USER MANUAL

SecVoIP by CUBE

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1. GENERAL INFORMATION

1.1. System Overview

SecVoIP by CUBE is an embedded handset which provides end-to-end secure voice over internet protocol (VoIP) communication. This embedded handset is designed for users or companies who suffer security problems while communicating. It provides reliable communication between staffs in a company or institution. However, our final product is only a prototype that needs further developing.

1.2. Scope of the User Manual

User Manual of the SecVoIP by CUBE describes the requirements in order to be capable of using the handset. This manual covers the software and hardware parts of our product and explains how to correlate them. Also it explains system requirements, installation procedure and setup process of the system. Troubleshooting ways are also included.

1.3. Contact Us

For the detailed information, you can contact to us through by e-mail:

   e-mail: mutoprak [at] gmail.com

Or, you can visit our website for more information:

   Website: http://senior.ceng.metu.edu.tr/2010/cube/

2. HOW TO USE SecVoIP

2.1 Installation

2.1.1 System Requirements

   2.1.1.1 Hardware Requirements
   • Atmel’s NGW100 embedded board
   • Speakers connected to GPIO pins
   • 128 Mb SD card
   • Ethernet connection with LAN and workstation

   2.1.1.2 Software Requirements
   • Software on the station connected to Atmel’s NGW100 embedded board
   • Software on the station connected to LAN
   • Software on the embedded board
   • Software requirements package can be retrieved from the address below:
     http://www.ceng.metu.edu.tr/~e1395078/secvoip_v_1.0.rar
   • JamVM: Open-source JAVA Virtual Machine which can run on NGW100
• LPE Play: A software developed for playing audio files on NGW100

2.1.1.3 Environment Requirements

• Java Runtime Environment (JRE)
• Operating system independent on workstations
• Linux 2.6.33.4 ABDAC enabled kernel on-board

2.1.2 Before Installation

• Retrieve software package from: http://www.ceng.metu.edu.tr/~e1395078/secvoip_v_1.0.rar
• Set up your NGW100 with the above software and hardware requirements.
• Connecting headsets to board: Unfortunately, NGW100 does not have speaker socket, so it must be handled manually. First, connect the ground of headset to the ground of J6 expansion pins. Then connect left channel of the headset to the DATA0 and right channel of the headset to the DATA1 pin of J6.

2.1.3 Setup and How to Use

Our project is developed in Java, so it is very easy to execute. There is no need to recompilation provided that you do not make any changes in the source code. Software package must be installed to both the workstations and to the board; SD Card preferably. Then run the code on both workstations and on board. On your screen you will see;

```
Then, enter the IP address of the computer you want to communicate:
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```
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When the receiver responds you by writing “y”;

the conversation starts successfully.

“Connection reset by peer!” means that you cut off the communication.

3 TROUBLESHOOTING

Please contact us via e-mail: mutoprak [at] gmail.com