



# Configuration examples for the D-Link NetDefend Firewall series

## DFL-210/800/1600/2500

### Scenario: How to configure SAT (Port Forwarding) for DMZ server

Last update: 2008-01-17

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#### Overview

In this document, the notation *Objects->Address book* means that in the tree on the left side of the screen **Objects** first should be clicked (expanded) and then **Address Book**.

Most of the examples in this document are adapted for the DFL-800. The same settings can easily be used for all other models in the series. The only difference is the names of the interfaces. Since the DFL-1600 and DFL-2500 has more than one lan interface, the lan interfaces are named lan1, lan2 and lan3 not just lan.

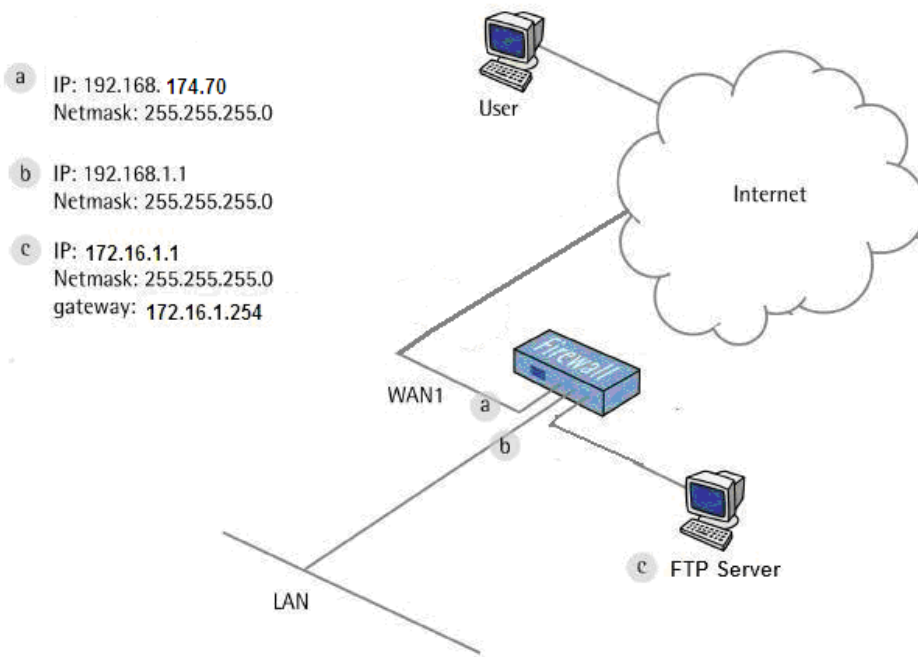
The screenshots in this document is from firmware version 2.11.02. If you are using an earlier version of the firmware, the screenshots may not be identical to what you see on your browser.

To prevent existing settings to interfere with the settings in these guides, reset the firewall to factory defaults before starting.

## How to configure SAT (Port Forwarding) for DMZ server

In this example, we will create a SAT policy that will translate and allow connections from the Internet to a FTP server located in a DMZ

### Example1: Wan 1 is used static ip



## 1. Addresses

Go to *Objects* -> *Address book* -> *InterfaceAddresses*.

Edit the following items:

Change Wan\_ip to 192.168.174.70

Change Wannet to 192.168.174.0/24

Change DMZ\_IP to 172.17.16.254

Change DMZnet to 172.17.16.0/24

Change lan\_ip to 192.168.1.1

Change lannet to 192.168.1.0/24



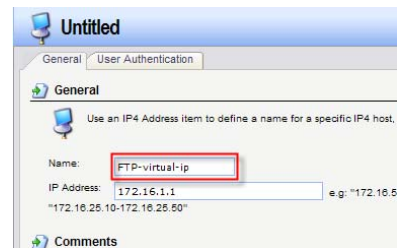
## 2. Add the objects of both public and virtual IP addresses for FTP server

Go to *Objects* -> *Address book* -> *InterfaceAddresses*

Add a new IP Address

Name: FTP-virtual-ip

IP Address: 172.16.1.1



Click Ok

Add a new IP Address

Name: FTP-public-ip

IP Address: 192.168.174.71



Click Ok

## 3. Create the objects in ARP table

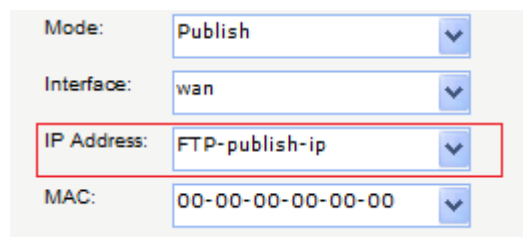
Go to *Objects* -> *Interfaces* -> *ARP*

Add a new ARP

Mode: Publish

Interface: wan

IP Address: FTP-public-ip



Click Ok

## 4. Create the IP rule to map FTP server (SAT)

In the General tab:

Go to *Rules -> IP Rules*.

Add a new IP Rules

Name: FTP-map

Action: SAT

Service: ftp-inbound

Name:	FTP-map
Action:	SAT
Service:	ftp-inbound
Schedule:	(None)

*Address Filter:*

Source Interface: any

Source Network: all-nets

Destination Interface: wan

Destination Network: FTP-public-ip

	Source	Destination
Interface:	any	wan
Network:	all-nets	FTP-public-ip

In the SAT tab:

Select Destination IP Address

New IP Address: FTP-virtual-ip

Click Ok.

Translate the

Source IP Address

Destination IP Address

To:

New IP Address: FTP-virtual-ip

New Port:  This value may only be applied on range without gaps

All-to-One Mapping: rewrite all destination IPs to a single IP

Add a new IP Rules

Name: allow-FTP

Action: NAT

Service: ftp-inbound

Name:	allow-FTP
Action:	NAT
Service:	ftp-inbound
Schedule:	(None)

*Address Filter:*

Source Interface: any

Source Network: all-nets

Destination Interface: wan

Destination Network: FTP-public-ip

	Source	Destination
Interface:	any	wan
Network:	all-nets	FTP-public-ip

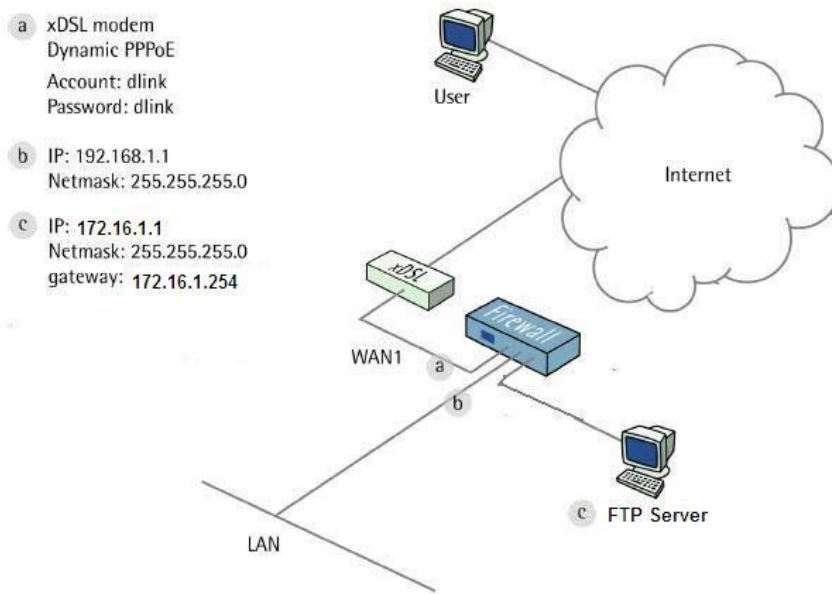
Click Ok.

Save and activate the configuration

## 2 How to configure SAT(Port Forwarding) for DMZ server

In this example, we will create a SAT policy that will translate and allow connections from the Internet to a FTP server located in a DMZ

### Example2: Wan 1 is used PPPoE



## 1. Addresses

Go to *Objects* -> *Address book* -> *InterfaceAddresses*.

Edit the following items:

Change lan\_ip to 192.168.1.1

Change lannet to 192.168.1.0/24



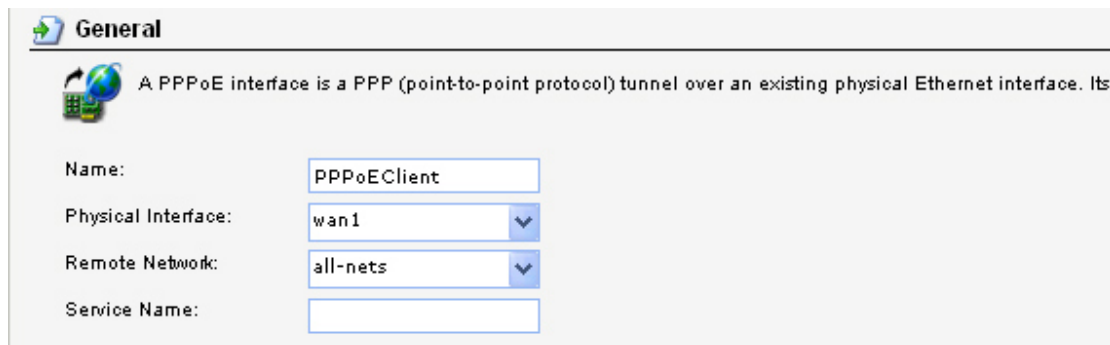
## 2. PPPoE client

Go to *Interfaces* -> *PPPoE Tunnels*.

Add a new PPPoE Tunnel.

In the General tab:

*General:*

A screenshot of the 'General' tab in a configuration interface. It features a title bar with a globe icon and the word 'General'. Below the title bar is a descriptive text: 'A PPPoE interface is a PPP (point-to-point protocol) tunnel over an existing physical Ethernet interface. Its'. Below this text are four configuration fields: 'Name:' with a text input containing 'PPPoEClient'; 'Physical Interface:' with a dropdown menu showing 'wan1'; 'Remote Network:' with a dropdown menu showing 'all-nets'; and 'Service Name:' with an empty text input field.

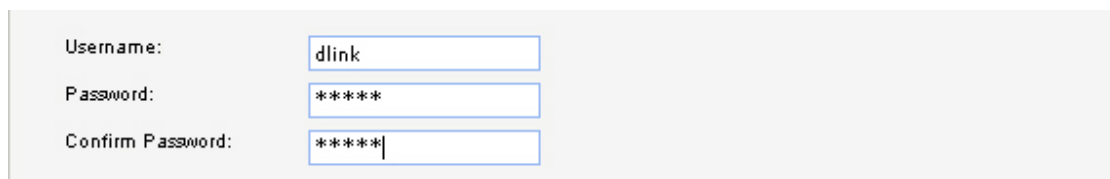
<b>General</b>	
A PPPoE interface is a PPP (point-to-point protocol) tunnel over an existing physical Ethernet interface. Its	
Name:	<input type="text" value="PPPoEClient"/>
Physical Interface:	<input type="text" value="wan1"/>
Remote Network:	<input type="text" value="all-nets"/>
Service Name:	<input type="text"/>

Name: PPPoEClient

Physical Interface: wan1

Remote Network: all-nets

*Authentication:*

A screenshot of the 'Authentication' tab in a configuration interface. It features three configuration fields: 'Username:' with a text input containing 'dlink'; 'Password:' with a text input containing '\*\*\*\*\*'; and 'Confirm Password:' with a text input containing '\*\*\*\*\*'.

Username:	<input type="text" value="dlink"/>
Password:	<input type="text" value="*****"/>
Confirm Password:	<input type="text" value="*****"/>

Username: dlink (For Example)

Password: dlink

Confirm Password: dlink

Click Ok.

## 2. Dynamic DNS

Go to System -> *Misc. Clients*.

Add a new DynDNSClientDynDNS.Org:

In the General tab:

DNSName:	<input type="text" value="dlinktest.dyndns.org"/>	eg: test.dyndns.org
Username:	<input type="text" value="dlink"/>	
Password:	<input type="password" value="*****"/>	
Confirm Password:	<input type="password" value="*****"/>	

DNSName: dlinktest.dyndns.org

Username: dlink

Password: dlink

**Confirm Password:** dlink

Click Ok.

## 3. Add the objects of both public and virtual IP addresses for FTP server

Go to *Objects* -> *Address book* -> *InterfaceAddresses*

Add a new IP Address

Name: FTP-virtual-ip

IP Address: 172.16.1.1

Click Ok



## 4. Create the IP rule to map FTP server (SAT)



In the General tab:

Go to *Rules -> IP Rules*.

Add a new IP Rules

Name: FTP-map

Action: SAT

Service: ftp-inbound

**Address Filter:**

Source Interface: any

Source Network: all-nets

Destination Interface: core

Destination Network: PPPoEClient\_ip

The screenshot shows the configuration for a new IP rule named 'FTP-map'. The 'Action' is set to 'SAT', 'Service' is 'ftp-inbound', and 'Schedule' is '(None)'. Below this is the 'Address Filter' section, which is currently empty. The 'Source' section has 'Interface' set to 'any' and 'Network' set to 'all-nets'. The 'Destination' section has 'Interface' set to 'core' and 'Network' set to 'PPPoEClient\_ip'. Red boxes highlight the 'Action' dropdown and the 'Destination' dropdowns.

In the SAT tab:

Select Destination IP Address

New IP Address: FTP-virtual-ip

Click Ok.

The screenshot shows the 'NAT' configuration window for the 'FTP-map' rule. The 'General' tab is active. Under 'Translate the', 'Destination IP Address' is selected. The 'To:' section has 'New IP Address' set to 'FTP-virtual-ip'. There is a warning icon next to the 'New Port' field with the text 'This value may only be applied on range without gaps'. The 'All-to-One Mapping' checkbox is unchecked. Red boxes highlight the 'New IP Address' dropdown and the warning icon.

Add a new IP Rules

Name: FTP-map

Action: NAT

Service: ftp-inbound

**Address Filter:**

Source Interface: any

Source Network: all-nets

Destination Interface: core

Destination Network: PPPoEClient\_ip

Click Ok.

Save and activate the configuration

The screenshot shows the configuration for a new IP rule named 'FTP-map'. The 'Action' is set to 'NAT', 'Service' is 'ftp-inbound', and 'Schedule' is '(None)'. Below this is the 'Address Filter' section, which is currently empty. The 'Source' section has 'Interface' set to 'any' and 'Network' set to 'all-nets'. The 'Destination' section has 'Interface' set to 'core' and 'Network' set to 'PPPoEClient\_ip'. Red boxes highlight the 'Action' dropdown and the 'Destination' dropdowns.