Ethertrust develops and markets SSL/TLS/DTLS middleware for Secure Elements.

ETHERTRUST développe des technologies basées sur l'Identité numérique pour les mobiles et l'IoT.

- Identités basées sur la confiance : Certificats stockés dans des Secure Elements (Tamper Resistant)
- Protocoles TLS : Technologie EtherTrust TLS Stack (ETS) implémentée dans les Secure Elements et mettant en œuvre des mécanismes d'authentification mutuelle forte
  - Garantit les identités qui s'insèrent dans les puces, les objets eux-mêmes et les serveurs destinés à les reconnaître.
  - Mise en ligne de Secure Elements gérés par des Cloud de sécurité.

EtherTrust TLS Stack

La FRENCH TECH

Secure Mobile Applications

Access Control

Mobile Payments

Internet of Things

Cloud Security

Ethertrust develops and markets SSL/TLS/DTLS middleware for Secure Elements (SE).

ETHERTRUST: http://www.ethertrust.com
Simon ELRHARBI : Simon.elrharbi@ethertrust.com
+33 6 84 98 70 71

EtherTrust TLS Stack

La FRENCH TECH

Secure Mobile Applications

Area of interest	Y or N
CIP-01-2016-2017: **Telecom**	Y
CIP-01-2016-2017: **Health**	Y
CIP-01-2016-2017: **Finance**	Y
SEC-10-FCT-2017	N

Mobile Payments

Access Control

Internet of Things

Cloud Security

Competencies

- *Organisation competencies*
  - **Security**
- *Organisation experience in the European project*
  - **EtherTrust is involved with several projects in the SC fields and also in the NFC Technologies:**

    OnDemand (FEDER – France))

    SECFUNET (Security fo Future Networks – FP7)

    PODIUM (FUI – France)
- *The skills you can bring*
  - **Design security solutions based on Smart Card**
  - **SE based Infrastructure for securing on-line payment, remote access, cloud storage and IoT.**
  - **TLS stacks that are embedded in SE to enable strong mutual authentication based on certificates and asymmetric keys**
- *Why:*
  - **To simplify the user experience (NFC "tap & Go") for login (with Certificate and Entering PW (Electronic Signature)**
  - **To ensure secure access to any IP resource and secured privacy for web application**

Project idea

- *Describe your project idea*
  - **The purpose of the project is to provide the ultimate security and privacy for IoT PF and to build the mandatory elements of a TLS/DTLS Secure Identity modules embedded in Secure Element:**

    Tamper resistance and secure communications and storage.
  - **The design starts from the hardware and the lower layers of communications protocols and ends with diverse applications from real world use cases such as semantic Social wearable IoT data sharing and recommendation services.**
- *List of the complementary skills you need for your consortium*
  - **SE suppliers**
  - **Real world use cases and Social IoT Recommendation**
  - **University**

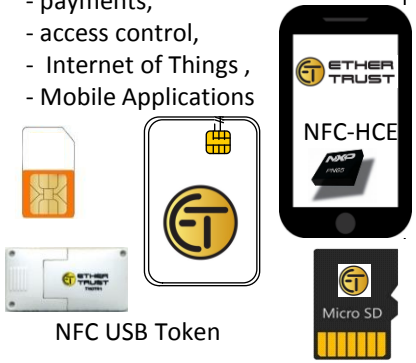
Backup

Introducing EtherTrust

Technology

The EtherTrust TLS Stack (ETS) works with all the Secure Elements of the market.

It is involved in the following products :
-electronic identity (OPENID),
- payments,
- access control,
- Internet of Things ,
- Mobile Applications



NFC USB Token

Customers/Partners

SAFRAN Morpho

Up CEV

Chèque Déjeuner

Ariane

tyfone

NEOWAVE

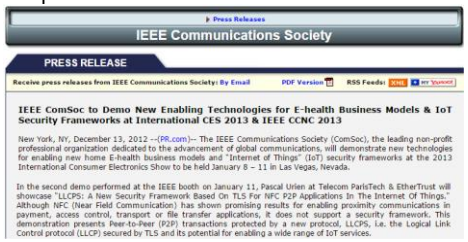
implementa

Demo and Press release…

- Awarded by the 11th national contest for the support of innovative start-ups (“ 11ieme concours national d’aide à la création d’entreprises de technologies innovantes ”) organized by the French ministry of research and universities
- Sesames 2008
- Finalist of the “ Grand prix de l’innovation de la ville de Paris 2009”

- Five patents in progress
- Normalization actions thanks to IETF drafts
- Participation to European projects & FUI

CES 2015, Eureka Park,EtherTrust was one of 66 FrenchTech Startups
https://www.youtube.com/watch?v=m6HkILEm72w

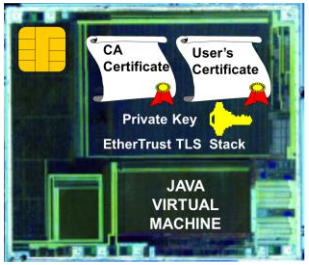


Chicago, April 3, 2009, "New USB Key Uses Smart Card Technology for Faster, More Secure Website Login" "Ethertrust offers a strong one-step authentication technology based on smart card technology (SIM, Java, etc.) and functional with all operating systems including Microsoft, Apple, and Linux. Based on SSL and on EAP standards (EAP-TLS, EAP-SIM, EAP-AKA), its products simplify and secure website identification…”

Technology and Products

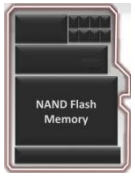
Basic Technology

Basic (patented) technology, the ETS application (Client and Server) for Secure Elements.
-20 KB memory footprint for TLS/DTLS client
-30 KB memory footprint for TLS/DTLS client/server
Main benefits for customers
- Full TLS/DTLS protocol in a secure and low cost microcontroller
- Identity for device and objects
- Strong mutual authentication



NFC USB Token

SIM



SecureSD

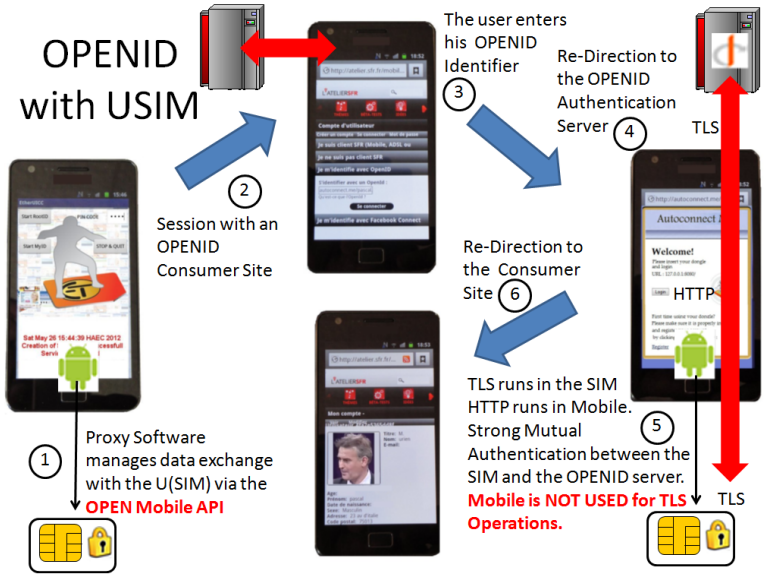
NFC Controller

OPENID Platform for Mobile Operators

OPENID (patented) Platform designed for Safran Morpho, EtherTrust released the following components
- ETS for SIM
- ETS-API and application for Android
- OPENID server including Identity management for ETS

www.safran-group.com/fr/atom/4248

SAFRAN Morpho



Compatible with 1 million eCommerce Service Providers

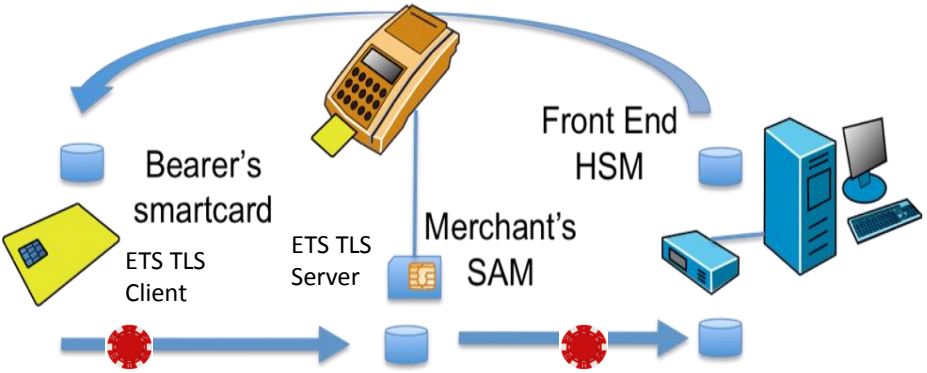
Technology and Products

Prepaid Platform for Chèque Déjeuner

Dematerialization of restaurant vouchers

Client hold NFC cards, equipped with ETS

Merchant terminal (SAM) equipped with ETS

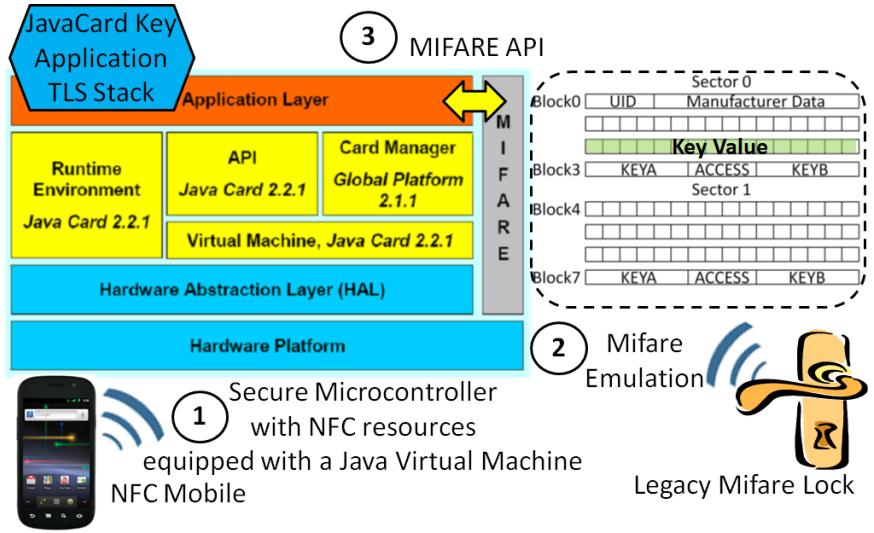


Electronic Key Distribution Platform for Ariane

Dual key NFC card interfaces (patended), including the ETS component and Mifare interface

Demonstrated at the CES 2012

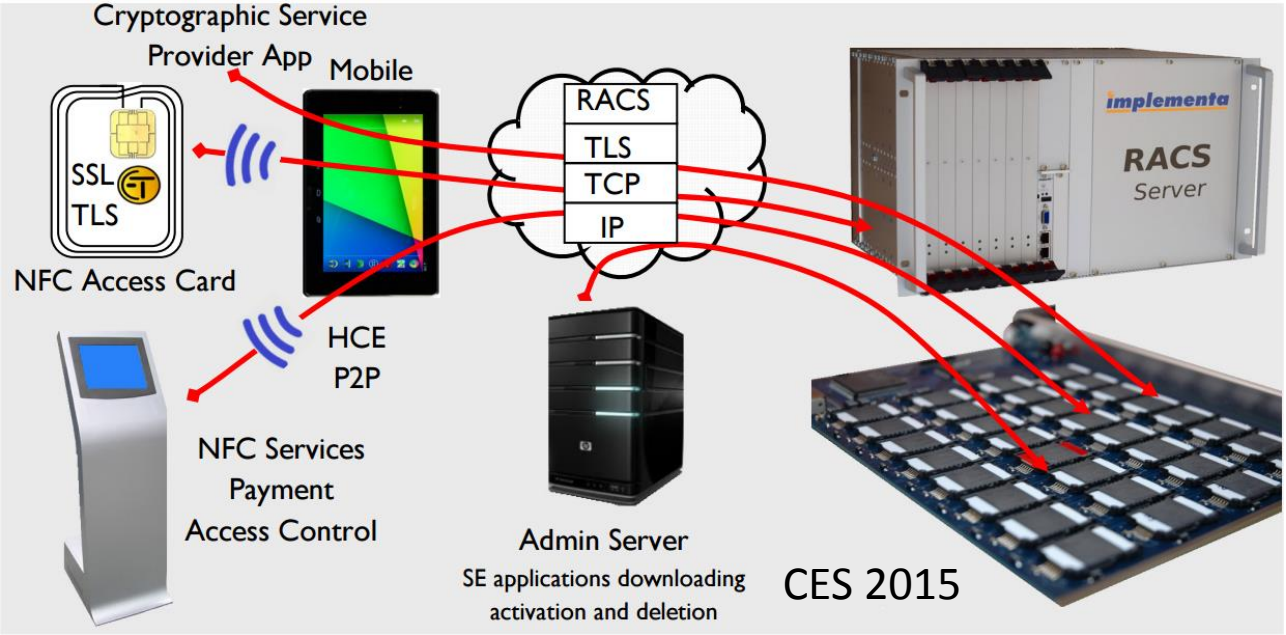
https://www.youtube.com/watch?v=imhrvYuoh4o



EtherTrust TLS/DTLS Security Middleware: Standard Based Technologies to secure IoT device communications

The *Liberate your Security!* Platform with Implementa

CES 2015
https://www.youtube.com/watch?v=m6HkILEm72w



EtherTrust "Liberate Your Security!" software platform facilitates the deployment and use of a Secure Element based infrastructure for such uses as securing online payment, remote access, cloud storage, and IoT.

To Providers of Payment Cards, Smart Card Authentication, and Cloud based HSM, EtherTrust patented "Liberate Your Security" platform offers:

-End to End Development Platform, with APIs for Secure Elements, POS Terminals, Devices, Server administration and life cycle management.

-Comprehensive support: EtherTrust supports most types of secure elements, devices (Android, Windows, POS terminals), and Windows and Linux Servers.

- Strong end-to-end security: Leverages Secure Elements and SSL/TLS protocol,eliminates risks associated with terminal vulnerabilities.

-Industry Standards Compliant: (GlobalPlatform, EMVco, HCE, SSL/TLS)

- Open: Server Management Middleware is OpenSource.

Ethertrust at the CES 2017 : TLS/DTLS and Secure Elements provide ultimate IoT Devices Security: A Secure Smart Plug Use Case