

This tutorial requires you to work with the Lab-VM provided by us.

## 6.1 Telnet

- Send a mail using the SMTP protocol by using a Telnet client that connects to the University's mail server (smtp.uni-saarland.de). The mail should be sent from hon-unit06@nt.uni-saarland.de to your s8XXXX@stud.uni-saarland.de address. Please do not excessively use this service, as the mail server is also used by other parties. You are responsible for what you do!
- HONour Task: Add proper From, and Subject headers to your mail so that your mail client displays it nicely.

## 6.2 SSH

This task has to be completely executed inside the VM. It might be a bit confusing that your remotely login to the very same system, but the concepts are the same and when you log into another system later, you will have to do the same steps.

- a) Generate a local public-private keypair, keeping the default name.
- b) Login to the SSH server on the HON VM using the default credentials.
- c) Play around (e.g. create a file on the desktop and see it appear on the GUI). Type exit to logout again.
- d) As a login using the credentials is tedious, configure key-based authentication.
- e) Validate your setup by logging in without entering credentials.
- f) Check the files in ~/.ssh/ and see what you have generated and how the keys got distributed. You might also checkout /etc/ssh/ to see how the SSH server is configured and which keys are used.

## 6.3 DNS

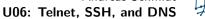
Imagine you are responsible for the domain hon.de and have the namespace server dns1.hon.de. The domain has a web server (IP 10.5.1.7) with internal name vimes that is reachable via the www subdomain. Furthermore the domain has a mail server (IP 10.5.1.6) with internal name moist.

• Setup dnsmasq by editing the file ~/dnsmasq.conf as follows:

```
interface=lo
bind-interfaces
log-queries

auth-server=dns1.hon.de,lo
auth-soa=2017030101,hostmaster.hon.de,21600,3600,604800
auth-ttl=86400
auth-zone=hon.de,10.5.1.0/24
```

• Start dnsmasq in a terminal by running dnsmasq -kd -C ~/dnsmasq.conf.





- Add your first host entries for the webserver and check if it resolves:
  - dig @localhost A hon.de
- Add an entry that makes www.hon.de point to the right server and check with dig.
- Add the mail configuration and check using:
  - dig @localhost MX mail.hon.de
- Note: You have to restart dsnmasq after editing its configuration file. You can stop the running dnsmasq with Ctrl+C.