Configuration Examples for the D-Link NetDefend Firewall Series

Scenario: How to configure DNS Relay

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 2.20.00. 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 DNS Relay

This example describes about firewalls support to relay DNS query packets from LAN to Internet for domain name resolving. All DFL firewalls (DFL-210/800/1600/2500) support this feature from firmware v2.04 and later.

Note: About this feature, it performs relay/forward DNS packets only since D-Link DFL firewalls don't built-in DNS server in system kernel. Therefore, it can not instead of real DNS server to provide domain name resolving and related functionality.

Details:
- LAN IP on firewall: 192.168.1.1 (with the function of DNS relay)
- Lannet on firewall: 192.168.1.0/24
- DNS Server on Internet: 12.0.0.1

1. Addresses

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

Create an IP Address called dns_server with address 12.0.0.1

Click Ok.

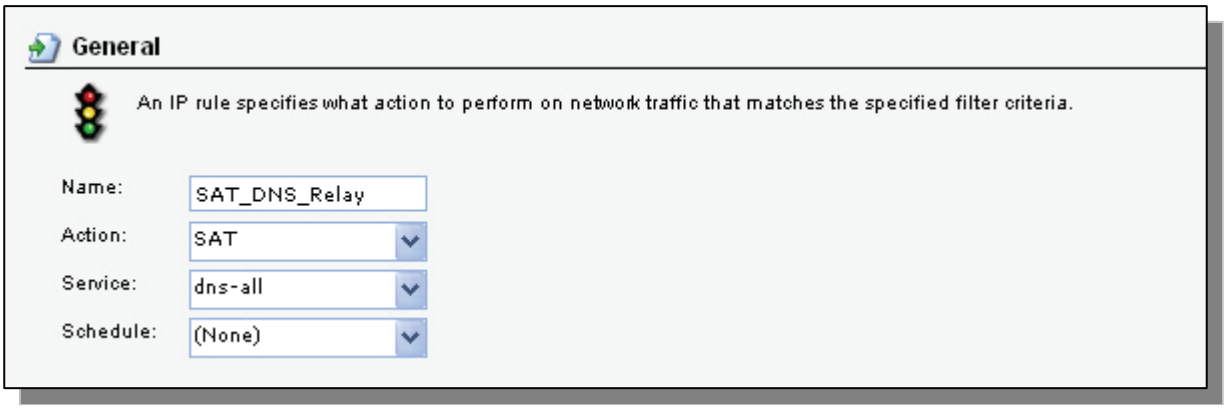
2. Create IP Rules to redirect DNS packets to Internet

Go to *Rules -> IP Rules*

Create a new IP Rule with SAT action.

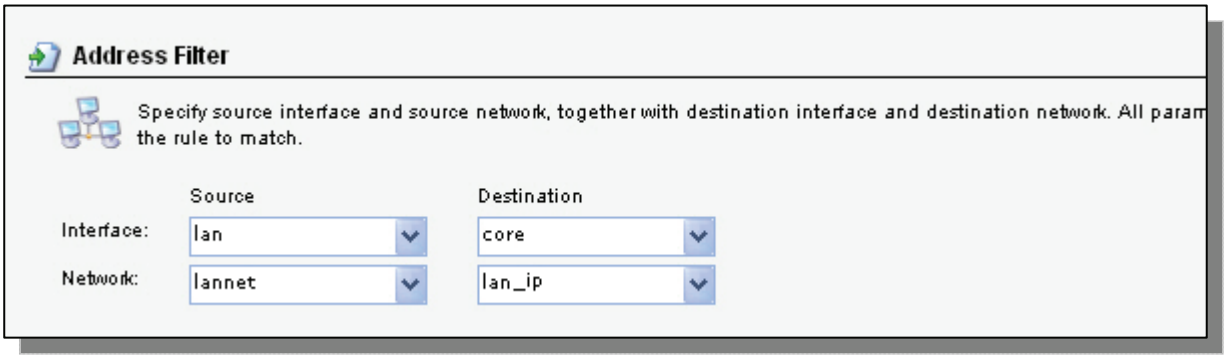
In the General tab:

General:



Name: **SAT_DNS_Relay**
Action: **SAT**
Service: **dns_all**

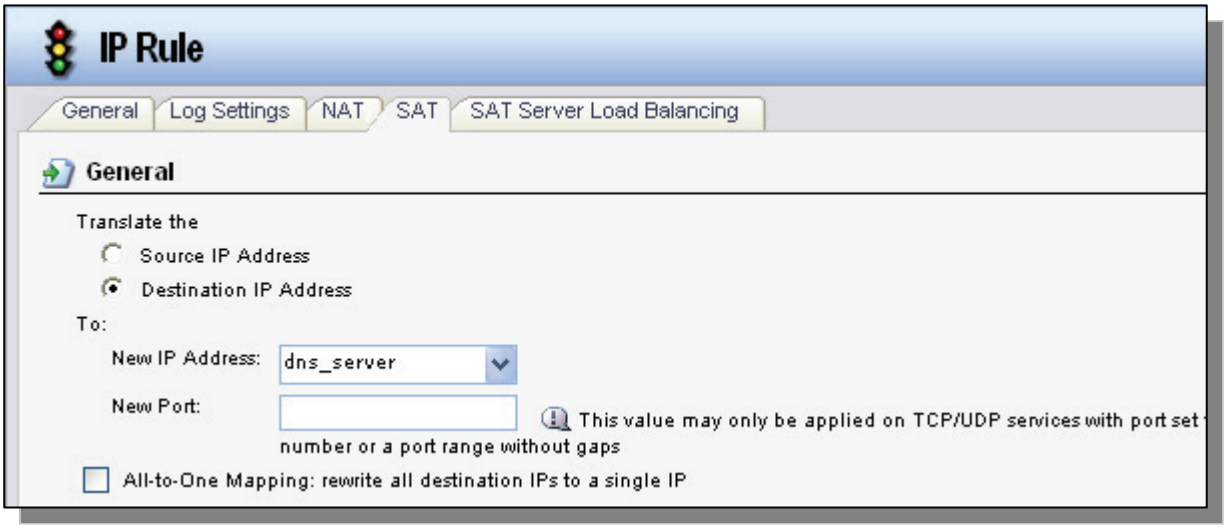
Address Filter:



Source Interface: **lan**
Source Network: **lannet**
Destination Interface: **core**
Destination Network: **lan_ip**

In the SAT tab:

General:

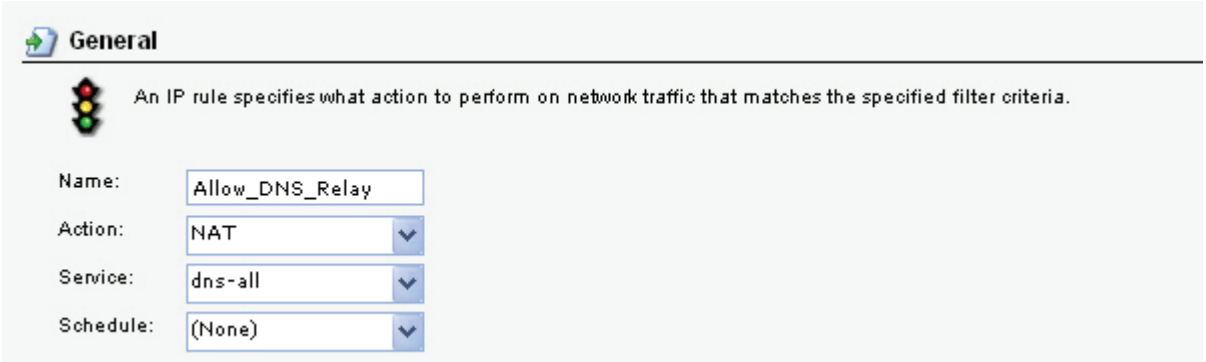


Translate the: **Destination IP Address**
New IP Address: **dns_server**

Click Ok.

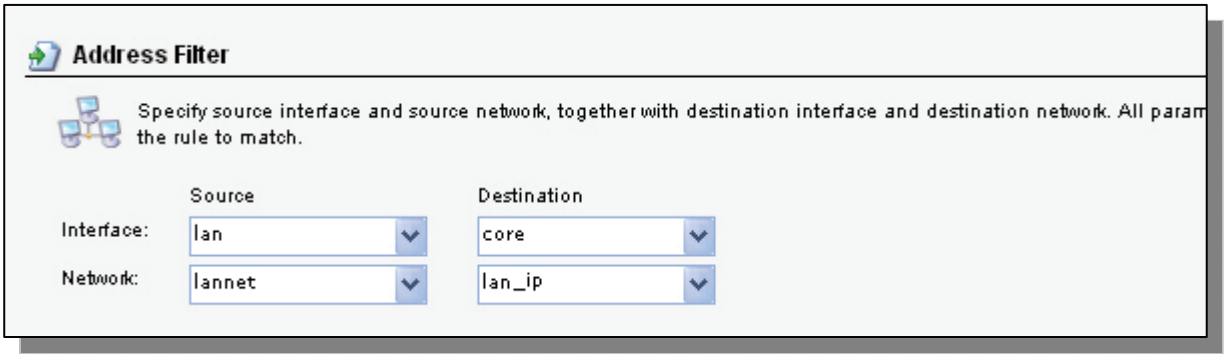
Create an identical IP Rule with NAT action. If the environment is not NAT, create a ALLOW rule instead.

In the General tab:



Name: **Allow_DNS_Relay**
Action: **NAT**
Service: **dns_all**

Address Filter:



Source Interface: **lan**
Source Network: **lannet**
Destination Interface: **core**
Destination Network: **lan_ip**

Click Ok.

Make sure these two rules are triggered before any generic rules (e.g. allow_standard rules).

And also, configure all PCs to have the firewall lan_ip (192.168.1.1) as DNS server.

Save and activate the configuration on firewall