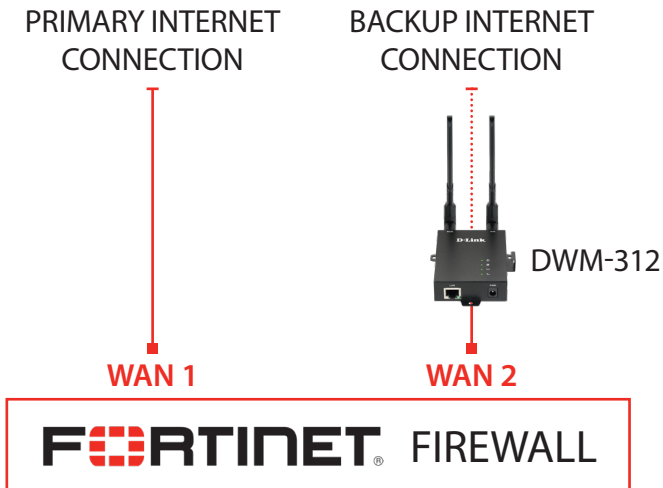


How to Setup the DWM-312 and Fortinet Firewall for Connection Failover

CONNECTION DIAGRAM



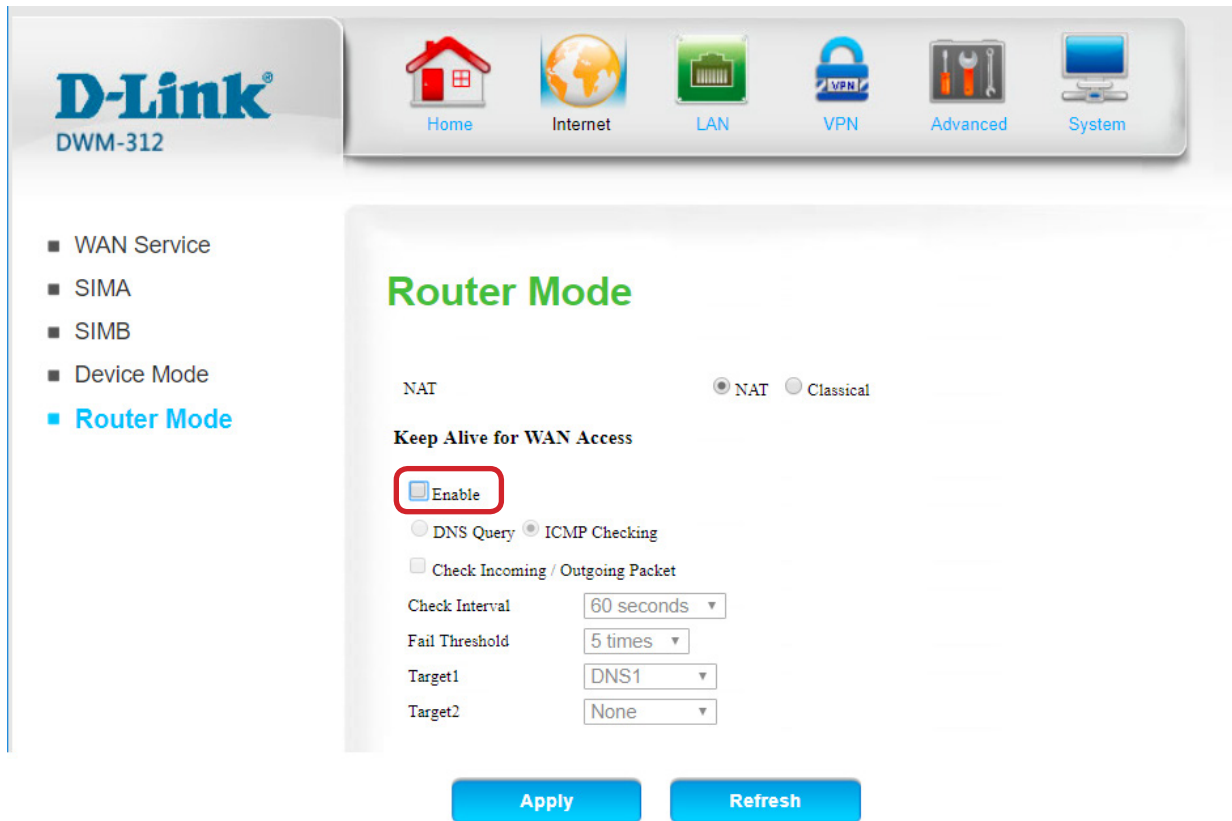
STEP 1. To set the DWM-312 4G LTE Modem in Bridge Mode, connect it to your computer and log into it via <http://192.168.0.1>.

Select "Internet" from the top menu. Then select SIMA > APN Settings.

Set "Dial-Up Profile" to Manual. Choose your Country and your Telco. Click on "Apply".

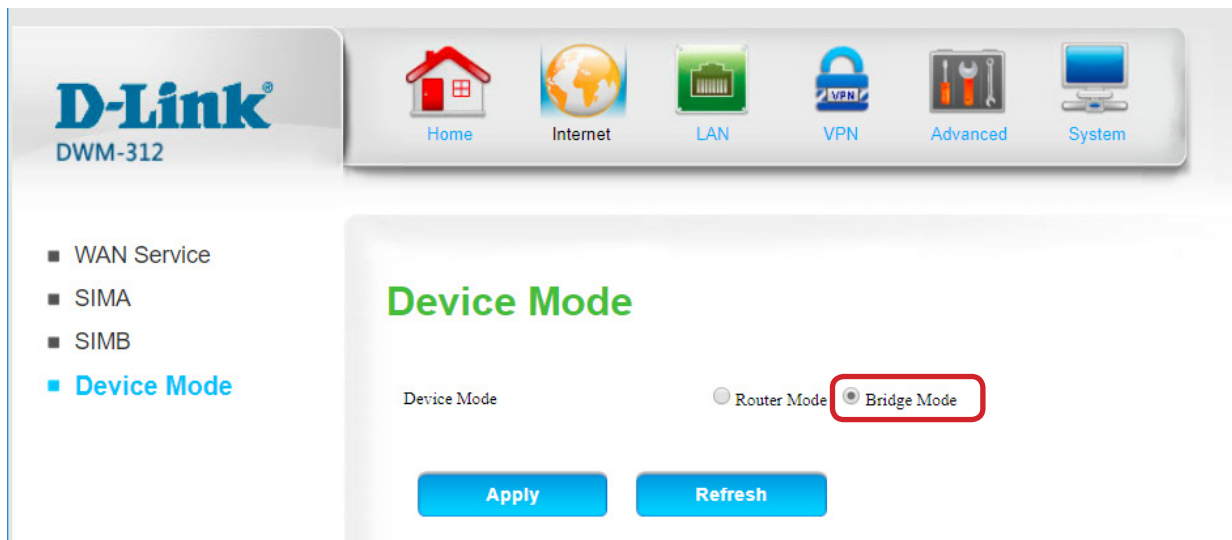
The screenshot shows the D-Link DWM-312 web interface. The top navigation bar includes Home, Internet, LAN, VPN, Advanced, and System. The left sidebar shows a menu with options like WAN Service, SIMA, SIMB, and Device Mode. The main content area is titled 'SIMA' and shows 'APN Settings'. The 'Dial-Up Profile' is set to 'Manual'. The 'Country' is set to 'Australia' and the 'Telecom' is set to 'Telstra'. Other fields include Username, Password, Dialed Number (*99#), Authentication (Auto), APN (telstra.internet), PIN Code, Primary DNS Server, and Secondary DNS Server. There are 'Apply' and 'Refresh' buttons at the bottom.

Select "Router Mode" > Disable the "Keep Alive for WAN Access" option > Click on "Apply".



The screenshot shows the D-Link DWM-312 web interface. The top navigation bar includes Home, Internet, LAN, VPN, Advanced, and System. The left sidebar lists WAN Service, SIMA, SIMB, Device Mode, and Router Mode (highlighted). The main content area is titled "Router Mode" and shows the "Keep Alive for WAN Access" section. The "Enable" checkbox is checked and highlighted with a red box. Below it are options for "DNS Query" and "ICMP Checking", and a "Check Incoming / Outgoing Packet" checkbox. There are also dropdown menus for "Check Interval" (60 seconds), "Fail Threshold" (5 times), "Target1" (DNS1), and "Target2" (None). At the bottom are "Apply" and "Refresh" buttons.

Select "Device Mode" > Select "Bridge Mode" > Click on "Apply".



The screenshot shows the D-Link DWM-312 web interface. The top navigation bar includes Home, Internet, LAN, VPN, Advanced, and System. The left sidebar lists WAN Service, SIMA, SIMB, Device Mode (highlighted), and Router Mode. The main content area is titled "Device Mode" and shows the "Device Mode" section. The "Bridge Mode" radio button is selected and highlighted with a red box. Below it are "Apply" and "Refresh" buttons.

The Setup is complete for DWM-312 in Bridge Mode.
See next page to setup Fortinet Firewall for failover.

STEP 2. Setting up Fortinet Firewall for failover from Primary Connection to Backup Connection.

a. Go to Network > Interfaces and **Configure WAN1** with your Primary Internet Connection settings.

Status	Name	Members	IP/Netmask	Type	Access
Physical (3)					
dmz			10.10.10.1 255.255.255.0	Physical Interface	PING HTTPS HTTP FMG-Access CAPWAP
wan1 (Primary)			192.168.20.233 255.255.255.0	Physical Interface	PING FMG-Access
wan2 (Backup LTE)			10.100.108.130 255.255.255.252	Physical Interface	PING FMG-Access

b. Configure WAN2 as your backup LTE connection, set it as DHCP.

Edit Interface

Interface Name: wan2

Alias: Backup LTE

Link Status: Up

Type: Physical Interface

Role: WAN

Estimated Bandwidth: 0 Kbps Upstream, 0 Kbps Downstream

Address

Addressing mode: Manual **DHCP** PPPoE

Status: connected

Obtained IP/Netmask: 10.100.108.130 255.255.255.252 Renew

Expiry Date: January 11, 1970 10:09 AM

Acquired DNS: 10.4.58.204 10.5.136.242

Default Gateway: 10.100.108.129

Retrieve default gateway from server:

Distance: 5

Override internal DNS:

c. Go to **Policy & Objects > IPv4 Policy** and, if not already present, create a firewall policy to allow traffic from your LAN to your primary connection (WAN1). Add similar policy for your backup connection (WAN2).

lan - Backup LTE (wan2) (1 - 1)							
1	Backup	all	all	always	ALL	ACCEPT	Enabled
lan - Primary (wan1) (2 - 2)							
2	Primary	all	all	always	ALL	ACCEPT	Enabled

Edit Policy

Name: Backup

Incoming Interface: lan

Outgoing Interface: Backup LTE (wan2)

Source: all

Destination Address: all

Schedule: always

Service: ALL

Action: ACCEPT DENY LEARN

Firewall / Network Options

NAT:

STEP 2. d. Go to **Network > Static Routes** and create a static route for each of the Internet Connections*. The primary connection should have a higher route priority (lower "Priority Number") than the secondary connection.

New Static Route

Destination ⓘ **Subnet** | Named Address | Internet Service
 0.0.0.0/0.0.0.0

Device Primary (wan1) ▼

Gateway 192.168.20.254

Administrative Distance ⓘ 10

Comments 0/255

Status **Enabled** Disabled

Advanced Options

Priority ⓘ 5

OK Cancel

New Static Route

Destination ⓘ **Subnet** | Named Address | Internet Service
 0.0.0.0/0.0.0.0

Device Backup LTE (wan2) ▼

Gateway 10.100.108.129

Administrative Distance ⓘ 10

Comments 0/255

Status **Enabled** Disabled

Advanced Options

Priority ⓘ 10

OK Cancel

Static Routes

+ Create New | Edit | Clone | Delete

Destination	Gateway	Interface
0.0.0.0/0	192.168.20.254	wan1
0.0.0.0/0	10.100.108.129	wan2

Routing Monitor

Refresh | Route Lookup

Type	Subtype	Network	Gateway	Interface
Static		0.0.0.0/0	192.168.20.254	wan1 (Primary)
Static		0.0.0.0/0	10.100.108.129	wan2 (Backup LTE)
Connected		10.100.108.128/30	0.0.0.0	wan2 (Backup LTE)
Connected		192.168.0.0/24	0.0.0.0	wan2 (Backup LTE)
Connected		192.168.1.0/24	0.0.0.0	lan
Connected		192.168.20.0/24	0.0.0.0	wan1 (Primary)

« < 1 /1 > » [Total: 6]

STEP 2. e. Go to **Dashboard > CLI** and use command line to configure link monitors for both connections:

```
config system link-monitor
edit wan1
    (wan1) #get
        set name wan1
        set server 8.8.8.8
        set protocol ping
        set gateway-ip 192.168.20.254
        set interval 5
        set timeout 1
        set failtime 5
        set recoverytime 5
        set update-cascade-interface enable
        set update-static-route enable
        set status enable
    end
```

```
config system link-monitor
edit wan2
    (wan1) #get
        set name wan1
        set server 4.2.2.2
        set protocol ping
        set gateway-ip 10.100.108.129
        set interval 5
        set timeout 1
        set failtime 5
        set recoverytime 5
        set update-cascade-interface enable
        set update-static-route enable
        set status enable
    end
```

Your setup is now complete.

* If your connection is using Dynamic IP addresses please refer to FortiOS documentation on how to set static routes for dynamic gateways.