

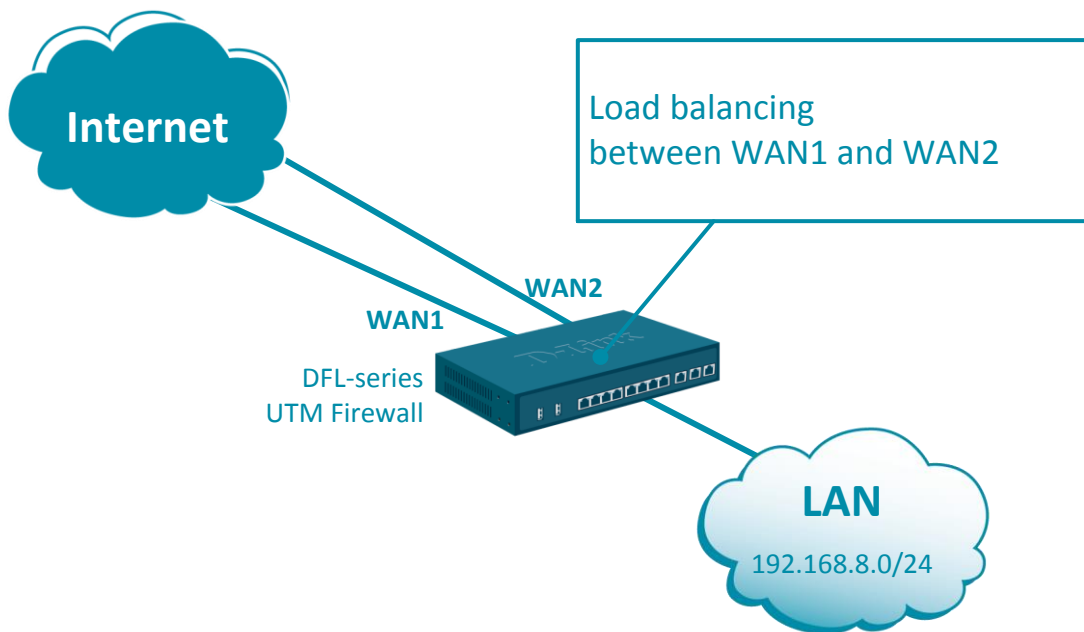
NETDEFEND

Configuration examples for the D-Link NetDefend Firewall series



Setting up two Internet connections with load balancing

This configuration example is based on the following setup:



Step 1. Log into the firewall. The default access to LAN is via <https://192.168.10.1>. Default username is “admin” and password is “admin”.

Step 2. Set your WAN 1 and WAN2 settings as per Internet provider requirements. In our example WAN 1 is set as DHCP client and WAN 2 with static IP address.

▼ General

- Address Book
- Services
- ALG
- Key Ring

▼ Address Pool

- IP Pools
- NAT Pools

▼ VPN Objects

- LDAP
- IKE Config Mode Pool
- IKE ID Lists
- IKE Algorithms

InterfaceAddresses

An address folder can be used to group related address objects for better overview.

+ Add Edit this object Filter

#	Name	Address	User Auth Groups	Comments
1	wan1_ip	0.0.0.0		IPAddress of interface ...
2	wan1net	0.0.0.0/0		mark on interfac...
3	wan1_gw	0.0.0.0		Default gateway for int...
4	wan2_ip	192.168.120.254		IPAddress of interface ...
5	wan2net	192.168.120.0/24		mark on interfac...
6	wan2_gw	192.168.120.1		

WAN1: DHCP

WAN2: Static IP

Step 3. Go to Network > Ethernet > and set WAN1 and WAN2 with required IP settings.

Click on Advanced tab. Disable the “Add route...” and “Add default route...” options for WAN1 and WAN2 (otherwise you won’t be able to modify the routing settings).

The screenshot shows the 'Network' configuration page with the 'Ethernet' tab selected. A table lists the configured interfaces:

#	Name	IPv4 Address	IPv6 Address	Network	Default Gateway	Enable DHCP
1	wan1	wan1_ip		wan1net	wan1_gw	Yes
2	wan2	wan2_ip		wan2net		No

The screenshot shows the configuration page for the 'wan1' interface. The 'Advanced' tab is selected. Under the 'Automatic Route Creation' section, two checkboxes are present:

- Automatically add a route for this interface using the given network.
- Automatically add a default route for this interface using the given default gateway.

The 'Route metric' is set to 100.

The screenshot shows the configuration page for the 'wan2' interface. The 'Advanced' tab is selected. Under the 'Automatic Route Creation' section, two checkboxes are present:

- Automatically add a route for this interface using the given network.
- Automatically add a default route for this interface using the given default gateway.

The 'Route metric' is set to 100. A note below the metric field states: "Specifies the metric for the auto-created route."

Step 4. Go to Routing > Routing Tables > Main.

Add two routes for all outgoing traffic (all-nets) to go through WAN1 and WAN2.

Make sure you set the same Metric for both routes

General
Proxy ARP
Monitor

Interface:

Network:

Gateway:

Local IP address:

Metric:

General
Proxy ARP
Monitor

Interface:

Network:

Gateway:

Local IP address:

Metric:

#	Type	Interface	Network	Gateway	L...	Metric
3	Route IPv4	wan2	all-nets	wan2_gw		80
4	Route IPv4	wan1	all-nets	wan1_gw		80

Step 5. Go to Routing > Route Load Balancing > Instances.

Create a new Route Balancing instance. Select “main” as Routing Table. Select “Round Robin” or another as Algorithm.

The screenshot shows the 'Route Balancing Instance' configuration page. The left sidebar contains a navigation menu with 'Route Load Balancing' > 'Instances' selected. The main content area has a title 'Route Balancing Instance' and a description: 'A route balancing instance is associated with a routingtable and defines how to make use of multiple routes to the same destination.' Below this, there are two dropdown menus: 'Routing Table' set to 'main' and 'Algorithm' set to 'Round Robin'. A red box highlights these two settings. To the right of the 'Algorithm' dropdown, there is a text label: 'Specify which algorithm to use when balancing the routes.'

The route balancing mechanism will be looking for two matching routes in the routing table “main” and will balance traffic between them:

#	Type	Interface	Network	Gateway	L...	Metric
3	Route IPv4	wan2	all-nets	wan2_gw		80
4	Route IPv4	wan1	all-nets	wan1_gw		80

Step 6. After the configuration is done, click “Configuration” in main bar and select “Save and Activate”. Then click OK to confirm. Wait for 15 sec. You will be automatically redirected to the firewall’s LAN IP address.

NOTE: If you do not re-login into the firewall within 30 sec, the configuration is reverted to its previous state. The validation timeout can be adjusted under System > Remote Management > Advanced Settings.

