Network protocols

# Exercises for the laboratory

All exercises should be performed on a Linux system.

1. Enter the Linux command, through which you can manually send an ARP query to the specified IP.
2. Host A wants to send 10 data packets to host B using the TCP protocol. How many packets will be sent from Host A to B, and how many from B to A?
3. Convert the following masks to numeric format:
   1. /14
   2. /12
   3. /20
4. What is the maximum possible number of hosts on the subnet with mask:
   1. 255.255.255.0
   2. 255.255.224.0
   3. 248.0.0.0
   4. 255.255.255.252
5. Check IP addresses of 10 websites of your choics using ping and nslookup.Which method is faster and why?

# Homework

1. Host A has been connected to the local network. He intends to use the DHCP configuration, then use the ARP to discover the hardware address of host 192.168.0.5 and send him 12 data packets. How many packages will host A send and receive? **(2 pkt)**
2. Convert the following masks to numeric format: (**1 pkt)**
   1. /15
   2. /22
   3. /9
3. What is the maximum possible number of hosts on the subnet with mask: **(1 pkt)**
   1. 255.248.0.0
   2. 255.255.252.0
   3. 255.255.255.254