



**D-Link**<sup>®</sup>  
ACADEMY

> WEBINARS

# ACL

(Access-List)



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D-Link Iberia



**D-Link**<sup>®</sup>  
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# Agenda

- ❑ Utilidad de las **ACL**
- ❑ Tipos de **ACL**  
y Configuración
- ❑ **Hands-on**



# Utilidades de las ACLs

✓ Limitar el **tráfico**

✓ **Reducir** tráfico

✓ **Control de flujo**  
de tráfico

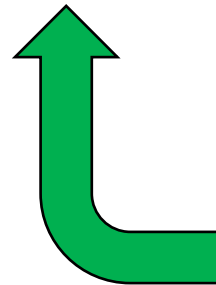
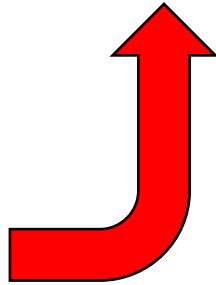
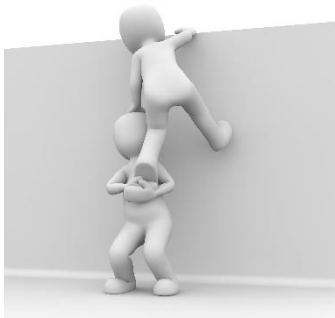
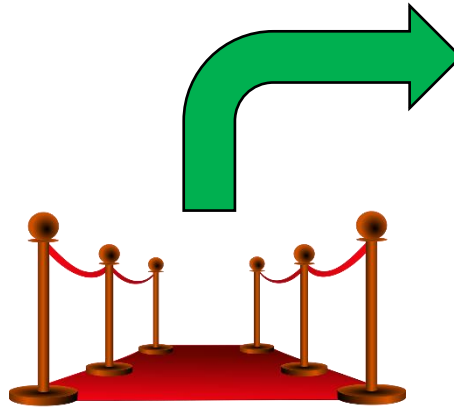


✓ **Filtrar** el tráfico

✓ **Seguridad básica**

✓ Permitir sólo a los  
**hosts** concretos

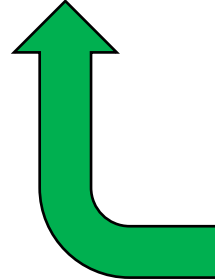
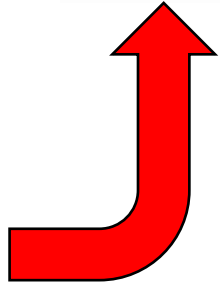
# Discriminar Usuarios



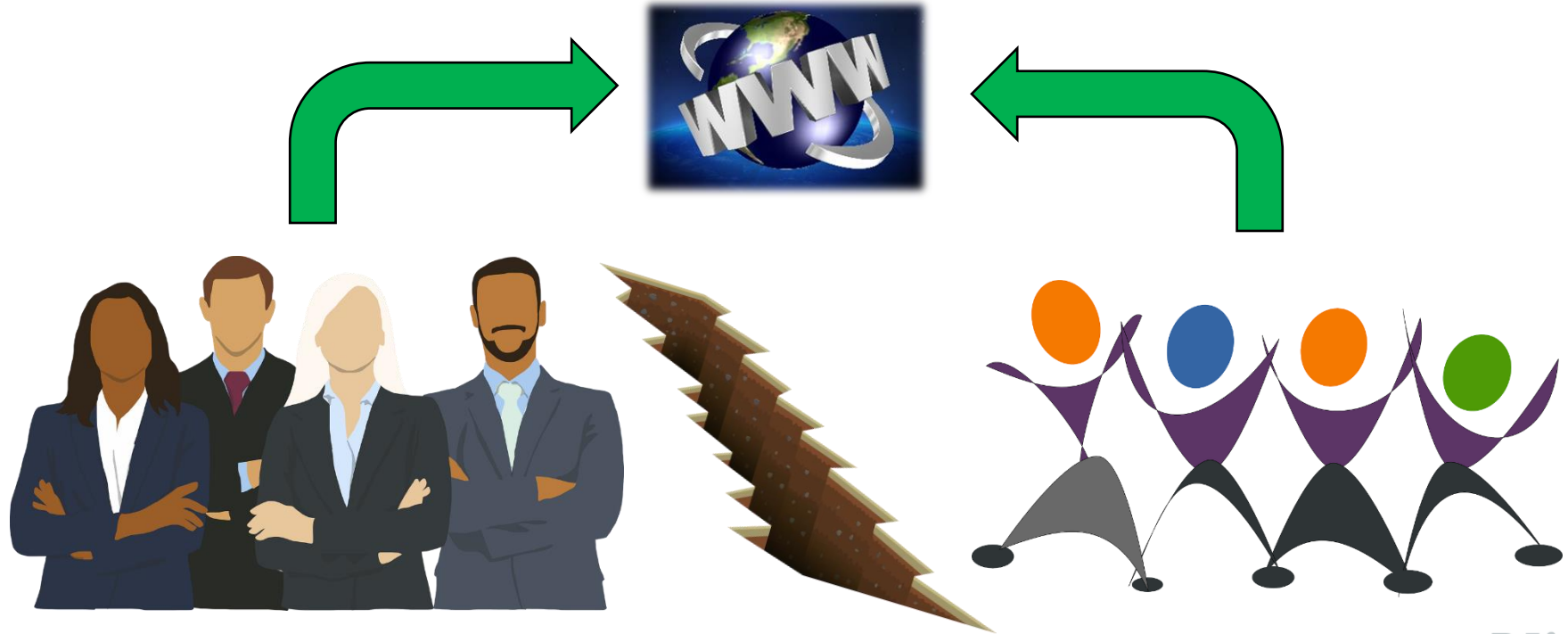
# Acceso a los Dispositivos



DGS-1520-28



# Red Privada vs Red de Invitados



# ACL (Access-list)

- Permitir / Denegar **Tráfico**
- Elegir **Origen y Destino**
- A nivel de **IPs** o de **Puertos**





# Paso a Paso

- ❑ Definimos el tipo de **ACL**
- ❑ Creamos las **RULES**
- ❑ Importante el **orden**
- ❑ Última regla implícita: **PERMIT**





# Buscando el Match

- Se revisan en **ORDEN**
- Cuando hace match...  
se ejecuta la **instrucción**
- No se leen ni aplican  
las **posteriores**



# Tipos de ACL

TIPO	ID
STANDARD	1 – 1999
EXTENDED	2000 – 3999
EXTENDED MAC	6000 – 7999
EXTENDED EXPERT	8000 – 9999
STANDARD IPv6	11000 – 12999
EXTENDED IPv6	13000 – 14999

# Tipos de ACL

```
DGS-1510#show access-list
```

Access-List-Name	Type
ACL_10 (ID: 10)	ip acl
ACL_2000 (ID: 2000)	ip ext-acl
ACL_6000 (ID: 6000)	mac ext-acl
ACL_8000 (ID: 8000)	expert ext-acl
ACL_11000 (ID: 11000)	ipv6 acl
ACL_13000 (ID: 13000)	ipv6 ext-acl

```
Total Entries: 6
```

# ACL Standard

## ❑ STANDARD: Origen y Destino

### Add ACL Rule

**Add ACL Rule**

ID: 10  
ACL Name: ACL\_10  
ACL Type: Standard IP ACL

Sequence No. (1-65535):  (If it isn't specified, the system automatically assigns.)

Action:  Permit  Deny

Match IP Address

Source	<input checked="" type="radio"/> Any		<input checked="" type="radio"/> Any	
	<input type="radio"/> Host	<input type="text" value="."/> <input type="text" value="."/> <input type="text" value="."/>	<input type="radio"/> Host	<input type="text" value="."/> <input type="text" value="."/> <input type="text" value="."/>
	<input type="radio"/> IP	<input type="text" value="."/> <input type="text" value="."/> <input type="text" value="."/>	<input type="radio"/> IP	<input type="text" value="."/> <input type="text" value="."/> <input type="text" value="."/>
	Wildcard	<input type="text" value="."/> <input type="text" value="."/> <input type="text" value="."/>	Wildcard	<input type="text" value="."/> <input type="text" value="."/> <input type="text" value="."/>

Time Range:

# ACL Extended

## ❑ EXTENDED: Origen, Destino y Puerto

**Add ACL Rule**

**Add ACL Rule**

ID: 2000  
ACL Name: ACL\_2000  
ACL Type: Extended IP ACL

Sequence No. (1-65535):  (If it isn't specified, the system automatically assigns.)

Action:  Permit  Deny

Protocol Type:  (0-255)  Fragments

**Match IP Address**

Source:  Any  Host  IP  Wildcard

Destination:  Any  Host  IP  Wildcard

**Match Port**

Source Port:   (0-65535)   (0-65535)

Destination Port:   (0-65535)   (0-65535)

**TCP Flag**  ack  fin  psh  rst  syn  urg

IP Precedence  DSCP (0-63)

ToS:

Time Range:

# Y además ...

- Access-class**
  - Restringir el acceso
  - Telnet, SSH, HTTP
- VLAN Access-map**
  - Aplicar ACLs a  
diferentes VLANs



# ACL Standard (Web UI)

Fuzzy Search

- DGS-1510-20
  - System
  - Management
  - L2 Features
  - L3 Features
  - QoS
  - ACL
    - ACL Configuration Wizard
    - ACL Access List**
    - ACL Interface Access Group
    - ACL VLAN Access Map
    - ACL VLAN Filter

### ACL Access List

ACL Access List

ACL Type:   ID (1-14999)   ACL Name

Total Entries: 0

ID	ACL Name	ACL Type	Start Sequence No.	Step	Counter State	Remark
----	----------	----------	--------------------	------	---------------	--------

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

### Add ACL Access List

Add ACL Access List

ACL Type:

ID (1-1999):

ACL Name:

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



# ACL Standard (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	Counter State	Remark	
1	TEST1	Standard IP ACL	10	10	Disabled		<input type="button" value="Edit"/> <input type="button" value="Delete"/>

1/1 < < 1 > >

TEST1 (ID: 1) Rule

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

### Add ACL Rule

Add ACL Rule

ID: 1  
ACL Name: TEST1  
ACL Type: Standard IP ACL  
Sequence No. (1-65535):  (if it isn't specified, the system automatically assigns.)  
Action:  Permit  Deny

Match IP Address

Source:  Any  Host  IP  Wildcard

Destination:  Any  Host  IP  Wildcard

Time Range:

# ACL Standard (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	Counter State	Remark	
1	TEST1	Standard IP ACL	10	10	Disabled		<input type="button" value="Edit"/> <input type="button" value="Delete"/>

1/1 < < 1 > >

**TEST1 (ID: 1) Rule**

Sequence No.	Action	Rule	Time Range	Counter	
10	Deny	host 10.90.90.4 host 10.9...			<input type="button" value="Delete"/>

1/1 < < 1 > >

Fuzzy Search

- DGS-1510-20
  - System
  - Management
  - L2 Features
  - L3 Features
  - QoS
  - ACL
    - ACL Configuration Wizard
    - ACL Access List
    - ACL Interface Access Group**
    - ACL VLAN Access Map
    - ACL VLAN Filter

**ACL Interface Access Group**

ACL Interface Access Group

From Port:  To Port:  Direction:  Action:  Type:  ACL Name:

Port	In			
	IP ACL	IPv6 ACL	MAC ACL	Expert ACL
eth1/0/1				
eth1/0/2				
eth1/0/3	TEST1 (ID: 1)			

# Trusted host (Web UI)

The screenshot displays the 'Trusted Host' configuration page in the D-Link Web UI. On the left, a navigation tree shows 'Security' > 'Trusted Host' selected. The main configuration area includes:

- ACL Name:** A text input field containing 'ACL\_TRUST'.
- Type:** A dropdown menu set to 'Telnet'.
- Apply:** A button to save the configuration.
- Note:** A red warning message: "The first character of ACL name must be a letter."
- Total Entries: 1**

Type	ACL Name	
Telnet	ACL_TRUST	Delete

# ACL Extended (Web UI)

Fuzzy Search

- DGS-1510-20
  - System
  - Management
  - L2 Features
  - L3 Features
  - QoS
  - ACL
    - ACL Configuration Wizard
    - ACL Access List**
    - ACL Interface Access Group
    - ACL VLAN Access Map
    - ACL VLAN Filter

### ACL Access List

ACL Access List

ACL Type:   ID (1-14999)   ACL Name

Total Entries: 0

ID	ACL Name	ACL Type	Start Sequence No.	Step	Counter State	Remark
<input type="button" value="Clear All Counter"/> <input type="button" value="Clear Counter"/> <input type="button" value="Add Rule"/>						
Sequence No.	Action	Rule	Time Range	Counter		

### Add ACL Access List

Add ACL Access List

ACL Type:

ID (2000-3999):

ACL Name:

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

# ACL Extended (Web UI)

**Add ACL Rule**

**Add ACL Rule**

ID: 2001  
ACL Name: TEST2001  
ACL Type: Extended IP ACL

Sequence No. (1-65535): 10 (If it isn't specified, the system automatically assigns.)

Action:  Permit  Deny

Protocol Type: ICMP (0-255)  Fragments

**Match IP Address**

Source:  Any  Host: 192.168.5.3  IP: . . . Wildcard: . . .

Destination:  Any  Host: 192.168.5.1  IP: . . . Wildcard: . . .

**Match ICMP**

Specify ICMP Message Type: echo

ICMP Message Type (0-255): 8 Message Code (0-255): 0

IP Precedence: Please Select ToS: Please Select

DSCP (0-63): Please Select

Time Range: 32 chars

Back Apply

# VLAN access-map (Web UI)

Fuzzy Search

- DGS-1510-20
  - System
  - Management
  - L2 Features
  - L3 Features
  - QoS
  - ACL
    - ACL Configuration Wizard
    - ACL Access List
    - ACL Interface Access Group
    - ACL VLAN Access Map**
    - ACL VLAN Filter
  - Security
  - OAM
  - Monitoring
  - Green

### ACL VLAN Access Map

ACL VLAN Access Map

Access Map Name: AM\_VLAN5  
Sub Map Number (1-65535): 5  
Action: Drop

Access Map Name: 32 chars Counter State: Disabled

Access Map Name: 32 chars

Total Entries: 1

Access Map Name	Sub Map Number	Action	Match Access-List	Counter State	Binding	Delete
AM_VLAN5	5	Drop		Disabled	<input type="button" value="Binding"/>	<input type="button" value="Delete"/>

### Match Access-List

Match Access-List

Access Map Name: AM\_VLAN5  
Sub Map Number: 5

Match IP Access-List

ACL\_VLAN5

Match IPv6 Access-List

# VLAN access-map (Web UI)

Fuzzy Search

- DGS-1510-20
  - System
  - Management
  - L2 Features
  - L3 Features
  - QoS
  - ACL
    - ACL Configuration Wizard
    - ACL Access List
    - ACL Interface Access Group
    - ACL VLAN Access Map
    - ACL VLAN Filter**

## ACL VLAN Filter

ACL VLAN Filter

Access Map Name: AM\_VLAN5

Action: Add

VID List: 10  All VLANs

**Apply**

Total Entries: 1

Access Map Name	VID List	Delete
AM_VLAN5	10	Delete

1/1 < < 1 > > Go

Fuzzy Search

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  - System
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  - L2 Features
  - L3 Features
  - QoS
  - ACL
    - ACL Configuration Wizard
    - ACL Access List
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    - ACL VLAN Access Map**
    - ACL VLAN Filter
  - Security
    - OAM
    - Monitoring
    - Green

## ACL VLAN Access Map

ACL VLAN Access Map

Access Map Name: 32 chars

Sub Map Number (1-65535):

Action: Forward **Apply**

Access Map Name: 32 chars      Counter State: Disabled **Apply**

Access Map Name: 32 chars      Clear All Counter    Clear Counter    Find

Total Entries: 1

Access Map Name	Sub Map Number	Action	Match Access-List	Counter State	Binding	Delete
AM_VLAN5	5	Drop	IP: ACL_VLAN5 (ID: 5)	Disabled	Binding	Delete

1/1 < < 1 > > Go



# ACL Standard (CLI)

```
DGS-1510#configure terminal
DGS-1510(config)#ip access-list TEST1 1
DGS-1510(config-ip-acl)#deny host 10.90.90.4 host 10.90.90.90
DGS-1510(config-ip-acl)#exit
DGS-1510(config)#interface ethernet 1/0/5
DGS-1510(config-if)#ip access-group TEST1
```

```
DGS-1510#show access-list
```

Access-List-Name	Type
TEST1(ID: 1)	ip acl

```
Total Entries: 1
```

```
DGS-1510#show access-list ip TEST1
```

```
Standard IP access list TEST1(ID: 1)
  10 deny host 10.90.90.4 host 10.90.90.90
```

# Access-class (CLI)

```
DGS-1510#configure terminal
DGS-1510(config)#ip access-list TEST2 2
DGS-1510(config-ip-acl)#permit host 192.168.5.1
DGS-1510(config-ip-acl)#exit
DGS-1510(config)#line telnet
DGS-1510(config-line)#access-class TEST2
```

```
DGS-1510#configure terminal
DGS-1510(config)#line ssh
DGS-1510(config-line)#access-class TEST2
```

```
DGS-1510#configure terminal
DGS-1510(config)#ip http access-class TEST2
```

# ACL Extended (CLI)

```
DGS-1510#configure terminal
DGS-1510(config)#ip access-list extended TEST2001 2001
DGS-1510(config-ip-ext-acl)#deny icmp host 192.168.5.3 host 192.168.5.1 echo
DGS-1510(config-ip-ext-acl)#permit tcp host 192.168.5.3 host 192.168.5.1 eq 80
DGS-1510(config-ip-ext-acl)#permit udp host 192.168.5.3 host 192.168.5.1 eq 138
DGS-1510(config-ip-ext-acl)#exit
DGS-1510(config)#interface ethernet 1/0/4
DGS-1510(config-if)#ip access-group TEST2001
```

```
DGS-1510#configure terminal
DGS-1510(config)#ip access-list extended TEST2002 2002
DGS-1510(config-ip-ext-acl)#deny 192.168.5.0 0.0.0.255 192.168.10.0 0.0.0.255
DGS-1510(config-ip-ext-acl)#exit
DGS-1510(config)#ip access-list extended TEST2003 2003
DGS-1510(config-ip-ext-acl)#deny 192.168.10.0 0.0.0.255 192.168.5.0 0.0.0.255
DGS-1510(config-ip-ext-acl)#exit
DGS-1510(config)#interface ethernet 1/0/2
DGS-1510(config-if)#ip access-group TEST2002

PROMPT: The remaining applicable IP related access entries are 892, remaining range entries are 32.
DGS-1510(config-if)#interface ethernet 1/0/3
DGS-1510(config-if)#ip access-group TEST2003

PROMPT: The remaining applicable IP related access entries are 891, remaining range entries are 32.
```

# VLAN access-map (CLI)

```
DGS-1510#configure terminal
DGS-1510(config)#ip access-list ACL_VLAN5
DGS-1510(config-ip-acl)#permit any 192.168.5.0 0.0.0.255
DGS-1510(config-ip-acl)#ip access-list ACL_VLAN10
DGS-1510(config-ip-acl)#permit any 192.168.10.0 0.0.0.255
DGS-1510(config-ip-acl)#exit
DGS-1510(config)#vlan access-map AM_VLAN5
DGS-1510(config-access-map)#match ip address ACL_VLAN5
DGS-1510(config-access-map)#action drop
DGS-1510(config-access-map)#exit
DGS-1510(config)#vlan access-map AM_VLAN10
DGS-1510(config-access-map)#match ip address ACL_VLAN10
DGS-1510(config-access-map)#action drop
DGS-1510(config-access-map)#exit
DGS-1510(config)#vlan filter AM_VLAN5 vlan-list 10
DGS-1510(config)#vlan filter AM_VLAN10 vlan-list 5
```

# 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 te 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



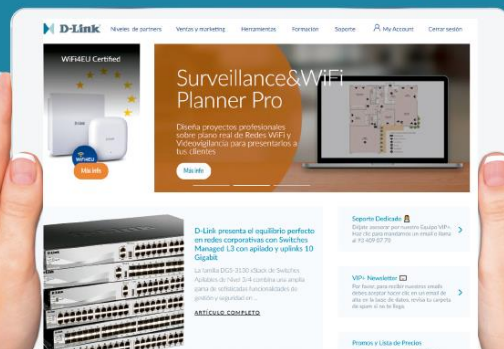
**Surveillance Floor Planner Pro**  
Herramienta para diseñar instalaciones de videovigilancia CCTV, con selector de cámaras, colocación y cobertura para presentar planos profesionales



**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



20 años  
espectaculares  
D-Link IBERIA


Ya disponible en iOS & Android

## Nueva app VIP+



D-Link  
WEBINARS

# 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

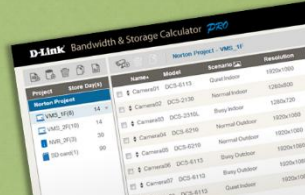
Get started with  
Wi-Fi Planner *PRO*

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	Device	Model	Resolution	Capacity	FR
IP Surveillance	Camera01	DCS-6113	Normal Indoor	1024x768	32
IP Surveillance	Camera02	DCS-6113	Normal Indoor	1280x800	32
IP Surveillance	Camera03	DCS-6113	Normal Outdoor	1280x720	32
IP Surveillance	Camera04	DCS-6113	Normal Outdoor	1024x768	32
IP Surveillance	Camera05	DCS-6113	Normal Outdoor	1024x768	32
IP Surveillance	Camera06	DCS-6113	Normal Outdoor	1024x768	32
IP Surveillance	Camera07	DCS-6113	Normal Outdoor	1024x768	32
IP Surveillance	Camera08	DCS-6113	Normal Outdoor	1024x768	32
IP Surveillance	Camera09	DCS-6113	Normal Outdoor	1024x768	32
IP Surveillance	Camera10	DCS-6113	Normal Outdoor	1024x768	32



Bandwidth & Storage Calculator PRO



GUI Emulator PRO

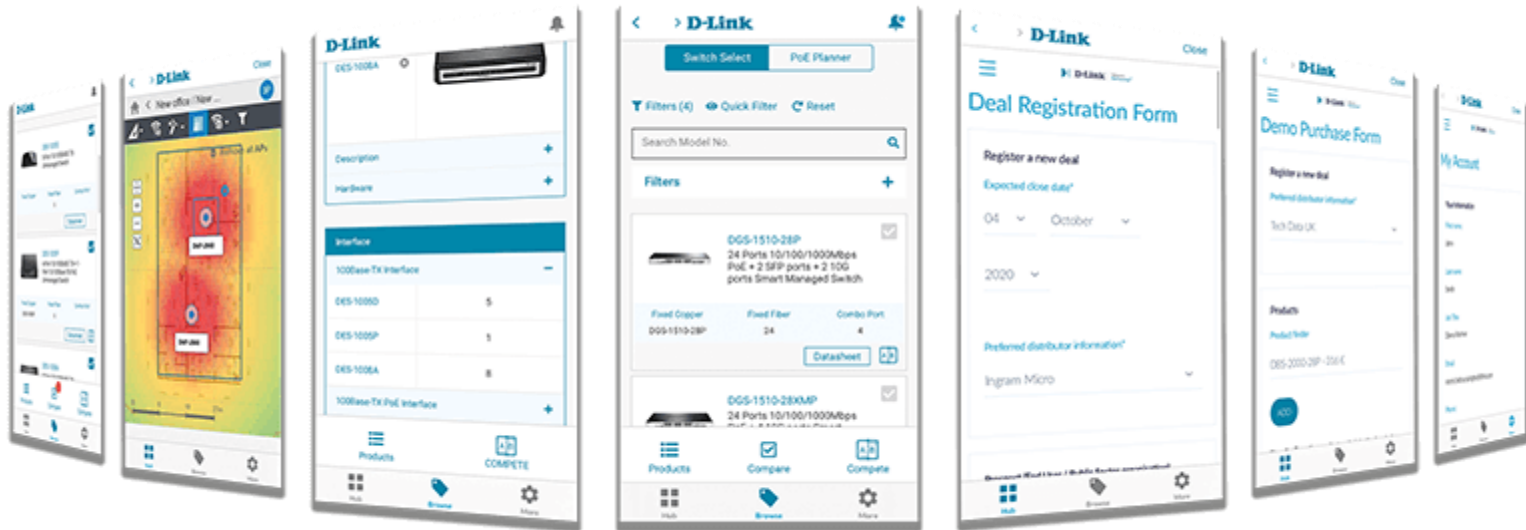
Get Started with GUI Emulator *PRO*

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+





## D-Link Webinars

Formación Online Gratuita



# ¡Os esperamos!

## Switching 10Gb, novedades y gama completa

VIERNES 5 MARZO. 10:30AM

### Lanzamiento

Presentador: Oriol Roca, Corporate Sales Account D-Link Iberia

- La gama más extensa, versatilidad desde el core al extremo de red
- DXS-3610, nueva gama Multiterabit y asequible para Core/CPD/Data Center
- Escenarios de aplicación

¡Regístrate ya! >





**¡Muchas Gracias!  
Muito Obrigado!**

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