



CEng 491 Senior Design Project Proposal

08.10.2007

1 Group Members and Roles

Can HOŞGÖR – 1395094 – The Leader, Gatekeeper (Expected grade : AA)

Çağla ÇIĞ – 1448554 – Optimist, Summarizer, Recorder (Expected grade : BA)

Elvan GÜLEN – 1448687 – Devil's Advocate, Timekeeper, Initiator (Expected grade : AA)

Nazif İlker ERÇİN – 1395003 – Gatekeeper, Optimist, Devil's Advocate (Expected grade : BA)

2 Rules of the Project Group

- The project work and meetings have the highest priority over all other works.
- If someone misses a meeting, he will be warned.
- Everyone can criticize each other about his project work.
- Disagreements between the group members should be solved immediately by all group members.
- If there is a delay in the schedule of the project, extra meetings will be arranged to cover.
- There will be a meeting in every week about the progress.
- The group members will be communicating on the internet using MSN Messenger or GoogleTalk. Except from these, every member has the phone numbers of the other members.

3 Risks

	<u>Possibility to happen</u>	<u>Effect on the Project</u>
➤ Health issues	%10	%5
➤ Lack of interest	%10	%20
➤ Withdrawing the lecture	%1	%25
➤ Lack of experience and training	%20	%20
➤ Problems between group members	%25	%10
➤ Problems with the supporting company	%10	%20
➤ Lack of useful documentation	%5	%25
➤ Technical problems	%5	%15

4 Project Description

The project is about Auto-Identification/Classification of Common IP Protocols. The project requires advanced network knowledge and real time processing.

In network systems, data is delivered using packets. These packets include some header information such as source and destination port numbers as well as the information itself optionally in compressed or encrypted form. Although most protocols require communication over a specific port number, today it is possible to reconfigure network programs to use non-standard port numbers.

The final program is expected to capture the packets over the network and identify the protocols used during the communication even though it is specified for a network program to use a different port. The program will not be designed to directly interface with the network hardware, instead it will take the **PCAP files** as an input to operate on. The

protocols that should be identified by the program are HTTP, SIP, POP3, SMTP, IMAP and IM(various instant messaging programs like MSN Messenger and Yahoo! Messenger) using an **Auto Sensing** algorithm that is embedded in a decoder system. Finally the program should produce outputs in an appropriate format as *Microsoft ASF format* for voice files, ".eml" for e-mail messages, ".avi" for video files, ".jpg" for image files and etc.

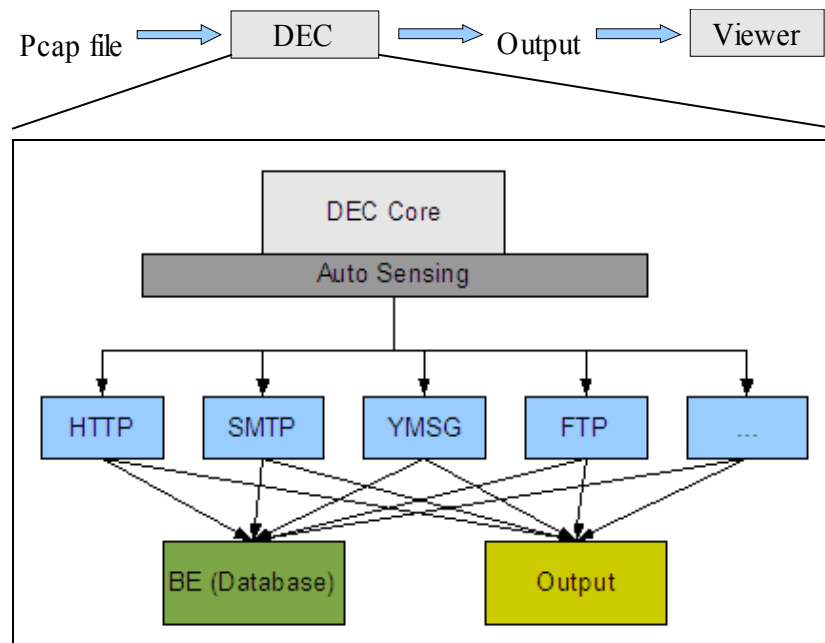


Figure 1 : A simple model of the Project