

Practical Exercises
Communication Systems (Rechnernetze II)

Topic 8: Static Routing

Exercise 0:

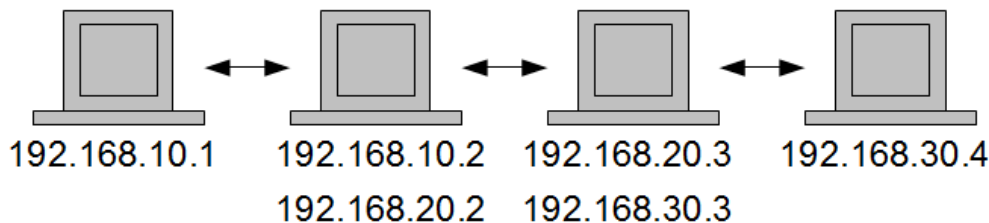
Work in groups of 4 notebooks, you can use your own notebook, too.

Useful commands:

- `echo 1 > /proc/sys/net/ipv4/ip_forward`
- `route -n`
- `route add 'target ip' gw 'gateway ip'`
- `route del 'target ip' gw 'gateway ip'`
- `modprobe dummy`
- `ip link set up dev dummy0`

Exercise 1:

Set up the network as it is given by the figure. Try to ping the other notebooks in your group. Is it working?



Exercise 2:

For a working network (you can ping everybody in your group) use the given commands. Try to set the proper gateways.

Hint: every routing table has a gateway out of your group. You should set up ip forwarding at first.

Exercise 3:

Analyse some routes in your network. You can use `traceroute 'target ip'` to see which steps are between you and your target. What can you see?

Exercise 4:

Setup a `dummy0` interface. Edit your routing table if necessary. Try to ping dummy interfaces from other people.

Exercise 5:

What happens if you try the command `traceroute 192.168.50.1`.