

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.

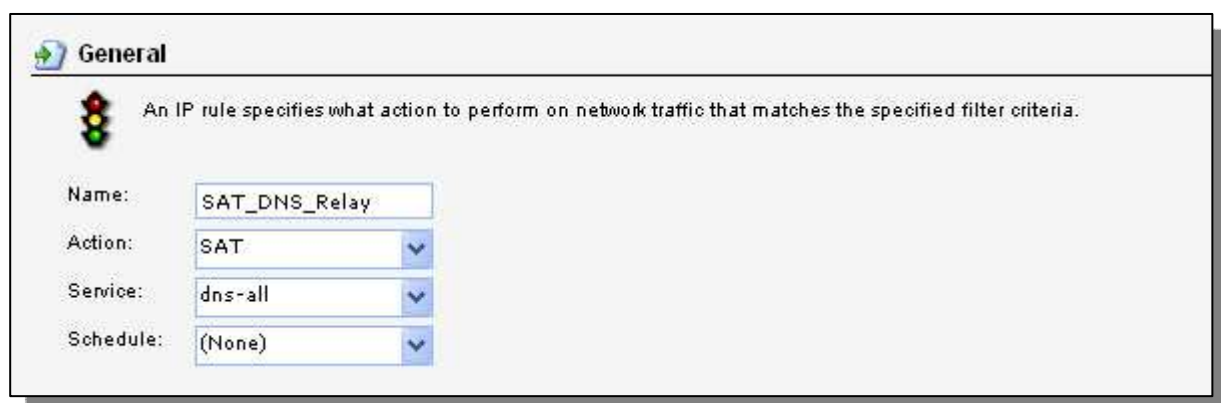
2. Create IP Rules to redirect DNS packets to Internet

Go to *Rules -> IP Rules*


Create a new IP Rule with SAT action.

In the **General** tab:

General:



General

 An IP rule specifies what action to perform on network traffic that matches the specified filter criteria.

Name:

Action:

Service:

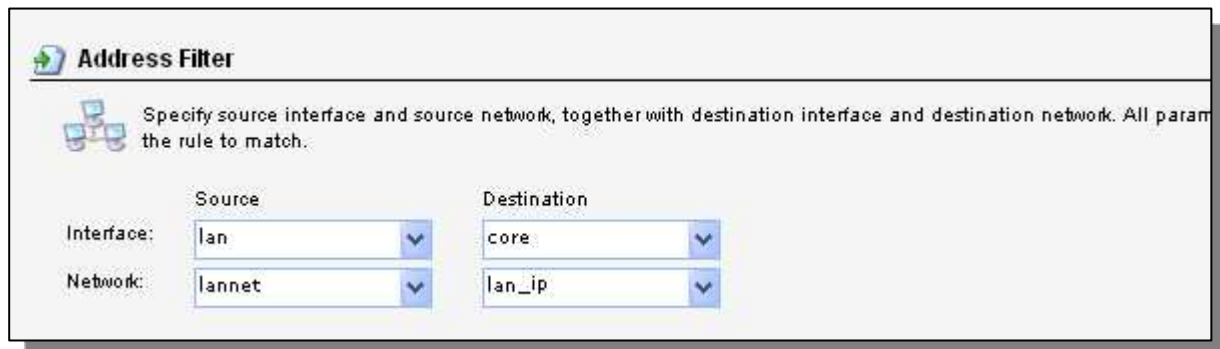
Schedule:

Name: **SAT_DNS_Relay**

Action: **SAT**

Service: **dns_all**

Address Filter:



Address Filter

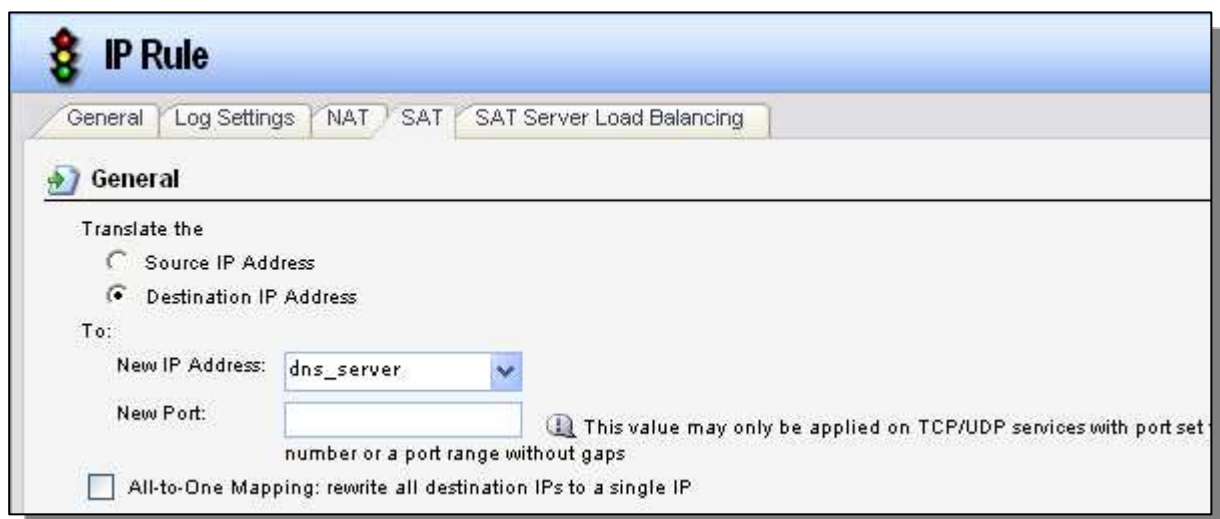
Specify source interface and source network, together with destination interface and destination network. All parameters are required to match the rule to match.

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

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

In the SAT tab:

General:



IP Rule

General Log Settings NAT SAT SAT Server Load Balancing

General

Translate the


Source IP Address

Destination IP Address

To:

New IP Address: dns_server

New Port:

 This value may only be applied on TCP/UDP services with port set number or a port range without gaps

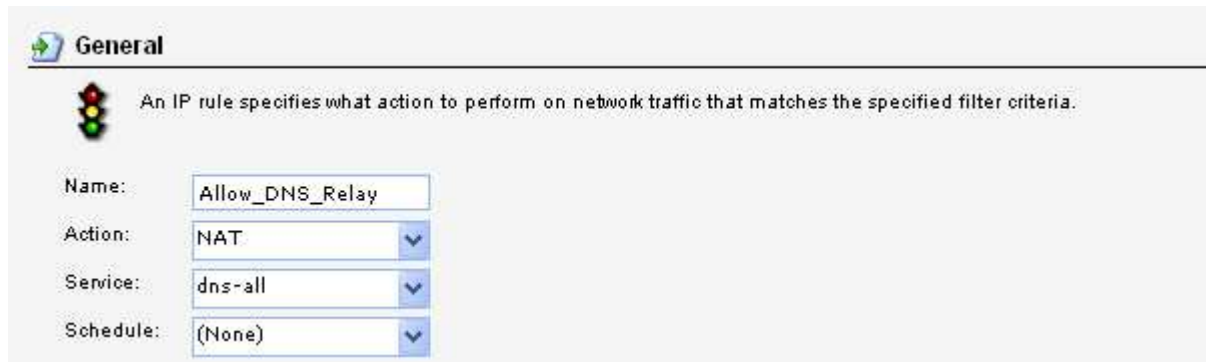
All-to-One Mapping: rewrite all destination IPs to a single IP

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:



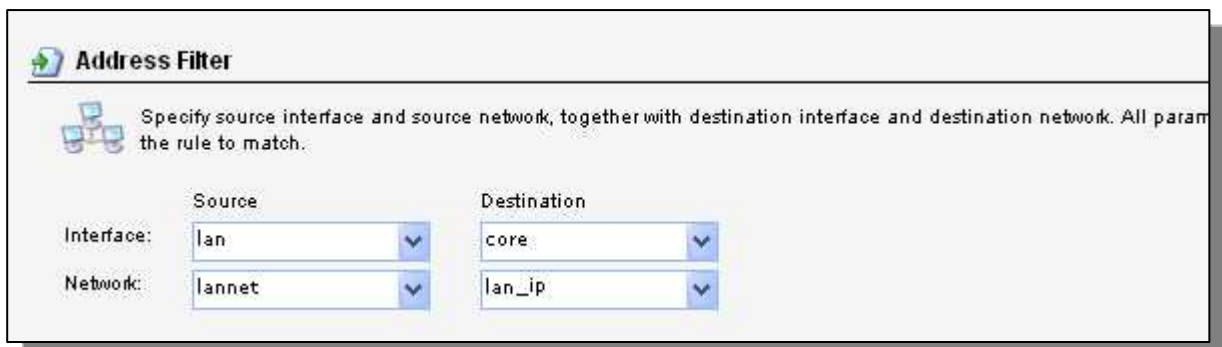
The screenshot shows the 'General' tab of an IP rule configuration. It includes a traffic light icon and a descriptive text: 'An IP rule specifies what action to perform on network traffic that matches the specified filter criteria.' Below this, there are four fields: 'Name' with the value 'Allow_DNS_Relay', 'Action' with a dropdown menu showing 'NAT', 'Service' with a dropdown menu showing 'dns-all', and 'Schedule' with a dropdown menu showing '(None)'.

Name: Allow_DNS_Relay

Action: NAT

Service: dns_all

Address Filter:



The screenshot shows the 'Address Filter' tab configuration. It includes a computer icon and a descriptive text: 'Specify source interface and source network, together with destination interface and destination network. All parameters must be specified for the rule to match.' Below this, there are four fields arranged in a 2x2 grid. The top row is labeled 'Source' and 'Destination'. The 'Interface' row has 'lan' for Source and 'core' for Destination. The 'Network' row has 'lannet' for Source and 'lan_ip' for Destination.

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