

Exercise for Networking (10 points)

1. Please determine the MAC address of the ethernet interface of the Linux workstation assigned to you (see appendix). Use the `/sbin/ifconfig` command for this.

- Please create a screen shot about the terminal window (network-1-mac.jpg).

(1 point)

2. Invoke the command `/usr/bin/traceroute` to find the route to the host assigned to you (see appendix).

- Please create a screen shot about the output (network-2-trace.jpg).

(1 point)

3. Please list the configuration files: `/etc/hosts`, `/etc/hostname`, `/etc/network/interfaces`, of the Linux workstation assigned to you (see appendix).

- Please create the screen shots about the output: network-3-hosts.jpg for the first two files, network-4-interfaces.jpg for the interfaces file.

(2 points)

4. Make a portscan from `otter.risc.uni-linz.ac.at` by means of `gnome-nettool` to the Linux workstation assigned to your (see appendix).

- please create a screen shot about the output: netscreen-5-scan.jpg.

(1 point)

5. Log in from your computer to `gorilla.risc.uni-linz.ac.at` using `'ssh -v '`. Please evaluate the debug output und split it in the three parts of the ssh protocoll:

transport layer, user authentication layer, connection layer.

Copy the ssh log data in OpenOffice Writer (oowriter) and comment please the three parts of the output clearly, which one where begins and ends. Insert your photo in the oowriter document. Create a pdf file from the oowriter contents as `network-ssh-layers.pdf`.

(4 points)

6. Select the following services from the `/etc/services` file: `www`, `smtp`, `pop`, `ssh`, `https` using the `grep`, `egrep` command in a terminal window.

- create a screen shoot about the output as `network-services.jpg`

(1 point)

Put the screen shots and the pdf file to your lecture home directory into `/home/<yourlogin>/exercises/network/`.

Dealine: December 20, 2009.

Appendix: I already sent an email to all of the CBWE course participants with the name of a RISC computer and with the name of a computer on the internet, which you have to use for this exercise.