Contents

1 VyOS

Last modified: 2014-12-12 10:21:19

1.1 Querying system information

Action	Command
IP configuration	`show interfaces`
Routing	`show ip route`
Show configuration	`show`
Show log	`monitor log`, `show log tail`
Show IP traffic	`monitor interfaces`

1.2 CLI Modes

- operational mode (prompt $): view system status
- configuration mode (prompt #): modify system configuration

In configuration mode, you can execute “operational” commands by preceding them with `run`.

1.3 Basic configuration

Workflow:

```
vyos@vyos $ configure
vyos@vyos # [configuration commands]
vyos@vyos # commit
vyos@vyos # save
vyos@vyos # exit
vyos@vyos $
```

Action	Command
Set host name	`set system host-name HOSTNAME`
Set default gateway	`set system gateway-address 192.168.0.1`
Set DNS server	`set system name-server 8.8.8.8`
Turn on SSH access	`set service ssh listen-address 0.0.0.0`
Keyboard layout[1]	`sudo dpkg-reconfigure keyboard-configuration`
Set time zone	`set system time-zone [TAB]`

1.4 Configuring network interfaces

Action	Command
Run “normal” commands in config mode	`run COMMAND`
Set IP address on interface	`set interfaces ethernet eth0 address 192.168.0.1/24`
Run DHCP client on interface	`set interfaces ethernet eth0 address dhcp`
Set interface description	`set interfaces ethernet eth0 description WAN`

1.5 Static routing

Action	Command
Add route	`set protocols static route 192.168.0.0/24 next-hop 10.0.0.1 distance 1`
Set default route	`set protocols static route 0.0.0.0/0 next-hop 10.0.2.2 distance 1`
Drop traffic	`set protocols static route 172.16.0.0/12 blackhole distance ’254’`

1.6 RIP

Example with two directly connected networks:

```
# set protocols rip network 192.168.0.0/24
# set protocols rip network 192.168.1.0/24
# set protocols rip redistribute connected
```

1.7 Network Address Translation (NAT)

The following example adds a NAT rule with id 100 for a router with its WAN port on `eth0`. All IP addresses on the internal network 192.168.0.0/24 are translated into the router’s IP address on `eth0`.

```
# set nat source rule 100 outbound-interface ’eth0’
# set nat source rule 100 source address ’192.168.0.0/24’
# set nat source rule 100 translation address ’masquerade’
```

If you have multiple networks on the “inside”, add a separate rule with a different id (e.g. 200).

1.8 DNS forwarding

Use DNS forwarding if you want your router to function as a DNS server for the local network. There are several options, the easiest being ‘forward all traffic to the system DNS server(s)’ (defined with `set system name-server`):

[1] Use in non-config mode

```
# set service dns forwarding system
```

Manually setting a DNS server for forwarding:

```
# set service dns forwarding name-server 8.8.8.8
# set service dns forwarding name-server 8.8.4.4
```

Setting a forwarding DNS server for a specific domain:

```
# set service dns forwarding domain example.com server 192.0.2.1
```

Example: router with two interfaces `eth0` (WAN link) and `eth1` (LAN). A DNS server for the local domain (example.com) is at 192.0.2.1, other DNS requests are forwarded to Google's DNS servers.

```
# set service dns forwarding domain example.com server 192.0.2.1
# set service dns forwarding name-server 8.8.8.8
# set service dns forwarding name-server 8.8.4.4
# set service dns forwarding listen-on 'eth1'
```

1.9 Script template

Use the following as a template for a configuration script:

```
#!/bin/vbash
source /opt/vyatta/etc/functions/script-template

configure

# Fix for error "INIT: Id "TO" respawning too fast: disabled for 5 minutes"
delete system console device ttyS0

# Commands here

commit
save
```

1.10 Resources

- VyOS homepage
- User Guide
- Unofficial Vyatta Wiki
- Higebu's Git repos