

Server [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Ubuntu 16.04.2 LTS labti tty1

labti login: server

Password:

Last login: Fri Feb 10 13:15:54 WIB 2017 on tty1

Welcome to Ubuntu 16.04.2 LTS (GNU/Linux 4.4.0-62-generic x86_64)

* Documentation: <https://help.ubuntu.com>
* Management: <https://landscape.canonical.com>
* Support: <https://ubuntu.com/advantage>

298 packages can be updated.

210 updates are security updates.

server@labti:~\$ ifconfig

```
enp0s3    Link encap:Ethernet HWaddr 08:00:27:09:9b:4e
          inet addr:10.0.2.15 Bcast:10.0.2.255 Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:fe09:9b4e/64 Scope:Link
            UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
            RX packets:8683 errors:0 dropped:0 overruns:0 frame:0
            TX packets:1427 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1000
            RX bytes:12514869 (12.5 MB) TX bytes:99177 (99.1 KB)

lo       Link encap:Local Loopback
          inet addr:127.0.0.1 Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
            UP LOOPBACK RUNNING MTU:65536 Metric:1
            RX packets:168 errors:0 dropped:0 overruns:0 frame:0
            TX packets:168 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1
            RX bytes:12238 (12.2 KB) TX bytes:12238 (12.2 KB)
```

server@labti:~\$ _

server@labti:~\$ sudo nano /etc/network/interfaces

[sudo] password for server:

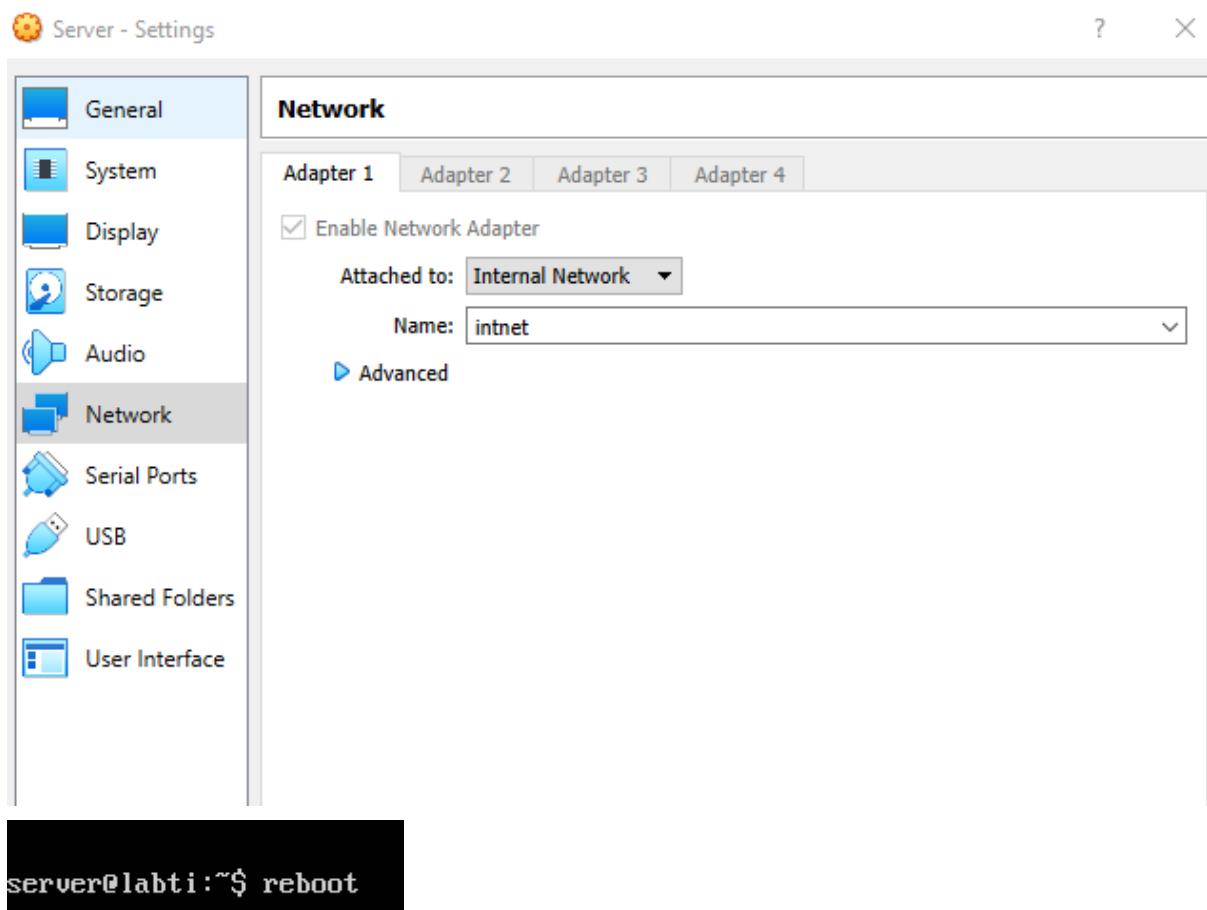
```
GNU nano 2.5.3           File: /etc/network/interfaces

# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto enp0s3
iface enp0s3 inet static
    address 192.168.1.10
    netmask 255.255.255.0
    gateway 192.168.1.1
    dns-nameservers 192.168.1.10
```



File Machine View Input Devices Help

```
Ubuntu 16.04.2 LTS labti tty1

labti login: server
Password:
Last login: Sat Apr  1 08:51:51 WIB 2023 on tty1
Welcome to Ubuntu 16.04.2 LTS (GNU/Linux 4.4.0-62-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

298 packages can be updated.
210 updates are security updates.

New release '18.04.6 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

server@labti:~$ ifconfig
lo      Link encap:Local Loopback
        inet addr:127.0.0.1  Mask:255.0.0.0
        inet6 addr: ::1/128 Scope:Host
              UP LOOPBACK RUNNING  MTU:65536  Metric:1
              RX packets:322 errors:0 dropped:0 overruns:0 frame:0
              TX packets:322 errors:0 dropped:0 overruns:0 carrier:0
              collisions:0 txqueuelen:1
              RX bytes:21538 (21.5 KB)  TX bytes:21538 (21.5 KB)
```

```
server@labti:~$ 
add-apt-repository      bind9-doc          install           reboot
apt                   bind9utils         isc-dhcp-server   sudo
autoclean             clear              nginx            update
autoremove            dist-upgrade       oracle-java8-installer upgrade
bind9                 ifconfig          ppa:webupd8team/java vsftpd
server@labti:~$ cd /etc/bind
server@labti:/etc/bind$ sudo nano named.conf.local
[sudo] password for server:
```

```
GNU nano 2.5.5                               file: named.conf.local

// Do any local configuration here
//

// Consider adding the 1918 zones here, if they are not used in your
// organization
//include "/etc/bind/zones.rfc1918";

zone "pratikum.labti.ug" {
    type master;
    file "/etc/bind/forward.labti";
};

zone "1.168.192.in-addr.arpa" {
    type master;
    file "/etc/bind/reverse.labti";
};
```

```
$TTL 86400
@ IN SOA praktikum.labti.ug. root.praktikum.labti.ug. (
    101 :Serial
    3600 :Refresh
    1800 :Retry
    604800 :Expire
    86400 :Minimum TTL
)
@ IN NS praktikum.labti.ug.
@ IN A 192.168.1.10
www IN A 192.168.1.10
```

```
server@labti:/etc/bind$ sudo cp forward.labti reverse.labti
server@labti:/etc/bind$ sudo nano reverse.labti_
```

```
$TTL 86400
@ IN SOA praktikum.labti.ug. root.praktikum.labti.ug. (
    102 :Serial
    3600 :Refresh
    1800 :Retry
    604800 :Expire
    86400 :Minimum TTL
)
@ IN NS praktikum.labti.ug.
@ IN A 192.168.1.10
10 IN PTR www.praktikum.labti.ug.
```

```
server@labti:/etc/bind$ sudo systemctl restart bind9
server@labti:/etc/bind$ nslookup praktikum.labti.ug
Server:          192.168.1.10
Address:        192.168.1.10#53

Name:  praktikum.labti.ug
Address: 192.168.1.10
```

```
# Defaults for isc-dhcp-server initscript
# sourced by /etc/init.d/isc-dhcp-server
# installed at /etc/default/isc-dhcp-server by the maintainer scripts

#
# This is a POSIX shell fragment
#

# Path to dhcpcd's config file (default: /etc/dhcp/dhcpcd.conf).
#DHCPD_CONF=/etc/dhcp/dhcpcd.conf

# Path to dhcpcd's PID file (default: /var/run/dhcpcd.pid).
#DHCPD_PID=/var/run/dhcpcd.pid

# Additional options to start dhcpcd with.
#       Don't use options -cf or -pf here; use DHCPD_CONF/ DHCPD_PID instead
#OPTIONS=""

# On what interfaces should the DHCP server (dhcpcd) serve DHCP requests?
#       Separate multiple interfaces with spaces, e.g. "eth0 eth1".
INTERFACES="enp0s3"
```

```
server@labti:~$ sudo nano /etc/dhcp/dhcpcd.conf
```

```
# option definitions common to all supported networks...
option domain-name "praktikum.labti.ug";
option domain-name-servers 192.168.1.10;

default-lease-time 600;
max-lease-time 7200;

# If this DHCP server is the official DHCP server for the local
# network, the authoritative directive should be uncommented.
authoritative;
```

```
#subnet 10.254.239.32 netmask 255.255.255.224 {  
#  range dynamic-bootp 10.254.239.40 10.254.239.60;  
#  option broadcast-address 10.254.239.31;  
#  option routers rtr-239-32-1.example.org;  
#}  
  
# A slightly different configuration for an internal subnet.  
subnet 192.168.1.0 netmask 255.255.255.0 {  
    range 192.168.1.20 192.168.1.30;  
    option domain-name-servers 192.168.1.10;  
    option domain-name "praktikum.labti.ug";  
    option subnet-mask 255.255.255.0;  
    option routers 192.168.1.1;  
    option broadcast-address 192.168.1.255;  
    default-lease-time 600;  
    max-lease-time 7200;  
}
```

```
server@labti:~$ sudo systemctl restart isc-dhcp-server  
server@labti:~$ sudo systemctl status isc-dhcp-server
```

```
[.../isc-dhcp-server.service  
24 dhcpcd -user dhcpcd -group dhcpcd -f -4 -pf /run/dhcp-server/dhcpcd.pid -cf /etc/dhcp/  
  
labti dhcpcd[1324]: For info, please visit https://www.isc.org/software/dhcp/  
labti dhcpcd[1324]: Wrote 0 leases to leases file.  
labti sh[1324]: Wrote 0 leases to leases file.  
labti dhcpcd[1324]: Listening on LPF/enp0s3/08:00:27:30:54:ad/192.168.1.0/24  
labti sh[1324]: Listening on LPF/enp0s3/08:00:27:30:54:ad/192.168.1.0/24  
labti dhcpcd[1324]: Sending on   LPF/enp0s3/08:00:27:30:54:ad/192.168.1.0/24  
labti sh[1324]: Sending on   LPF/enp0s3/08:00:27:30:54:ad/192.168.1.0/24  
labti dhcpcd[1324]: Sending on   Socket/fallback/fallback-net  
labti sh[1324]: Sending on   Socket/fallback/fallback-net  
labti dhcpcd[1324]: Server starting service.
```

```
; global options: +cmd  
;; Got answer:  
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 34046  
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 1, ADDITIONAL: 1  
  
;; OPT PSEUDOSECTION:  
; EDNS: version: 0, flags:; udp: 4096  
;; QUESTION SECTION:  
;praktikum.labti.ug.           IN      A  
  
;; ANSWER SECTION:  
praktikum.labti.ug.     86400   IN      A      192.168.1.10  
  
;; AUTHORITY SECTION:  
praktikum.labti.ug.     86400   IN      NS      praktikum.labti.ug.
```

```
praktikan@Client:~$ ping praktikum.labti.ug
PING praktikum.labti.ug (192.168.1.10) 56(84) bytes of data.
64 bytes from www.praktikum.labti.ug (192.168.1.10): icmp_seq=1 ttl=64 time=0.48
5 ms
64 bytes from www.praktikum.labti.ug (192.168.1.10): icmp_seq=2 ttl=64 time=1.28
ms
64 bytes from www.praktikum.labti.ug (192.168.1.10): icmp_seq=3 ttl=64 time=0.61
0 ms
64 bytes from www.praktikum.labti.ug (192.168.1.10): icmp_seq=4 ttl=64 time=0.88
0 ms
64 bytes from www.praktikum.labti.ug (192.168.1.10): icmp_seq=5 ttl=64 time=0.67
7 ms
```