

Linux perusteet [TTC1040]

harjoitus 13



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1. What is the current IP address on your Ubuntu?

```
user@P0033-Ubuntu:~$ ip address show
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: ens160: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc
    link/ether 00:50:56:88:0f:cf brd ff:ff:ff:ff:ff:ff
    inet 172.21.1.51/24 brd 172.21.1.255 scope global dynamic
        valid_lft 84015sec preferred_lft 84015sec
    inet6 fe80::250:56ff:fe88:fcf/64 scope link
        valid_lft forever preferred_lft forever
```

172.21.1.51

2. Find IP addresses of the websites listed below. Then add alternative names presented inside brackets for these hostnames into the hosts file. Test names with ping command.

- www.ubuntu.com (homepage)

```
user@P0033-Ubuntu:~$ ping -c 1 www.ubuntu.com
PING www.ubuntu.com (185.125.190.29) 56(84) bytes of data.
64 bytes from website-content-cache-3.canonical.com (185.125.190.29):
```

185.125.190.29

- www.linux.org (lforum)

```
user@P0033-Ubuntu:~$ ping -c 1 www.linux.org
PING www.linux.org (172.67.153.157) 56(84) bytes of data.
64 bytes from 172.67.153.157 (172.67.153.157): icmp_seq=1
```

172.67.153.157

- www.kernel.org (karch)

```

user@P0033-Ubuntu:~$ ping -c 1 www.kernel.org
PING ams.source.kernel.org (145.40.68.75) 56(84) bytes of data:
64 bytes from ams.source.kernel.org (145.40.68.75): icmp_seq=1 ttl=64 time=29.248 ms

--- ams.source.kernel.org ping statistics ---
1 packets transmitted, 1 received, 0% packet loss, time 0ms
rtt min/avg/max/mdev = 29.248/29.248/29.248/0.000 ms

```

145.40.68.75

```

GNU nano 4.8
127.0.0.1 localhost
127.0.1.1 ubuntu
185.125.190.29 homepage
172.67.153.157 lforum
145.40.68.75 karch

# The following lines are desirable for IPv6 capable hosts
::1 ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters

```

```

user@P0033-Ubuntu:~$ ping homepage
PING homepage (185.125.190.29) 56(84) bytes of data:
64 bytes from homepage (185.125.190.29): icmp_seq=1 ttl=43 time=36.3 ms
64 bytes from homepage (185.125.190.29): icmp_seq=2 ttl=43 time=36.6 ms
64 bytes from homepage (185.125.190.29): icmp_seq=3 ttl=43 time=36.4 ms
64 bytes from homepage (185.125.190.29): icmp_seq=4 ttl=43 time=36.6 ms
64 bytes from homepage (185.125.190.29): icmp_seq=5 ttl=43 time=36.7 ms

```

```

user@P0033-Ubuntu:~$ ping lforum
PING lforum (172.67.153.157) 56(84) bytes of data:
64 bytes from lforum (172.67.153.157): icmp_seq=1 ttl=53 time=6.23 ms
64 bytes from lforum (172.67.153.157): icmp_seq=2 ttl=53 time=6.08 ms
64 bytes from lforum (172.67.153.157): icmp_seq=3 ttl=53 time=6.18 ms
64 bytes from lforum (172.67.153.157): icmp_seq=4 ttl=53 time=6.24 ms
64 bytes from lforum (172.67.153.157): icmp_seq=5 ttl=53 time=7.05 ms

```

```

user@P0033-Ubuntu:~$ ping karch
PING karch (145.40.68.75) 56(84) bytes of data:
64 bytes from karch (145.40.68.75): icmp_seq=1 ttl=44 time=29.3 ms
64 bytes from karch (145.40.68.75): icmp_seq=2 ttl=44 time=29.3 ms
64 bytes from karch (145.40.68.75): icmp_seq=3 ttl=44 time=29.3 ms
64 bytes from karch (145.40.68.75): icmp_seq=4 ttl=44 time=29.3 ms

```

3. Use netstat to list all UDP ports your computer is listening.

```
user@P0033-Ubuntu:~$ netstat -aun
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
udp        0      0 127.0.0.53:53           0.0.0.0:*
udp        0      0 172.21.1.51:68          0.0.0.0:*
```

Niitä ei ole paljon.

4. Test the connectivity to address *www.techradar.com* with ping command using ten packets. What is the average ping time and what is the name of the server that responds?

```
user@P0033-Ubuntu:~$ ping -c 10 www.techradar.com
PING g.sni.us-eu.fastly.net (151.101.86.114) 56(84) bytes of data.
64 bytes from 151.101.86.114 (151.101.86.114): icmp_seq=1 ttl=51 time=10.6 ms
64 bytes from 151.101.86.114 (151.101.86.114): icmp_seq=2 ttl=51 time=10.7 ms
64 bytes from 151.101.86.114 (151.101.86.114): icmp_seq=3 ttl=51 time=10.7 ms
64 bytes from 151.101.86.114 (151.101.86.114): icmp_seq=4 ttl=51 time=10.7 ms
64 bytes from 151.101.86.114 (151.101.86.114): icmp_seq=5 ttl=51 time=10.7 ms
64 bytes from 151.101.86.114 (151.101.86.114): icmp_seq=6 ttl=51 time=10.6 ms
64 bytes from 151.101.86.114 (151.101.86.114): icmp_seq=7 ttl=51 time=10.7 ms
64 bytes from 151.101.86.114 (151.101.86.114): icmp_seq=8 ttl=51 time=10.6 ms
64 bytes from 151.101.86.114 (151.101.86.114): icmp_seq=9 ttl=51 time=10.8 ms
64 bytes from 151.101.86.114 (151.101.86.114): icmp_seq=10 ttl=51 time=10.7 ms

--- g.sni.us-eu.fastly.net ping statistics ---
10 packets transmitted, 10 received, 0% packet loss, time 9015ms
rtt min/avg/max/mdev = 10.578/10.678/10.750/0.054 ms
```

Aika pitkälle 10.7 millisekuntia on keskiarvo.

Serverin nimi on g.sni.us-eu.fastly.net

5. Install a network monitor tool called *NetHogs* to your Ubuntu. Open a new SSH connection to your virtual machine (for example using Putty) and start NetHogs tool through this window. Now install MySQL server from the other window using the command presented below. How is this installation process shown in NetHogs and what is approximately the download speed (KB/sec)?

```
user@P0033-Ubuntu:~$ sudo apt install nethogs
[sudo] password for user:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following package was automatically instal
```

Nethogs sisään ja avaan uuden puttyn ja aloitan nethogsin siinä

```
user@P0033-Ubuntu:~$ sudo apt install mysql-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following package was automatically installed a
squashfs-tools
```

Alkuperäsessä ikkunassa mysql sisään

```
nethogs version 0.8.3-2build2
```

PID	USER	PROGRAM	DEV	SENT	RECEIVED
12772	_apt	..sr/lib/apt/methods/http	ensl60	23.439	4781.459 KB/sec
11135	user	sshd: user@pts/1	ensl60	7.461	1.319 KB/sec
?	root	unknown TCP		0.000	0.000 KB/sec
TOTAL				30.900	4782.778 KB/sec

Latausnopeus on suurin piirtein 4781.459 Kb/sekuntia