



Configuration examples for the D-Link NetDefend Firewall series

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

Platform Compatibility: All NetDefend Firewall Series

Last update: 2008-03-07

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.

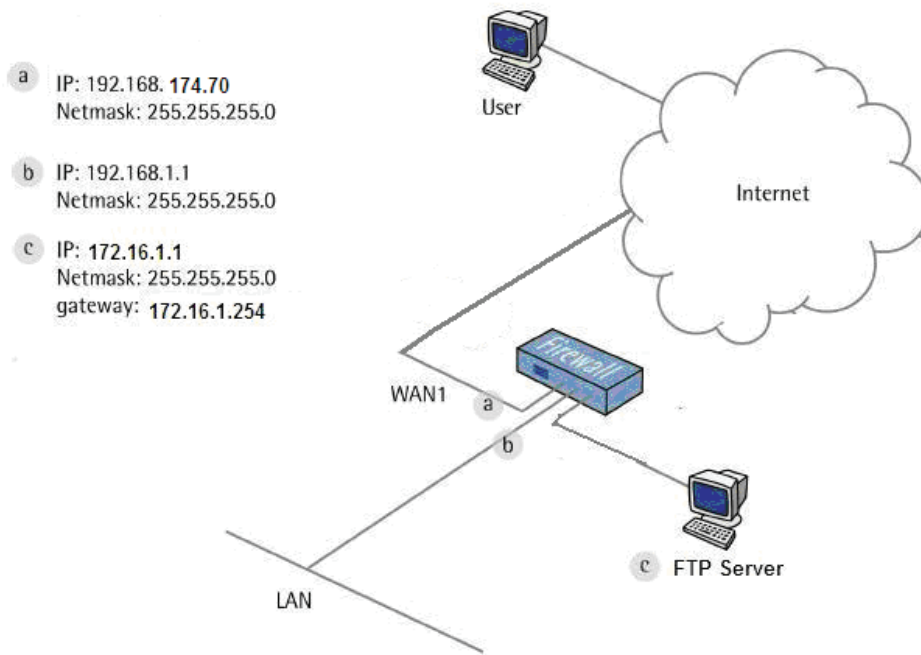
The screenshots in this document is from firmware version 2.11.02. If you are using an earlier version of the firmware, the screenshots may not be identical to what you see on your browser.

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

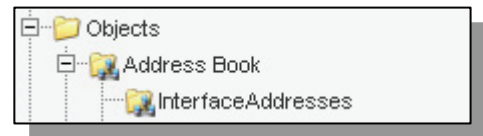
Change Wannet to 192.168.174.0/24

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



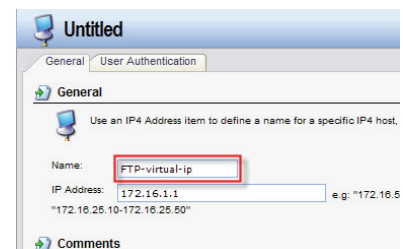
2. Add the objects of both public and virtual IP addresses for FTP server

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

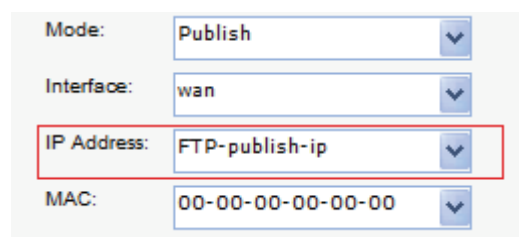
Go to *Objects* -> *Interfaces* -> *ARP*

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

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

Click Ok.

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

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



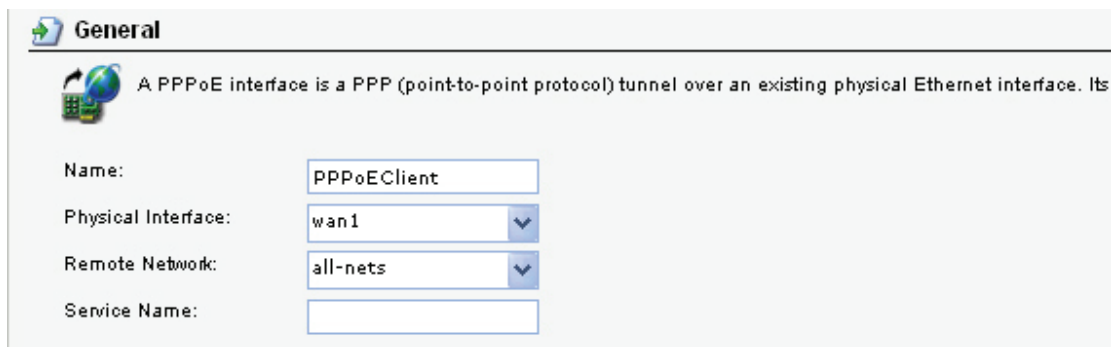
2. PPPoE client

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

Add a new PPPoE Tunnel.

In the **General** tab:

General:

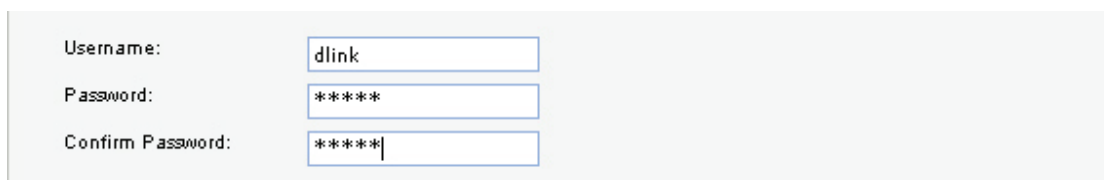
A screenshot of the 'General' tab in a configuration interface. It features a title bar with a globe icon and the word 'General'. Below the title bar is a description: 'A PPPoE interface is a PPP (point-to-point protocol) tunnel over an existing physical Ethernet interface. Its'. There are four input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

Name:
PPPo
EClie
nt
Physi
cal
Interf

ace: wan1

Remote Network: all-nets

Authentication:

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

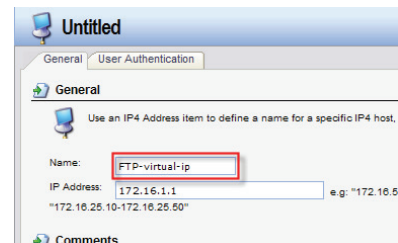
3. Add the objects of both public and virtual IP addresses for FTP server

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

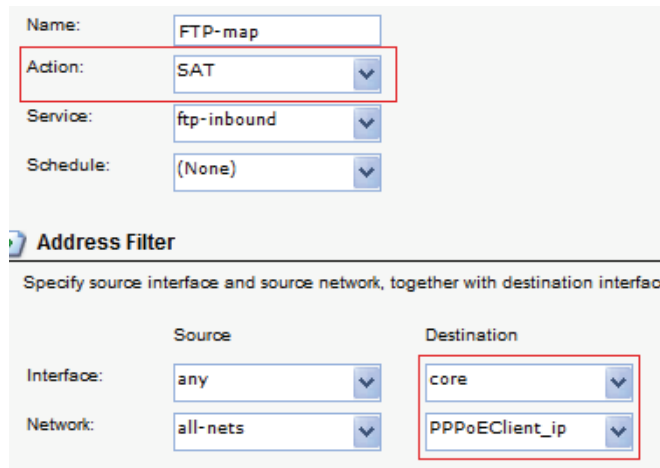
Address Filter:

Source Interface: any

Source Network: all-nets

Destination Interface: core

Destination Network: PPPoEClient_ip



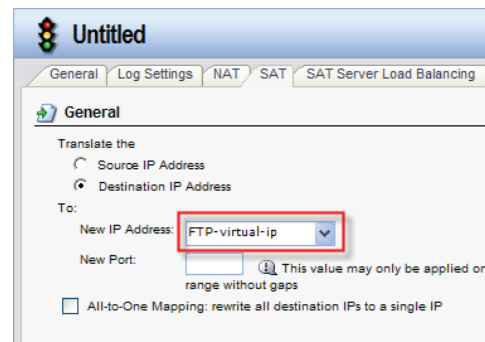
The screenshot shows the configuration for an IP rule named "FTP-map". The "Action" is set to "SAT", "Service" is "ftp-inbound", and "Schedule" is "(None)". Below this, the "Address Filter" section is visible, with "Source" interface set to "any" and "Network" set to "all-nets". The "Destination" interface is set to "core" and "Network" is set to "PPPoEClient_ip". Red boxes highlight the "Action" and "Destination" fields.

In the SAT tab:

Select Destination IP Address

New IP Address: FTP-virtual-ip

Click Ok.



The screenshot shows the "NAT" configuration tab for the "FTP-map" rule. Under the "General" section, "Translate the" is set to "Destination IP Address". The "To:" section has "New IP Address" set to "FTP-virtual-ip" and "New Port" is empty. A note indicates that the new port value may only be applied on a range without gaps. The "All-to-One Mapping" checkbox is unchecked. Red boxes highlight the "New IP Address" field.

Add a new IP Rules

Name: FTP-map

Action: NAT

Service: ftp-inbound

Address Filter:

Source Interface: any

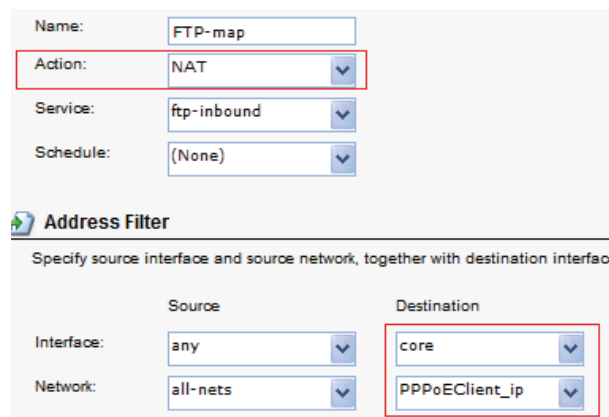
Source Network: all-nets

Destination Interface: core

Destination Network: PPPoEClient_ip

Click Ok.

Save and activate the configuration



The screenshot shows the configuration for an IP rule named "FTP-map". The "Action" is set to "NAT", "Service" is "ftp-inbound", and "Schedule" is "(None)". Below this, the "Address Filter" section is visible, with "Source" interface set to "any" and "Network" set to "all-nets". The "Destination" interface is set to "core" and "Network" is set to "PPPoEClient_ip". Red boxes highlight the "Action" and "Destination" fields.