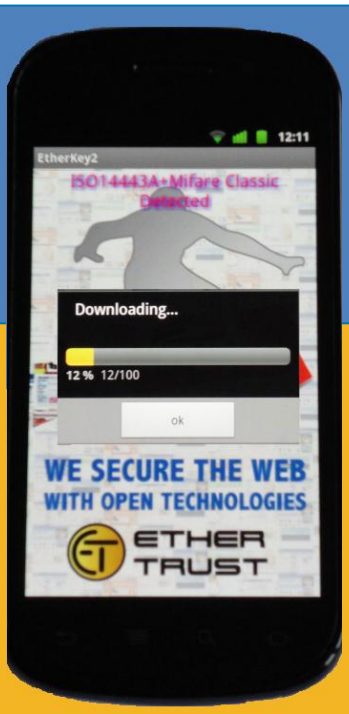
ETHER TRUST



"Thanks to EtherTrust, I access all my Web sites in a faster and easier way than ever before. I'm sure my data are securely transmitted and now I can trust my Web services..."

EtherTrust Solutions

Benefices

NFC Mobile Applications

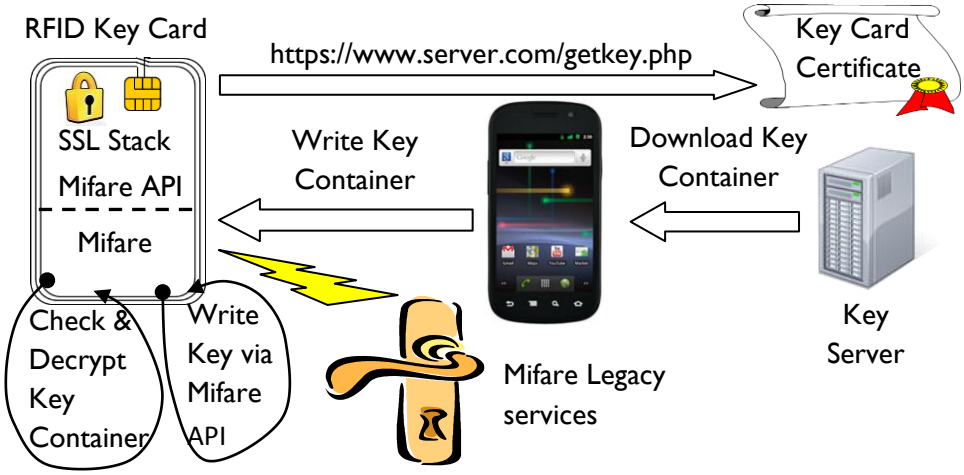
Mobile and Secure Key Delivery Platform

Use Case

Android is a popular operating system for smartphones that supports Peer To Peer and Reader NFC modes.

Problems to Solve

Numerous services such as ticketing or physical access control are today working with NFC devices, compliant with Mifare or ISO14443 standards. Many applications providers would like to replace the legacy kiosks delivering NFC cards, by Mobile Internet Services, i.e. moving towards dematerialized platforms.



The EtherTrust solution works with a dual interface Secure Element, compliant with Mifare and ISO14443 standards. An embedded SSL/TLS stack performs a strong mutual authentication with the remote Key Server. The Android phone provides Internet connectivity and User Interface facilities. A Key Container is downloaded via an HTTPS request by the mobile that manages HTTP operations while the SSL protocol is handled by the Secure Element. A Key Container is a value encrypted by the NFC card public key and signed by an authorized entity. It is afterwards pushed to the card that checks and decrypts its content, which is thereafter written in the appropriate Mifare block.

This Mobile Service is compatible with legacy NFC platforms and the Android operating system

About EtherTrust

EtherTrust markets software for smart cards and designs innovative solutions that strengthen the security of WEB applications whilst, dramatically simplifying their use.

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A KEY FOR THE INTERNET OF THINGS

St Peter statue, Vatican

Jackson Pollock, The Key, 1946

The Burghers of Calais (Rodin 1889). In 1347 a Calais burgher carries the keys to the city and castle.

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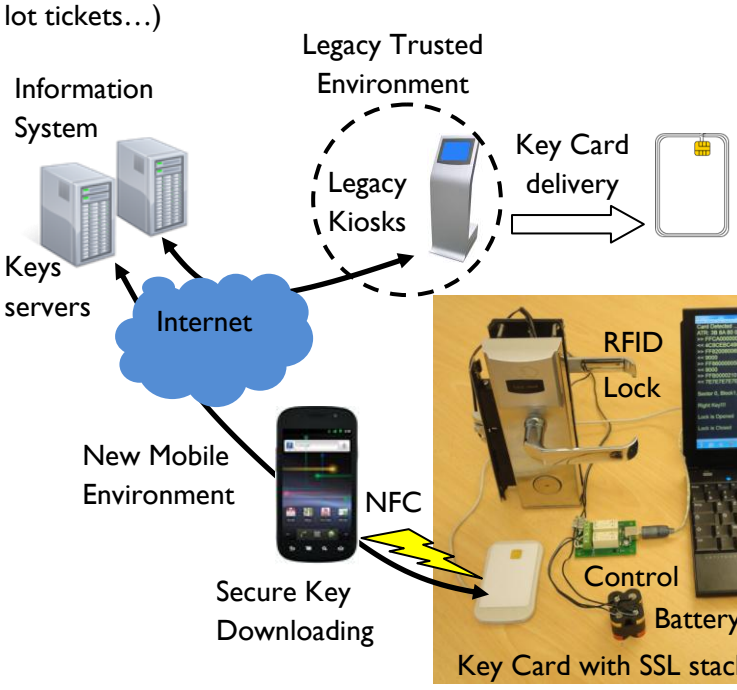
In our everyday life we use numerous locks for multiple purposes, typically physical access control to offices, transports, garages or cars. There is a trend to replace mechanical components by electronic devices. As an illustration, most of hotel rooms are equipped with electronic locks usually working with magnetic strip cards. Nerveless these zip cards are gradually replaced by RFIDs, most of them are based on a radio technology named NFC (Near Field Communication). MIFARE chips, designed since 1994 by the NXP Company, are the most popular NFC devices. They are widely deployed for ticketing or access control.

In the legacy architectures, keys stored in RFIDs are produced by Information Systems and are written either in trusted environment (hotel lobbies, security manager office) or via dedicated kiosks (boarding pass, lot tickets…)



In our new system the RFID is equipped with an SSL stack performing mutual authentication with the remote Keys Servers, and securely downloading key value in the RFID (i.e. MIFARE blocks).

Smartphones provide multiple communication links with the Keys Servers such as internet connectivity, WEB browsing, mobile applications and SMS messaging.

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