

Project Proposal – VoIP interface for Intercom System

1. Introduction

The Savox IMP Control and Command System is part of the Savox Mounted Soldier System concept. This advanced platform offers high quality communications for both land and maritime/naval operations.

The design brief for the Savox IMP command and control system was simple: Create a versatile, easy-to-use system that is battle damage resilient, technologically upgradeable and has reduced through life costs.

The Savox IMP system is always configured according to user needs, it allows instant access to 2 radio nets, IMP can connect 12 radios and 30 people.

2. Project goals

Laptops with Windows or Linux OS are connected to IMP system. VoIP application needed to develop to make and receive calls between laptop and IMP. VoIP application should have service part that interfaces to IMP system and separated graphical user interface application.

3. Technologies

As interfacing to IMP system, Ethernet, IP and UDP headers will come familiar as ARP and ICMP protocols too. Audio encoding and it's scrambling will also be clarified during project. Understanding of WinPcap (Windows) and Ncap (Linux) network capture libraries and drivers are needed. We prefer Python and/or C++ for coding, Qt could be used for user interface development.

4. Requirements for the students

Preferring application programming skills from majority of the group.

Difficulty of Qt programming.....Easy

Difficulty of user experience design.....Moderate

Difficulty of network programming.....Moderate+

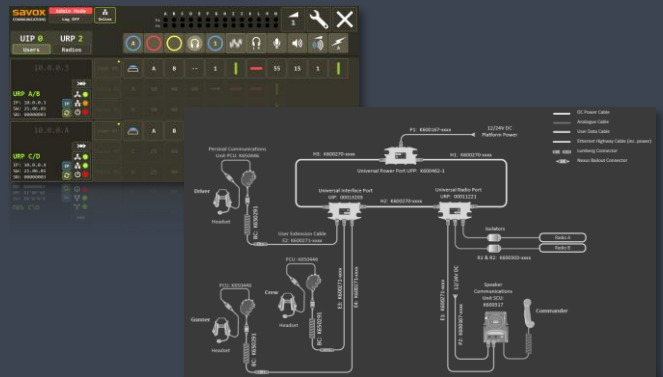
Difficulty of audio specified programming.....Easy

5. Legal Issues

Intellectual Property Rights (IPR): The client gets all IPRs to the results.

Confidentiality: The client will share some confidential information with the students.

Students participating in the project must sign a non-disclosure agreement (NDA) with Savox Communications Oy Ab



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6. Client

Savox expertise is based on improving and saving lives by providing safety, rescue and communication solutions for professionals working in demanding environments. The product and service portfolio are extended and strengthened with industrial, rugged and security computers and displays. Savox has offices in Espoo, Savonlinna, Tampere and Jyväskylä in Finland.

Veli-Matti is available for sprint planning meetings, backlog grooming and sprint review meetings. And he is ready during the sprint few hours per week to have small talks and share the pain.

Joona will attend all necessary meetings.

Savox gives demonstration of Intercom System at Keilaranta 15 B, Espoo.



Client representative(s)

Software Manager

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Preselected Student Team Members

Savox does not have any preselected team members.

7. Additional information

All documentation in English

Microsoft Teams in Savox preferred as communication channel

Check Youtube videos



Savox IMP <https://www.youtube.com/watch?v=p37L9XqM9yk>



Savox Tactical <https://www.youtube.com/watch?v=qCjBAL58PuE>

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