



# 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 <u>https://192.168.10.1</u>. 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.

<ul> <li>▼ General</li> <li>Address Book</li> <li>Services</li> <li>ALG</li> <li>Key Ring</li> </ul>	InterfaceAddresses         An address folder can be used to group related address objects for better overview.         + Add       ✓ Edit this object    Filter							
▼ Address Pool	# 🍝	Name	Address	User Auth Groups C		Commer	Comments	
IP Pools	1	🙀 wan1_ip	0.0.0.0			IPAddres	s of interface	
NAT Pools	2	🥁 wan1net	0.0.0.0/0		WAN1: DH	ICP	rk on interfac	
▼ VPN Objects	3	wap1_gw	0.0.0.0			Default o	ateway for int	
LDAP		₩4 wan1_gw	0.0.0.0	<u> </u>		Deruditig	atomay for inter-	
IKE Config Mode Pool	4	4 wan2_ip	192.168.120.254			<b>IPAddres</b>	s of interface	
IKE ID Lists	5	4 wan2net	192.168.120.0/24	$\mathbf{F}$	WAN2: Sta	atic IP	rk on interfac	
IKE Algorithms	6	4 wan2_gw	192.168.120.1				_	



### **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).

	Status	System	Objects	Network	Polic	ies	
l l	Interfaces an	d VPN Rout	ng Netw	ork Services			
▼ Link Layer Ethernet VLAN PPPoE	Ethern Configure ti	et ne settings for the E	thernet adapter	s in the system	n. Filter		
ARP/Neighbor Discovery  VPN and Tunnels	# 🔺 Nam	e IPv4 Addr	e IPv6 Addre	Network	Default Gat	Enable DH	
IPsec SSL PPTP/I 2TP Servers	1 w	an1 🙀 wan1_i an2 🦕 wan2_i	)	₩an1net	🙀 wan1_gw	Yes No	
General Hard Automatic Route Crea Automatically add com	Iware Setting	gista chaponit in	Routing	Advance	d		
Automatically add	a i An Etherr	net interface rep	resents a log	ical endpoir	nt for Ethern	iet traffic.	
Route metric: 100	Gen	eral Hard	vare Setting	s Virtu	ual Routing	Adva	nced
Automatic Route Creation Automatically add commonly used routes related to this interface							
	Auto	omatically add a omatically add a netric: 100	route for this default route	s interface u e for this inte <del>Specifie</del> s	sing the giv erface using <del>s the metric</del>	en network. the given de for the auto	efault gateway.



### **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	General	Proxy ARP	Mon
Interface:	wan1	-	Interface:	wan2	*
Network:	4 all-nets	-	Network:	4 all-nets	-
Gateway:	🔄 wan1_gw	-	Gateway:	4 wan2_gw	-
Local IP address:	(None)	-	Local IP address:	(None)	-
Metric:	80	±	Metric:	80	±

# 🍝	Туре	Interface	Network	Gateway	L	Metric
3	🖓 Route IPv4	🚟 wan2	4 all-nets	4 wan2_gw		80
4		🚎 wan1	4 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.

	Status	System	Objects	Network	Policies
	Interfaces and \	/PN Ro	outing N	etwork Services	
▼ Static Routes					
Routing Tables	Route B	alancing	g Instand	e	
Policy-based Routing Rules	A route baland	cing instance is	s assoicated wi	ith a routingtable and	I defines how to make
Route Load Balancing	uso or multiple		Sumo dostinuti	1	
Instances	Routing Tabl	le: 🔩 main	-		
Algorithm Settings	Algorithm:	Round Robin		Specify which algorith balancing the routes.	nm to use when
Dynamic Routing					

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

# 🍝		Туре	Interface	Network	Gateway	L	Metric
ſ	3	€ Route IPv4	📷 wan2	4 all-nets	4 wan2_gw		80
	4	🖓 Route IPv4	🔤 wan1	4 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.

		Setup Wizard 🚺 🍄 Configuration 🚺	Notifications 0 2 admin
Status	System	The configuration has been changed.	
Run-time Information M		Save and Activate	
		View Changes	
Save Co	nfigurat	Discard changes	
Save and active	ate changes n		
Save and Activa	ate		
Are you sure y	ou want to save	the configuration?	
An administrat revert to its pre	tor needs to log i evious configura	n within 30 seconds to verify the new configuration. Otherwise the unit will assume tion.	that you accidentally locked yourself out, and
Note: Due to c configuration.	onfiguration cha You will need to	nges the currently active user admin (192.168.10.151) will no longer be automatica manually login with an administrator user account to verify the new configuration.	lly logged on after the activation of the new
			OK Cancel

