Debian Setup als Router

Vorinstallation der benötigten Pakete

```
# apt-get update
# apt-get upgrade

# apt-get -y install vim
# apt-get -y install bind9p-server
# apt-get -y install isc-dhc
# apt-get install iptables-persistent
```

Konfiguration der Netze und des MASQUERADING

eth0 = WAN / eth1 = LAN

1. **Berarbeiten** und festlegen der **Netzkonfig** in der interfaces Datei:

   ```
   # vim /etc/network/interfaces
   ```

2. Festlegen der fixen Angaben zum interen **LAN Netzwerk**:

   /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 eth0
   iface eth0 inet dhcp

   # LAN Party Interface
   auto eth1
   iface eth1 inet static
   address 172.168.1.1
   netmask 255.255.255.0
   dns-nameservers 172.168.1.1
   ```

```
gateway 172.168.1.1
```

3. Now edit /etc/sysctl.conf and **uncomment**:

   # net.ipv4.ip_forward=1>

   so that it reads: net.ipv4.ip_forward=1

   and save it by entering

   :wq

4. To enable IP masquerading, enter following set of commands in terminal:

```
# iptables -t nat -A POSTROUTING -o eth0 -j MASQUERADE
# iptables -A FORWARD -i eth1 -o eth0 -m state --state
RELATED,ESTABLISHED -j ACCEPT
# iptables -A FORWARD -i eth1 -o eth0 -j ACCEPT

# iptables-save > /etc/iptables/rules.v4
```

5. Reboot des Systems: → **`init 0`**

Konfiguration DNS-Server für LAN Netz

/etc/bind/named.conf.local

```
# LAN-PARTY-NETWORK
zone "party.lan" in {
        type master;
        file "/var/lib/bind/db.party.lan"; };

zone "1.168.172.in-addr.arpa" in {
        type master;
        file "/var/lib/bind/db.172.168.1"; };
```

/var/lib/bind/db.party.lan

```
$TTL    604800
@       IN      SOA     (
                        ns.party.lan.                   ; MNAME Record
                        admin.party.lan.                ; Mail von DNS
Admin
                        2017022001                      ; Serial
                        604800                          ; Refresh
                        86400                           ; Retry
                        2419200                         ; Expire
                        604800 )                        ; Negative
```

```
Cache TTL

; name servers – NS und A records
@               IN      NS      ns.party.lan.
ns              IN      A       172.168.1.1

; 192.168.210.0/24 - A records
serv    IN      A       172.168.1.1
www    IN      A       172.168.1.1
```

/var/lib/bind/db.172.168.1

```
$TTL    604800
@       IN      SOA      (
                        ns.party.lan.                   ; MNAME Record
                        admin.party.lan.                ; Mail von DNS
Admin
                        2017022001                      ; Serial
                        604800                          ; Refresh
                        86400                           ; Retry
                        2419200                         ; Expire
                        604800 )                        ; Negative
Cache TTL

; name servers – NS record
@       IN      NS      ns.party.lan.

; 192.168.210.0/24 - PTR records
1       IN      PTR     serv.party.lan.
1       IN      PTR     www.party.lan.
```

/etc/bind/named.conf.options

```
# Konfigurationsfile /etc/bind/named.conf.options
# Definieren der Optionen unseres Bind-Servers.

options {
        directory "/var/cache/bind";

        recursion yes;                  # enables recursion queries
        allow-transfer { none; };       # disable zone transfers
        allow-query {
                192.168.0.0/16;         # allow queries for 192.168.*
                172.168.0.0/16;         # allow queries for 172.168.*
                127.0.0.0/8;
        };

        forwarders {
                8.8.8.8;
```

```
                8.8.4.4;
        };

        auth-nxdomain no;               # conform to RFC1035
#
};
```

Konfiguration DHCP-Server für LAN Netz

/etc/dhcp/dhcpd.conf

```
# DHCP Konfiguration – party.lan

ddns-update-style none;
default-lease-time 600;
max-lease-time 7200;
authoritative;
log-facility local7;

subnet  172.168.1.0 netmask 255.255.255.0 {

        range 172.168.1.100 172.168.1.130;
        interface eth1;
        option subnet-mask 255.255.255.0;
        option broadcast-address 192.168.210.255;
        option routers 172.168.1.1;
        option domain-name-servers 172.168.1.1;
        option domain-name "party.lan";
}
```

```
systemctl start isc-dhcp-server
systemctl enable isc-dhcp-server

systemctl status isc-dhcp-server
```

https://askubuntu.com/questions/590920/ubuntu-14-04-as-a-gateway-router-and-a-firewall

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Bessere Lösung →
https://gridscale.io/community/knowledgebase/tutorial-debian-routergateway-in-10-minuten/

Tutorial_ Debian Router_Gateway in 10 Minuten einrichten

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