

Linux perusteet [TTC1040]

harjoitus 11



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1. How do you stop SSH service with systemd and make sure it won't start during system bootup? Do this task and verify it by booting the system. (Important: do not do this if you are using VLE environment, but rather only write how you would do this!)

```
systemctl stop ssh.service
```

```
systemctl disable ssh.service
```

2. Create a scheduled task with systemd which writes date command output into the file date.txt on user's home directory every two minutes on current day each week. For example if now is tuesday, date information will be written on every tuesday on every week.

```
GNU nano 4.8 /etc/systemd/system/write_date.service
[Unit]
Description=Date information will be written into /home/user/date.txt

[Service]
Type=oneshot
ExecStart=/usr/bin/sh -c '/usr/bin/date >> /home/user/date.txt'
```

```
write_date.service
```

```
GNU nano 4.8 /etc/systemd/system/write_date.timer
[Unit]
Description=write_date.service is run every Wednesday every 2 minutes

[Timer]
OnCalendar=Wed *:0/2
```

```
write_date.timer
```

```
user@P0033-Ubuntu:~$ sudo nano /etc/systemd/system/write_date.service
user@P0033-Ubuntu:~$ sudo nano /etc/systemd/system/write_date.timer
user@P0033-Ubuntu:~$ sudo systemctl start write_date.timer
```

Laitetaan päälle

```
user@P0033-Ubuntu:~$ systemctl list-timers
NEXT LEFT LAST PASSED UNIT ACTIVATES
Wed 2021-11-17 12:35:45 EET 7s left Wed 2021-11-17 12:35:37 EET 15ms ago print_date.timer print_date.service
Wed 2021-11-17 12:36:00 EET 22s left Wed 2021-11-17 12:34:00 EET 1min 36s ago write_date.timer write_date.service
```

Tuntuu toimivan oikein.

```
GNU nano 4.8
Wed Nov 17 12:32:19 EET 2021
Wed Nov 17 12:34:00 EET 2021
Wed Nov 17 12:36:07 EET 2021
Wed Nov 17 12:38:17 EET 2021
Wed Nov 17 12:40:21 EET 2021
Wed Nov 17 12:42:21 EET 2021
Wed Nov 17 12:44:21 EET 2021
Wed Nov 17 12:46:21 EET 2021
```

date.txt:ssä on kivasti aikatietoja

3. Check help for systemctl command. How can you only list enabled unit files that are services?

```
user@P0033-Ubuntu:~$ systemctl list-unit-files --state=enabled --type=service
UNIT FILE                                STATE    VENDOR PRESET
accounts-daemon.service                 enabled  enabled
apache2.service                         enabled  enabled
apparmor.service                       enabled  enabled
atd.service                             enabled  enabled
autovt@.service                         enabled  enabled
blk-availability.service                 enabled  enabled
cloud-config.service                   enabled  enabled
cloud-final.service                     enabled  enabled
cloud-init-local.service                 enabled  enabled
```

53 tässä koneessa.

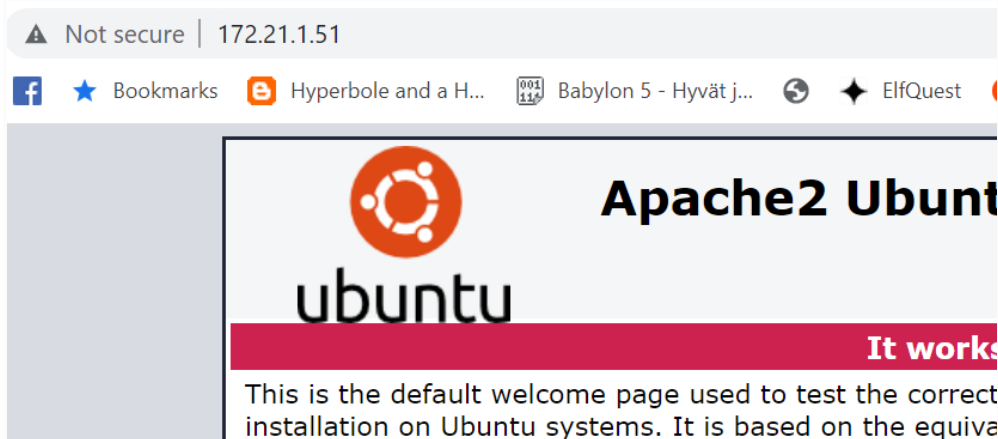
4. Install Apache2 web server to your Ubuntu with apt package management.

With what name was this service installed as systemd service? Web server is started during system bootup by default and listens to port 80. Change systemd setting for this service so that it will not be started automatically during system bootup. Reboot the system and verify that web server has not been started (port 80 is not listened).

```
user@P0033-Ubuntu:~$ sudo apt install apache2
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following package was automatically installed and is
squashfs-tools
Use 'sudo apt autoremove' to remove it.
```

```
user@P0033-Ubuntu:~$ systemctl list-unit-files | grep apache2
apache2.service          enabled          enabled
apache2@.service         disabled        enabled
```

Systemd:ssä se asennettiin kuvaavasti nimelle apache2.service



Se on tosiaan päällä kuten äskeinen komento näytti.

```
user@P0033-Ubuntu:~$ sudo systemctl disable apache2
[sudo] password for user:
Synchronizing state of apache2.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install disable apache2
Removed /etc/systemd/system/multi-user.target.wants/apache2.service.
```

Laitetaan apache2 pois päältä

Ja sit sudo reboot.



This site can't be reached

172.21.1.51 refused to connect.

Try:

- Checking the connection
- [Checking the proxy and the firewall](#)

ERR_CONNECTION_REFUSED

Juu, ei pääse sivua kattomaan.

```

user@P0033-Ubuntu:~$ systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; vendor preset: enabled)
   Active: inactive (dead)
     Docs: https://httpd.apache.org/docs/2.4/
lines 1-4/4 (END)

```

Ei ole päällä.

5. Create a directory called backup to your home directory. Now create a regular backup with systemd so that the following files from /var/log directory will be added to *backup.tar.gz* archive every day (you may choose the time this occurs daily) and saved into the backup directory inside your home directory:

- auth.log
- kern.log
- faillog

```

user@P0033-Ubuntu:~$ mkdir backup
user@P0033-Ubuntu:~$ ls -l | grep backup
drwxrwxr-x 2 user user 4096 Nov 17 13:29 backup

```

kansion luonti, tarkistetaan että se on olemassa

```

GNU nano 4.8
[Unit]
Description=Execute backup.service every day at 15.00

[Timer]
OnCalendar=*:*:0/2

```

backup.timer kuntoon. Testausvaiheessa oli toki pakko asettaa timeriin eri aika, muuten olisi pitänyt ventata tietoja aika pitkään.

```

GNU nano 4.8 /etc/systemd/system/backup.service
[Unit]
Description=Save auth.log, kern.log and faillog to /home/user/backup and archive backup directory

[Service]
Type=oneshot
ExecStartPre=/usr/bin/sh -c 'cp /var/log/auth.log /var/log/kern.log /var/log/faillog /home/user/backup'
ExecStart=/usr/bin/sh -c 'tar -czvf /home/user/backup.tar.gz /home/user/backup'

```

backup.service

```

user@P0033-Ubuntu:~$ sudo systemctl start backup.timer
user@P0033-Ubuntu:~$ ls -l
total 63532
drwxr-xr-x 19 user user 4096 Oct 28 10:38 Python-3.7.4
-rw-rw-r-- 1 user user 23017663 Sep 26 2019 Python-3.7.4.tgz
drwxrwxr-x 2 user user 4096 Nov 17 14:05 backup
-rw-r--r-- 1 root root 86248 Nov 17 14:05 backup.tar.gz
drwxrwxr-x 3 user user 4096 Oct 13 11:50 d1

```

Sinne ainakin on ilmestynyt backup.tar.gz.

```
user@P0033-Ubuntu:~$ cd backup
user@P0033-Ubuntu:~/backup$ ls -l
total 736
-rw-r----- 1 root root 329920 Nov 17 14:06 auth.log
-rw-r--r-- 1 root root  32320 Nov 17 14:06 faillog
-rw-r----- 1 root root 409923 Nov 17 14:06 kern.log
```

Sinne ainakin kivasti kopioituvat nuo lokitiedostot.

```
GNU nano 4.8 /etc/systemd/system/backup.t
[Unit]
Description=Execute backup.service every day at 15.00

[Timer]
OnCalendar=*-*-* 15:00:00
```

Sitten vielä lopuksi oikea timeriaika.

```
user@P0033-Ubuntu:~/backup$ sudo nano /etc/systemd/system/backup.timer
user@P0033-Ubuntu:~/backup$ sudo systemctl start backup.timer
user@P0033-Ubuntu:~/backup$ sudo systemctl status backup.timer
● backup.timer - Execute backup.service every day at 15.00
   Loaded: loaded (/etc/systemd/system/backup.timer; static; vendor pre
   Active: active (waiting) since Wed 2021-11-17 14:18:20 EET; 8s ago
   Trigger: Wed 2021-11-17 15:00:00 EET; 41min left
   Triggers: ● backup.service
```

Ainakin on aktiivinen

```
user@P0033-Ubuntu:~/backup$ systemctl list-timers
NEXT           LEFT          LAST          PASSED        UNIT
Wed 2021-11-17 15:00:00 EET 38min left    n/a           n/a           backup.timer
```

Siellä ihan oikein odottelee kelloa 15. (Pysäytin timerin ennen kuin muutin .timer-tiedostoa, joten siksi se ei laske noita aiempia tapahtumia mitä oli silloin, kun timer oli 2 sekunnin välein).