S-38.115 Signaling Protocols, Exercise 5 Appendix

Software Installation

Those students who decided to do the exercise at home have to download and install the
following software (keep attention which software version you are downloading):

- **Windows Messenger 5.0.**
  Windows Messanger 5.0 can be downloaded from the following webpage:
  http://www.microsoft.com/downloads/details.aspx?familyid=77c3799f-6388-4193-8002-be55584c1ac1&displaylang=en.
- **Winpcap 3.0** (http://winpcap.mirror.ethereal.com/install/default.htm)
- **Ethereal 0.10.2** (http://www.ethereal.com/download.html)

Connecting to the proxy server at Netlab

1. Run Window Messenger

2. Set up

- Select [Tools]-[Options] from the menu to open the options.
- Click on the [Accounts] tab.
- Check the box for "My contacts include users of a SIP Communications Service" to
  activate the selection.
- At the "Sign-in name" text field fill out an SIP-URL:
  StudentNumber@set.netlab.hut.fi, where the StudentNumber is a student number
  written in capital letters e.g. 54321A@set.netlab.hut.fi (with this SIP-URL a user can
  receive calls from other users).
- Click on the [Advanced] button to open "SIP Communications Service Connection
  Configuration".
- Check the box for "Configure setting" to activate the setting.
- Fill out the computer name of the proxy server: **set.netlab.hut.fi**.
- Under "Connection using", check the box for "UDP".
- Press [OK] to save the configuration.

3. Start session

- In the Windows Messenger main window, click the **Click here to sign in** link.
- In the **Sign In** dialog box, type your student number (written in capital letters) in both
  user name and password fields.
- Add a contact to the My Contacts list.
  - At the bottom of the main Windows Messenger window, under **I want
    to...**, click **Add a Contact**.
  - In the Add a Contact Wizard, click **By e-mail address or sign-in name.**
  - Type your contacts (**marcin@set.netlab.hut.fi** and other student(s) SIP-
    URL(s)).

How to make a call and use presence service

Please note that because the Presence service is not well implemented in the current software version, only one party can be visible online. Therefore only one party is able to originate a call. The procedure should look as follows:
A party who has logged into the SIP proxy as a second should originate a call (he/she can see other party online).
If other party wants to originate a call he/she has to logout and login again.
In case of the Presence service the procedure works the other way around:
A party who has logged into the SIP proxy as a first can test presence service.
If other party wants to test the Presence service, the first party must logout and login again.

How to make a VoIP call
Refer to "**How to Call a Computer**" on the Windows Messenger HowTo web pages (link below). Remember that you need headphones and microphone in order to make a conversation. Computers s-mikro-74 and s-mikro-85 in the computer hall F402 are equipped with microphone and headphones.

How to change your status (presence service)
Refer to **"How to Let Others Know That You Are Not Available"** on the Messenger HowTo web pages (link below).

Windows Messanger HowTo web pages (instructions how to use Windows Messenger)
http://support.microsoft.com/default.aspx?kbid=307887&product=WinMsgr

Capturing packet traces

1. Run Ethereal
2. Select [Capture]-[Start] from the menu to open the capture options.
3. Choose proper interface from the interface list. If there are no interfaces available, reinstall Winpcap.
4. In order to see packets in real time select the **Update list of packets in real time** option.
5. Press OK.
A list of packets will be presented in the upper part of the main window.
The lower part of the main window presents a protocol stack. This information should be used for SIP messages analysis.
6. Press the red cross mark or the **stop** button in second window to finish packet capturing.
7. In order to filter only SIP or RTP messages you can use the **display filter** functionality (in the left-down corner of the main window). Type **sip** or **rtp** respectively in the **filter** text box.
8. You can save packet traces in an Ethereal format file [File]-[Save] or in a text file [File]-[Print] and select the **Plain text** and the **Output to file** options.

In case of any problems please post a message to the newsgroup
news://news.tky.hut.fi/opinnot.sahko.s-38.tietoverkkotekniikka