1

Fuzzy Search

- DGS-3130-30TS
- System
- Management
- L2 Features
- L3 Features
- ARP
- Gratuitous ARP
- IPv6 Neighbor
- Interface
 - IPv4 Interface
 - IPv6 Interface

IPv4 Interface

Interface VLAN (1-4094)

Apply Find

Total Entries: 1

Interface	State	IP Address	Secondary	Link Sta	
vlan1	Enabled	10.90.90.90/255.0.0.0 (Manual)	No	Down	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

1/1 < > 1 Go

2

IPv4 Interface Configure

IPv4 Interface Settings DHCP Client

Interface vlan1

Settings

State

IP MTU (512-16383) bytes

IP Directed Broadcast

Description

IP Settings

Get IP From

IP Address

Mask

Secondary

3

4

Acceso – Management (WEB UI)

802.1Q VLAN

VID List: Apply Delete

Find VLAN

VID (1-4094):

Find Show All

Total Entries: 2

VID	VLAN Name	Tagged Member Ports	Untagged Member Ports	VLAN Type	Edit	Delete
1	default		1/0/1-1/0/30		Edit	Delete
2	VLAN0002	Super VLAN			Edit	Delete

1/1 << 1 >> Go

VLAN Interface

VLAN Interface

Port	VLAN Mode	Ingress Checking	Acceptable Frame Type	Show Detail	Edit
eth1/0/1	Hybrid	Enabled	Admit-All	Show Detail	Edit
eth1/0/2	Hybrid	Enabled	Admit-All	Show Detail	Edit
eth1/0/3	Hybrid	Enabled	Admit-All	Show Detail	Edit
eth1/0/4	Hybrid	Enabled	Admit-All	Show Detail	Edit
eth1/0/5	Hybrid	Enabled	Admit-All	Show Detail	Edit
eth1/0/6	Hybrid	Enabled	Admit-All	Show Detail	Edit
eth1/0/7	Hybrid	Enabled	Admit-All	Show Detail	Edit
eth1/0/8	Hybrid	Enabled	Admit-All	Show Detail	Edit
eth1/0/9	Hybrid	Enabled	Admit-All	Show Detail	Edit

Acceso – Management (WEB UI)

1

Navigation menu showing 'Port Settings' selected under 'System' > 'Port Configuration'.

2

Port Settings configuration page. The 'From Port' field is circled in red. Other settings include To Port (eth1/0/4), Medium Type (RJ45), State (Disabled), MDIX (Auto), Auto Downgrade (Disabled), and Flow Control (Off).

Port	Link Status	State	MDIX	Flow Control		Duplex	Speed	Auto Downgrade	Description
				Send	Receive				
eth1/0/1	Down	Disabled	Auto-MDIX	off	off	Auto-duplex	Auto-speed	Disabled	
eth1/0/2	Down	Disabled	Auto-MDIX	off	off	Auto-duplex	Auto-speed	Disabled	
eth1/0/3	Down	Disabled	Auto-MDIX	off	off	Auto-duplex	Auto-speed	Disabled	
eth1/0/4	Down	Disabled	Auto-MDIX	off	off	Auto-duplex	Auto-speed	Disabled	
eth1/0/5	Down	Enabled	Auto-MDIX	off	off	Auto-duplex	Auto-speed	Disabled	

3

Navigation menu showing 'Port Status' selected under 'System' > 'Port Configuration'.

Port Status page showing a table of port configurations.

Port	Status	MAC Address	VLAN	Flow Control Operator		Duplex	Speed	Type	Last LinkChange
				Send	Receive				
eth1/0/1	Disabled	60-63-4C-53-AD-12	1	off	off	Auto	Auto	1000BASE-T	0:25:24:65
eth1/0/2	Disabled	60-63-4C-53-AD-13	1	off	off	Auto	Auto	1000BASE-T	0:0:0:0
eth1/0/3	Disabled	60-63-4C-53-AD-14	1	off	off	Auto	Auto	1000BASE-T	0:0:0:0
eth1/0/4	Disabled	60-63-4C-53-AD-15	1	off	off	Auto	Auto	1000BASE-T	0:0:0:0
eth1/0/5	Not-Connected	60-63-4C-53-AD-16	1	off	off	Auto	Auto	1000BASE-T	0:0:0:0

Acceso – Management (CLI)

```
Switch#configure terminal  
Switch(config)#interface vlan 1  
Switch(config-if)#ip address 10.90.90.94 255.255.255.0
```

```
Switch#show ip interface brief  
  
Interface      IP Address      Link Status  
-----  
vlan 1         10.90.90.94     down  
mgmt_ipif     192.168.0.1     up  
  
Total Entries: 2
```

Acceso – Management (CLI)

```
Switch#configure terminal  
Switch(config)#vlan 2
```

```
Switch#show vlan  
  
VLAN 1  
  Name : default  
  Tagged Member Ports :  
  Untagged Member Ports : 1/0/1-1/0/30  
  
VLAN 2  
  Name : VLAN0002  
  Tagged Member Ports :  
  Untagged Member Ports :  
  
Total Entries : 2
```

```
Switch(config)#interface ethernet 1/0/2  
Switch(config-if)#switchport mode access  
Switch(config-if)#switchport access vlan 2
```

Acceso – Management (CLI)

```
Switch(config)#interface range ethernet 1/0/1-4  
  
Switch(config-if-range)#shutdown
```

```
Switch#show interfaces status
```

Port	Status	VLAN	Duplex	Speed	Type
eth1/0/1	disabled	1	auto	auto	1000BASE-T
eth1/0/2	disabled	2	auto	auto	1000BASE-T
eth1/0/3	disabled	1	auto	auto	1000BASE-T
eth1/0/4	disabled	1	auto	auto	1000BASE-T
eth1/0/5	not-connected	1	auto	auto	1000BASE-T
eth1/0/6	not-connected	1	auto	auto	1000BASE-T

Trusted Host

- ❑ Acceso a **IPs** confiables
- ❑ Creación de **ACLs**
- ❑ Personalizar accesos

web, telnet & SSH



Trusted Host (WEB UI)

1

Fuzzy Search

- DGS-3130-30TS
 - System
 - Management
 - L2 Features
 - L3 Features
 - QoS
 - ACL
 - ACL Configuration Wizard
 - ACL Access List
 - ACL Interface Access Group
 - ACL M-AM Access Map

ACL Access List

ACL Access List

ACL Type: All | ID (1-1999) | ACL Name: 32 chars | Find

Total Entries: 0

Add ACL

ID	ACL Name	ACL Type	Start Sequence No.	Step
Sequence No.	Action	Rule	Time Range	

Add Rule

2

Add ACL Access List

Add ACL Access List

ACL Type: Standard IP ACL

ID (1-1999): 1

ACL Name: ACL_TRUSTED

Apply

3

4

Note: The first character of ACL name must be a letter.

Trusted Host (WEB UI)

ACL Access List

ACL Access List

ACL Type: ID (1-14999) ACL Name

Total Entries: 1

ID	ACL Name	ACL Type	Start Sequence No.	Step	
1	ACL_TRUSTE...	Standard IP ACL	10	10	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

1/1 << < 1 > >>

ACL_TRUSTED (ID: 1) Rule

Sequence No.	Action	Rule	Time Range
--------------	--------	------	------------

Add ACL Rule

Add ACL Rule

ID: 1

ACL Name: ACL_TRUSTED

ACL Type: Standard IP ACL

Sequence No. (1-65535): (If it is not specified, the system automatically assigns.)

Action: Permit Deny

Match IP Address

Source: Any Host IP Wildcard

Destination: Any Host IP Wildcard

Time Range:

2

1

3

Trusted Host (WEB UI)

1 Trusted Host

2 ACL Name: ACL_TRUSTED Type: HTTPS

3 Apply

Note: The first character of ACL name must be a letter.

Type	ACL Name	
HTTPS	ACL_TRUSTED	Delete

Trusted Host (CLI)

```
Switch(config)#ip access-list ACL_TRUSTED
```

```
Switch(config-ip-acl)#permit host 10.90.90.4 any
```

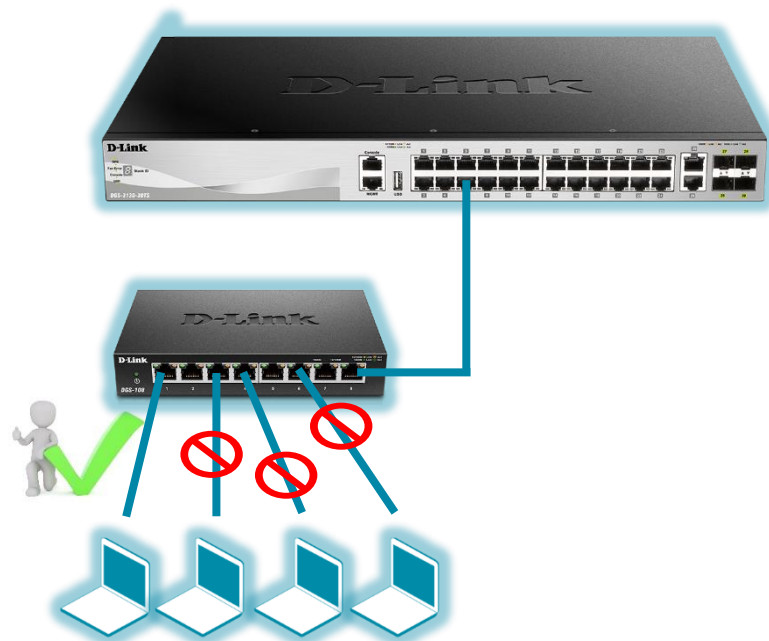
```
Switch#show access-list ip ACL_TRUSTED
```

```
Standard IP access list ACL_TRUSTED(ID: 1999)  
 10 permit host 10.90.90.4 any
```

```
Switch(config)#ip http access-class ACL_TRUSTED
```

Port Security

- ❑ Filtrar a nivel de **PUERTOS**
- ❑ Limitar accesos **múltiples**
- ❑ Modo **ErrDisable** para puertos bloqueados



Port Security (WEB UI)



Fuzzy Search

- DGS-3130-30TS
- System
- Management
- L2 Features
- L3 Features
- QoS
- ACL
- Security
 - Port Security
 - Port Security Global Settings
 - Port Security Port Settings**
 - Port Security Address Entries
- 802.1X

Port Security Port Settings

Port Security Port Settings

From Port: eth1/0/1 To Port: eth1/0/1 State: Enabled Maximum (0-64): 1 Violation Action: Shutdown Security Mode: Permanent Aging Time (0-1440): 0 Aging Type: Absolute

Apply

Port	Maximum	Current No.	Violation Action	Violation Count	Security Mode	Admin State	Current State	Aging Time	Aging Type
eth1/0/1	1	1	Shutdown	-	Permanent	Enabled	Forwarding	0	absolute
eth1/0/2	32	0	Protect	-	Delete-on-Timeout	Disabled	-	0	absolute
eth1/0/3	32	0	Protect	-	Delete-on-Timeout	Disabled	-	0	absolute
eth1/0/4	32	0	Protect	-	Delete-on-Timeout	Disabled	-	0	absolute



Fuzzy Search

- DGS-3130-30TS
- System
- Management
- L2 Features
- L3 Features
- QoS
- ACL
- Security
 - Port Security
 - Port Security Global Settings
 - Port Security Port Settings
 - Port Security Address Entries**
- 802.1X

Port Security Address Entries

Port Security Address Entries

Port: eth1/0/1 MAC Address: 00-84-57-00-00-00 Permanent VID (1-4094):

Add Delete Clear by Port Clear by MAC

Total Entries: 1 Clear All

Port	VID	MAC Address	Address Type	Remaining Time (mins)
eth1/0/1	1	60-63-4C-E0-CB-35	Permanent	-

1/1 < > 1 > > Go

Port Security (CLI)

```
Switch#configure terminal
Switch(config)#interface ethernet 1/0/1
Switch(config-if)#switchport port-security
Switch(config-if)#switchport port-security maximum 1
Switch(config-if)#switchport port-security mode permanent
Switch(config-if)#switchport port-security violation shutdown
```

```
Switch#show port-security interface ethernet 1/0/1
```

```
D:Delete-on-Timeout P:Permanent
Interface      Max  Curr  Violation      Violation      Security Admin  Current
No.            No.  No.   Act.           Count          Mode  State  State
-----
eth1/0/1      1    1    Shutdown -          -              P   Enabled Forwarding
```

IMPB (IP-MAC-Port Binding)

- ❑ Parejas IP – MAC
- ❑ Dinámico usando

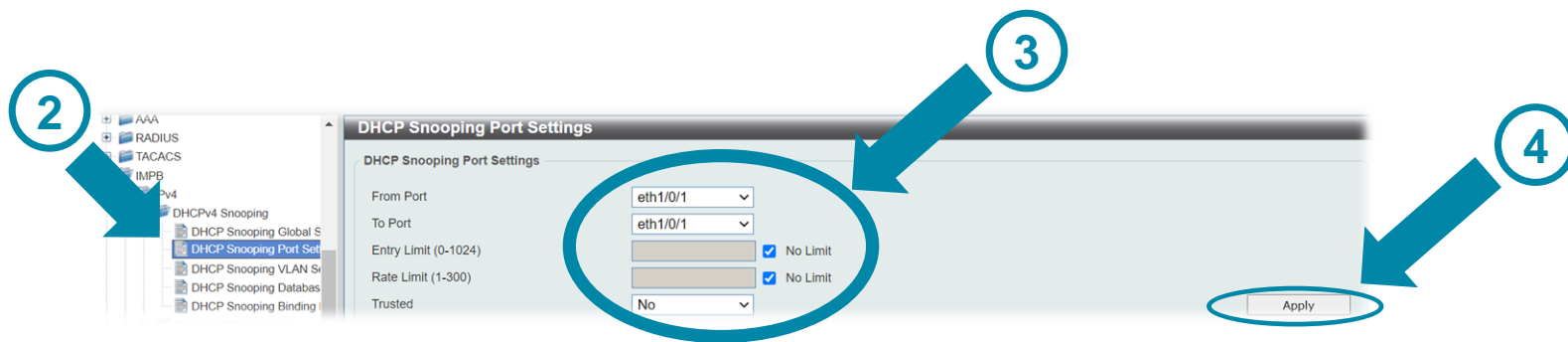
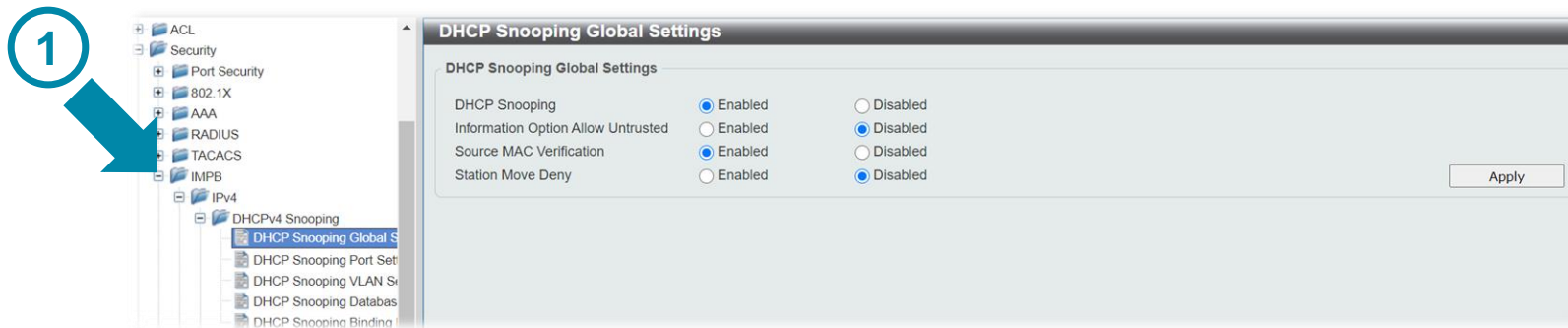
DHCP Snooping

- ❑ Dynamic ARP Inspection

IP Source Guard



DHCP Snooping (WEB UI)



Dynamic ARP Inspection (WEB UI)

1

ARP Inspection Settings

ARP Inspection Validation

Src-MAC Enabled Disabled
 Dst-MAC Enabled Disabled
 IP Enabled Disabled

Apply

ARP Inspection VLAN Logging

Total Entries: 1

2

ARP Inspection Port Settings

From Port To Port

Rate Limit (1-150) pps Burst Interval (1-15) None

Trust State

Apply Set to Default

IP Source Guard (WEB UI)

1

- ACL
- Security
 - Port Security
 - 802.1X
 - AAA
 - RADIUS
 - TACACS
 - IMPB
 - IPv4
 - DHCPv4 Snooping
 - Dynamic ARP Inspection
 - IP Source Guard
 - IP Source Guard Port Set
 - IP Source Guard Binding
 - IP Source Guard HW Ent

IP Source Guard Port Settings

From Port: eth1/0/1 To Port: eth1/0/1

State: Enabled Validation: IP-MAC

Apply

Port	Validation Type
eth1/0/4	IP-MAC

4

- RADIUS
- TACACS
- IMPB
- IPv4
 - DHCPv4 Snooping
 - Dynamic ARP Inspection
 - IP Source Guard
 - IP Source Guard Port Set
 - IP Source Guard Binding
 - IP Source Guard HW Ent
- Advanced Settings

IP Source Guard HW Entry

From Port: eth1/0/1 To Port: eth1/0/1 Find

Total Entries: 1

Port	Filter-type	Filter-mode	IP Address	MAC Address	VLAN
eth1/0/4	ip-mac	active	deny-all	-	1

1/1 |< < 1 > >| Go

IP-MAC-Port Binding (CLI)

```
Switch(config)#ip dhcp snooping  
Switch(config)#interface ethernet 1/0/9  
  
Switch(config-if)#ip dhcp snooping trust
```

```
Switch(config)#ip arp inspection validate src-mac  
Switch(config)#interface ethernet 1/0/7  
  
Switch(config-if)#ip arp inspection trust
```

```
Switch(config)#interface ethernet 1/0/5  
  
Switch(config-if)#ip verify source vlan dhcp-snooping
```

Gateway & DHCP Server

❑ Fijar su **GATEWAY**:

ARP Spoofing Prevention

❑ Servidor **DHCP** confiable:

DHCP Server Screening



DHCP Server Screening (WEB UI)

1

2

3

DHCP Server Screening Port Settings

DHCP Server Screening Port Settings

From Port: eth1/0/1 | To Port: eth1/0/30 | State: Enabled | Server IP: . . . | Profile Name: 32 chars | Apply

Port	State	Server IP	Profile Name
eth1/0/1	Enable	-	-
eth1/0/2	Enable	-	-
eth1/0/3	Enable	-	-

4

5

DHCP Server Screening Port Settings

DHCP Server Screening Port Settings

From Port: eth1/0/1 | To Port: eth1/0/1 | State: Enabled | Server IP: 192.168.0.1 | Profile Name: 32 chars | Apply

Port	State	Server IP	Profile Name
eth1/0/1	Enable	192.168.0.1	-
eth1/0/2	Enable	-	-
eth1/0/3	Enable	-	-

ARP Spoofing Prevention (CLI)

```
Switch(config)#ip arp spoofing-prevention 192.168.0.1 00-11-22-33-44-AA interface ethernet 1/0/1-30
```

```
Switch#show ip arp spoofing-prevention
```

IP	MAC	Interfaces
192.168.0.1	00:11:22:33:44:AA	eth1/0/1-1/0/30

```
Total Entries: 1
```

DHCP Server Screening (CLI)

```
Switch#configure terminal
```

```
Switch(config)#interface range ethernet 1/0/1-30
```

```
Switch(config-if-range)#ip dhcp snooping server-screen
```

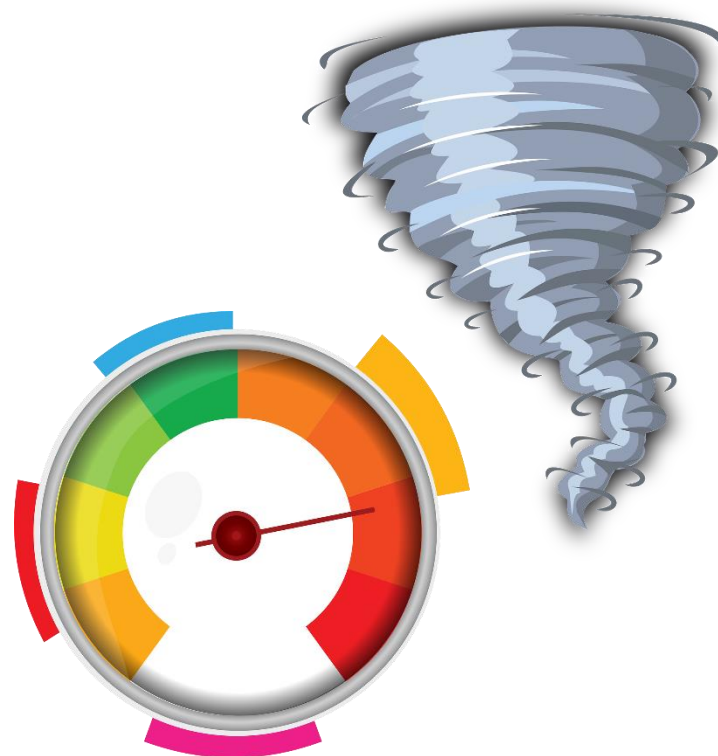
```
Switch(config)#interface ethernet 1/0/1
```

```
Switch(config-if)#ip dhcp snooping server-screen 192.168.0.1
```

Tormentas de Broadcast

- Storm Control
- Safeguard Engine
- Evitar bucles:

STP, Loopback detection, ...



Storm Control (WEB UI)

The screenshot shows the Storm Control Settings page in the D-Link web interface. On the left is a navigation tree with 'Storm Control' selected. The main panel is divided into three sections: Storm Control Trap Settings, Storm Control Polling Settings, and Storm Control Port Settings.

Callout 1: Points to the 'Storm Control' menu item in the left navigation tree.

Callout 2: Points to the 'Storm Control Port Settings' table.

Callout 3: Points to the 'Apply' button at the bottom right of the 'Storm Control Port Settings' section.

From Port	To Port	Type	Action	Level Type	Level Rise (1-100)	Level Low (1-100)
eth1/0/1	eth1/0/30	Broadcast	Drop	Level	70	%

Total Entries: 90

Safeguard Engine (WEB UI)

The screenshot displays the web management interface for the Safeguard Engine. On the left, a navigation tree shows the 'Safeguard Engine' menu item selected, with 'Safeguard Engine Settings' highlighted. A blue arrow labeled '1' points to this menu item. The main content area is titled 'Safeguard Engine Settings' and is divided into two sections. The 'Safeguard Engine Settings' section contains three rows: 'Safeguard Engine State' with a dropdown menu set to 'Enabled', 'Trap State' with a dropdown menu set to 'Enabled', and 'Safeguard Engine Current Status' showing 'Normal'. A large blue circle labeled '2' encompasses these three rows, with an arrow pointing to the 'Enabled' dropdowns. The 'CPU Utilization Settings' section contains two rows: 'Rising Threshold (20~ 100)' with a text input field containing '75' and a '%' symbol, and 'Falling Threshold (20~ 100)' with a text input field containing '20' and a '%' symbol. At the bottom right of the settings area, there is an 'Apply' button, which is circled in blue with a blue arrow labeled '3' pointing to it.

Storm Control (CLI)

```
Switch#configure terminal

Switch(config)#interface range ethernet 1/0/1-30

Switch(config-if-range)#storm-control ?

action                Specify the action to be taken when a storm is
                     detected
broadcast             Broadcast storm suppression.
multicast             Multicast storm suppression.
unicast               Unknown unicast storm suppression.

Switch(config-if-range)#storm-control action ?

drop                  Drop exceed the storm packet
none                  Not filter the storm packets
shutdown              Error-disable the port during a storm

Switch(config-if-range)#storm-control action drop

Switch(config-if-range)#storm-control broadcast level 70
```

Safeguard Engine (CLI)

```
Switch#configure terminal  
Switch(config)#cpu-protect safeguard  
Switch(config)#cpu-protect safeguard threshold 80 20
```

```
Switch#show cpu-protect safeguard  
  
Safeguard Engine State: Enabled  
Safeguard Engine Status: Normal  
Utilization Thresholds:  
Rising      :80%  
Falling     :20%
```

D-Link Business Products



Switching

- ✓ Switches desde el Core al Extremo de red. Redes LAN Gigabit y 10 Gigabit, Sin gestión, Smart, Gestionables L2/L4, Stackables, Power Over Ethernet (PoE) VLAN para VoIP y Videovigilancia.



IP Surveillance

- ✓ Soluciones de Videovigilancia IP completas, ONVIF, 5 Mpx, IP67, Antivandálicas IK10, de interior y de exterior, PoE, NVR's y con soporte Cloud mylink para entornos domésticos

Accesorios



Wireless Centralizado

- ✓ Soluciones centralizadas Nuclias Connect hasta 1.000 Puntos de Acceso y soluciones Nuclias Cloud con escalabilidad ilimitada y Zero Touch Provisioning con gestión de AP's y Switches Cloud.
- ✓ Soluciones centralizadas basadas en Controladora Wireless



Industrial

- ✓ Soluciones de Switching y Routing Industrial y M2M para entornos de Industria 4.0 y Smart Cities.



Routers VPN

- ✓ Unified Service Routers Wireless, VPN, Firewall, failover, load balancing y posibilidad de 4G*



- ✓ Transceivers, Media Converters, PoE Injectors, Direct Attach stacking Cables, etc...



D-Link Consumer Products



Switching

Switches sin gestión para crear tu red o ampliar puertos de tu router.



Wireless Repeaters y Powerline

Amplía la cobertura WiFi de manera sencilla y práctica con Repetidores o soluciones Powerline a través de la red eléctrica.



WiFi Mesh

Amplía la cobertura de red y optimiza la señal para máximo rendimiento de manera automática.



Adaptadores WiFi

Actualiza tus dispositivos a la última tecnología Wireless con nuestros dongles USB WiFi.



Routers

Routers AC Wave2 y WiFi 6 con compatibilidad para IPTV y máximo rendimiento



Mobility 4G/5G

Dongles, Routers y MiFi's 4G (Cat4 y Cat6) y 5G de última generación.



Cámaras y Domótica mydlink

Cámaras de Videovigilancia Cloud de interior y Exterior, Autónomas, PTZ y 180°. Sensores de Agua, Smart Plugs y Regletas Inteligentes



USB y USB-C

Hubs y Docking Stations USB-C multipuerto

Programa de Canal VIP+

D-Link Value in Partnership+

Programa de Canal VIP+

Registro gratuito para resellers en:
<https://vipplus.dlink.com>

- Portal Online responsivo con materiales exclusivos: lista de precios, eBooks técnicos, etc
- Rebates por volumen
- Promociones exclusivas
- Herramientas online de Planificación Proyectos
- Soporte comercial y técnico dedicado
- Programa de Compra Productos Demo hasta -50%
- D-Link Academy: Certificaciones oficiales online y presenciales



Product Selector Pro
Sencilla herramienta que le permite seleccionar y comparar nuestros productos para que nuestros partners puedan ofrecer la solución más avanzada.



Wi-Fi Planner Pro
Herramienta para diseño avanzado de entornos Wireless, para presentación profesional de planos de cobertura WiFi, estudios y proyectos.



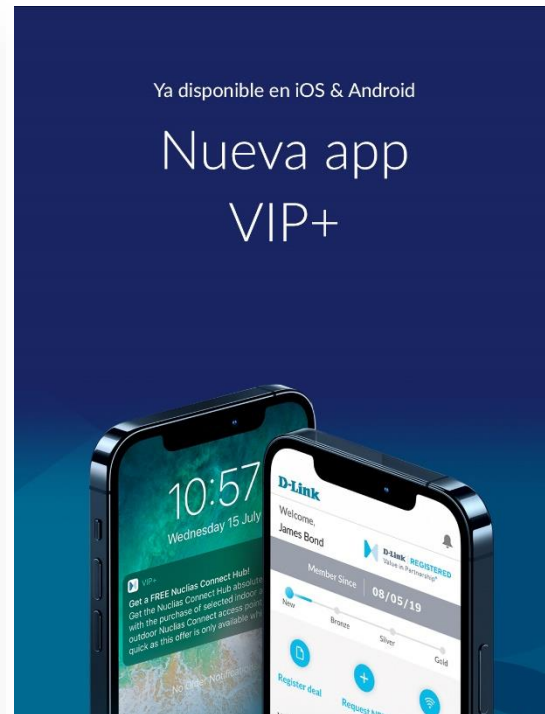
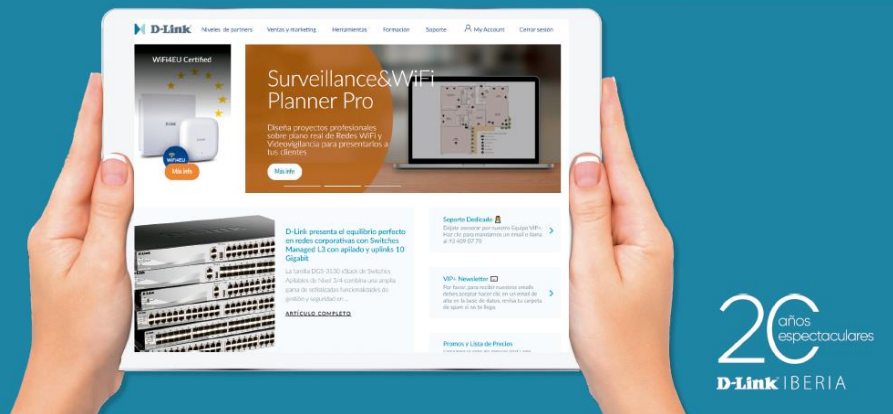
Surveillance Floor Planner Pro
Herramienta para diseñar instalaciones de videovigilancia CCTV, con selector de cámaras, colocación y cobertura para presentar planos profesionales.



Bandwidth Calculator
Calculadora de ancho de banda para gestionar la tasa de transferencia necesaria para optimizar el tráfico de red de Cámaras IP, videograbadores NVR, etc.




GUI Emulator Pro
Herramienta interactiva que te guía por las interfaces gráficas de usuario (WEB GUI) de cada uno de nuestras soluciones.



Ya disponible en iOS & Android


Nueva app VIP+

D-Link te lo pone fácil: VIP+ Tools



Get started with
Product Selector *PRO*

A web-based tool to select and compare D-Link business products in a few clicks



Switch Switch Firewall Camera VMP Access Point Antenna Unified Controller & Switch Storage Network Security



Product Selector PRO



Wi-Fi Planner PRO

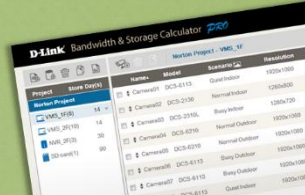
Get started with
Wi-Fi Planner *PRO*

A web-based RF simulation tool to simplify your WLAN deployment



Get Started with
Bandwidth & Storage Calculator *PRO*

An online tool to estimate the bandwidth and storage capacity requirements for IP Surveillance installation



Project	Name	Model	Resolution	Capacity
Project 1	Camera01	DCS-6113	Standard	1020x1080
Project 2	Camera02	DCS-6113	Standard	1280x1024
Project 3	Camera03	DCS-2136L	Super HD	1280x720
Project 4	Camera04	DCS-6113	Normal	1020x1080
Project 5	Camera05	DCS-6113	Normal	1020x1080
Project 6	Camera06	DCS-6113	Super HD	1280x1080
Project 7	Camera07	DCS-6113	Super HD	1280x1080



Bandwidth & Storage Calculator PRO



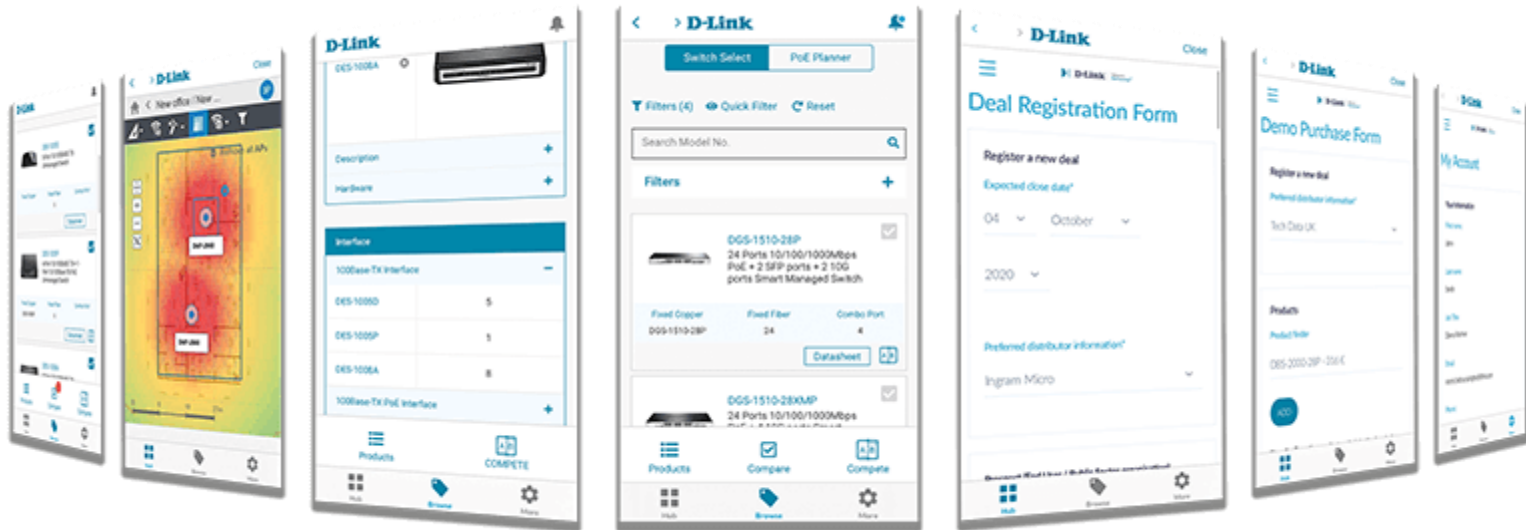
GUI Emulator PRO

Get Started with GUI Emulator *PRO*

A tool to navigate web UI of D-Link products without the need to set up actual devices



D-Link te lo pone fácil: app VIP+





**¡Muchas Gracias!
Muito Obrigado!**

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ACADEMY