USIM Card API

Complete interfacing solution for LTE SIM card

Overview

USIM Card API is an advanced middleware library written in C, which connects low-level smartcard drivers with client applications (e.g. UE stacks, USIM customization frontends) and coordinates communication between them.

USIM Card API provides an extra level of abstraction for developers, thanks to which they can significantly shorten implementation of USIM-related features, especially in the embedded environments. Any smart card reader driver can be adapted to work with the USIM Card API.

Main products features:

- Accessing data on USIM is abstracted into a filesystem, where files can be read and written.
- Easy access to USIM’s cryptography module for user verification and network authentication.
- Running and interacting with applications stored on the USIM can be programmable.

A typical setup includes a smart card reader with a USIM card, USIM Card API library plus APIs and a frontend to demo with. The demo implementation is using libPCSCLite and was tested on Ubuntu 14.04.

Applications

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<th>Benefit</th>
<th>Who can benefit?</th>
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<td>Building connection between stack and hardware</td>
<td>Shortens Stack verification</td>
<td>UE producers</td>
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<tr>
<td>USIM customization</td>
<td>Shortens Setup time</td>
<td>Network operators</td>
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About IS-Wireless

IS-Wireless is a Polish software developer and IP provider specializing in advanced solutions for wireless systems. IS-Wireless develops 4G and 5G algorithms, protocols and tools.

Our clients are primarily early technology adopters including ODMs, OEMs, chip vendors, and operators. We operate globally delivering our services to companies and organizations from Europe, USA, Africa and Asia. The company is engaged in EU FP7 projects on 5G and is active in delivering technical courses on advanced telecom.

Contact Sales

We would be excited to learn about your business and technical needs and propose a product or customization to fulfill them. To receive more information about our products or request a quote, please contact us at sales@is-wireless.com.

Technical specification summary

- USIM Card API conforms to:
  - ISO/IEC 7816-4
  - ETSI TS 102 221
  - ETSI TS 131 101
  - ETSI TS 131 102
- Direct support for libPCSClite

Deliverables

USIM Card API is delivered as a library compiled for desired target and a set of headers describing C API.

Figure 2: USIM Card API Architecture