*j*Shark

Network Protocol Analyzer for Android

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Feasibility Report

Objective of the project:

Porting the core functionalities of Windows based network protocol analyzers such as Wireshark into Android

The need for the project:

Wireshark is the most popular network protocol analyzer for Unix and Windows. It is free and open source. Even though Android is currently the fastest growing platform, Wireshark is not available for that platform.

By implementing at least the basic functionalities of a general network protocol analyzer such as capturing WLAN packets, displaying them with facilities to filter packets by protocols and logging captured packets, a solution to troubleshooting networks using mobile devices can be provided.

Technical Feasibility:

Implementing this project needs a good knowledge in technologies like C, C++, Java, Android and QT. Even though I don't have the required expertise in any of those technologies, I am confident that I can obtain information from the open source world.

Wireshark documentation and source code are available on their website. IDE's for all the programming languages are available freely.

I believe that technical information that I may require during the development process can be obtained by joining mailing lists.

Budget and Time Constraint Feasibility:

Since all technologies are available free and open source, there will not be direct monetary costs involved.

The project has to be completed within 12 weeks. Porting a software like Wireshark completely to Android within that time frame is not feasible. Therefore only the core functionalities mentioned below will be implemented.

- Capturing WLAN packets
- Display captured packets with ability to filter through them
- Log captured packets

System Integration Feasibility:

The solution is intended to be implemented as a stand-alone installable application in Android platform. Therefore no integration issues expected at this moment.

Overall Feasibility:

The project is feasible given the constraints such as need for the project, available technology and time remain unchanged.