An open source eID simulator

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Abstract: The German BSI started a project for an open source eID simulator. It will allow a wide range of personalisation, is more flexible than real cards and is free to use.

Background and goals

There is a rising need of test cards for developers of eID clients and companies which want to offer services by using the eID function of the German eID card. Today is difficult get test cards for new developers who want to evaluate the eID functions in their systems. Also for improvements and development of new protocols a open implementation of the eID functions would be helpful. Therefore the German BSI started a project together with HJP for an implementation of an open source eID simulator which provides all functionality of the German eID card.

We will implement all functions of the eID functions as described in BSI TR-03110 and provide all sources of this implementation to interested developers which wants to participate in improving the simulator or just use it for their development. Part of this project is also a “virtual card reader driver” which provides direct PC/SC access to the eID card simulator (see figure 1).

![Diagram](image)

Figure 1: Link between eID client and eID card simulator

Later on we will start to port the simulator to mobile NFC devices (e.g. Android smartphones). Over the NFC interface the mobile device shall act in card emulation mode to simulate an eID card with all functions.