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Port-Forwarding With rinetd On Debian Etch

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This article shows how you can do port-forwarding with [rinetd](#) on Debian Etch. rinetd allows you to forward ports from one system to another. This useful if you have moved your web sites to a new server with a different IP address. Of course, you have modified your DNS records, but it can take a few days until DNS changes become effective, and that is where rinetd comes into play. If clients still use the old DNS records, rinetd can redirect them to the new server. With rinetd, you do not have to fiddle with iptables rules.

I do not issue any guarantee that this will work for you!

1 Preliminary Note

In this example I'm trying to redirect HTTP traffic (port 80) from the IP address `192.168.0.101` to the IP address `192.168.0.100`.

Please note that rinetd is not able to redirect FTP because FTP requires more than one socket.

2 Installing And Configuring rinetd

To install rinetd, we simply run

```
apt-get install rinetd
```

rinetd's configuration file is `/etc/rinetd.conf`. To forward HTTP traffic from `192.168.0.101` to `192.168.0.100`, we add the line `192.168.0.101 80 192.168.0.100 80`:

```
vi /etc/rinetd.conf
```

```
#
# this is the configuration file for rinetd, the internet redirection server
#
# you may specify global allow and deny rules here
# only ip addresses are matched, hostnames cannot be specified here
# the wildcards you may use are * and ?
#
# allow 192.168.2.*
# deny 192.168.2.1?

#
# forwarding rules come here
#
# you may specify allow and deny rules after a specific forwarding rule
# to apply to only that forwarding rule
#
# bindaddress bindport connectaddress connectport
192.168.0.101 80 192.168.0.100 80

# logging information
logfile /var/log/rinetd.log

# uncomment the following line if you want web-server style logfile format
# logcommon
```

Then we restart rinetd:

```
/etc/init.d/rinetd restart
```

Now run

```
netstat -tap
```

and you should see that rinetd is listening on port 80 (*www*):

```
server2:~# netstat -tap
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 *:sunrpc                *.*                     LISTEN      1956/portmap
tcp        0      0 server2.example.com:www *.*                     LISTEN      2485/rinetd
tcp        0 0 *:3025                  *.*                     LISTEN      2347/rpc.statd
tcp        0 0 *:auth                  *.*                     LISTEN      2306/inetd
tcp        0 0 localhost.localdom:smtp *.*                     LISTEN      2294/exim4
tcp6       0 0 *:ssh                   *.*                     LISTEN      2326/sshd
tcp6       0 0 server2.example.com:ssh ::ffff:192.168.0.3:4776 ESTABLISHED 2409/0
server2:~#
```

Now when you direct your browser to a web page on the IP address *192.168.0.101*, it should receive that page from the server with the IP address *192.168.0.100*.

Instead of specifying the port numbers in */etc/rinetd.conf*, you can also use the service names. The service names are stored in */etc/services*, so when you open that file, you will see that the service for port 80 is named *www* on Debian.

```
grep 80 /etc/services
```

```
server2:~# grep 80 /etc/services
www          80/tcp      http        # WorldWideWeb HTTP
```

```
www          80/udp          # HyperText Transfer Protocol
socks        1080/tcp        # socks proxy server
socks        1080/udp
amanda       10080/tcp      # amanda backup services
amanda       10080/udp
omirr        808/tcp        omirrd          # online mirror
omirr        808/udp        omirrd
canna        5680/tcp      # cannaserver
zope-ftp     8021/tcp      # zope management by ftp
webcache     8080/tcp      # WWW caching service
tproxy      8081/tcp      # Transparent Proxy
omniorb     8088/tcp      # OmniORB
omniorb     8088/udp
server2:~#
```

So you could use the following configuration in `/etc/rinetd.conf`, it has the same effect as the first one:

```
vi /etc/rinetd.conf
```

```
#
# this is the configuration file for rinetd, the internet redirection server
#
# you may specify global allow and deny rules here
# only ip addresses are matched, hostnames cannot be specified here
# the wildcards you may use are * and ?
#
# allow 192.168.2.*
# deny 192.168.2.1?
#
```

```
# forwarding rules come here
#
# you may specify allow and deny rules after a specific forwarding rule
# to apply to only that forwarding rule
#
# bindaddress bindport connectaddress connectport
192.168.0.101 www 192.168.0.100 www

# logging information
logfile /var/log/rinetd.log

# uncomment the following line if you want web-server style logfile format
# logcommon
```

And to make rinetd listen on all IP addresses that are configured on the system where it is installed, we can use `0.0.0.0` as the *bindaddress*:

```
vi /etc/rinetd.conf
```

```
#
# this is the configuration file for rinetd, the internet redirection server
#
# you may specify global allow and deny rules here
# only ip addresses are matched, hostnames cannot be specified here
# the wildcards you may use are * and ?
#
# allow 192.168.2.*
# deny 192.168.2.1?

#
```

```
# forwarding rules come here
#
# you may specify allow and deny rules after a specific forwarding rule
# to apply to only that forwarding rule
#
# bindaddress bindport connectaddress connectport
0.0.0.0 80 192.168.0.100 80

# logging information
logfile /var/log/rinetd.log

# uncomment the following line if you want web-server style logfile format
# logcommon
```

After you've restarted rinetd...

```
/etc/init.d/rinetd restart
```

... rinetd should now listen on all interfaces (*:www):

```
netstat -tap
```

```
server2:~# netstat -tap
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 *:sunrpc                *:*                     LISTEN      1956/portmap
tcp        0      0 *:www                    *:*                     LISTEN      2503/rinetd
tcp        0  0 *:3025                   *:*                     LISTEN      2347/rpc.statd
tcp        0  0 *:auth                   *:*                     LISTEN      2306/inetd
tcp        0  0 localhost.localdom:smtp *:*                     LISTEN      2294/exim4
```

```
tcp    0    0 server2.example.com:www 192.168.0.3:4798    TIME_WAIT -
tcp6   0    0 *:ssh                *:*                LISTEN    2326/sshd
tcp6   0  148 server2.example.com:ssh ::ffff:192.168.0.3:4776 ESTABLISHED2409/0
server2:~#
```

3 Links

- rinetd: <http://www.boutell.com/rinetd>
- Debian: <http://www.debian.org>