



PROJECT PROFILE

# Trusted security for sensitive applications

Ensuring protection from service provider to end user

*The goal of the €-CONFIDENTIAL project is to establish a safe and trustworthy security platform for multiple service applications to protect end users from the growing number of threats to be found in cyberspace. The platform would make use of commercial off-the-shelf (COTS) components and function with a wide range of common devices from personal computers to mobile phones.*

Today people are more and more connected and they want to have access to a large range of services through a wide choice of devices, such as personal computers (PCs), personal data assistants (PDAs) and mobile phones. This connectivity leads to citizens making ever greater use of the Internet, exploiting cyberspace for their day-to-day lives – for example to pay taxes, to manage their bank accounts or to make on-line purchases.

However, new security attacks are emerging that take advantage of cyberspace to extort money or compromise companies – the list

of possible threats is long. Current solutions to secure equipment and e-service applications are based on easy-to-use, plug-and-play software components. But these solutions only ensure protection on the application layer and often represent the weak link in the security chain as exposure increases to contamination resulting from the global Internet – such as viruses, malicious Trojan horse programs and techniques such as spoofing to gain unauthorised access to a computer, phishing to steal identities and rootkits that compromise system security.

**New approach required**

Such security limitations arise from the complexity involved in ensuring confidence and security at the level of the platform used. So these emerging threats require a new approach to provide a credible security chain for sensitive services. This security chain must include the application and the execution environment – operating system and hardware – to avoid a malicious and invisible corruption of an e-service.



€-CONFIDENTIAL (ITEA 05011)

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**Partners**

- ACOTEC
- Axalto
- Caixa Catalunya
- CEA LIST
- CRP-HT
- EADS DS
- EADS SN
- Ercom
- Italtel
- Mandriva
- Online Solutions
- OUSPG
- Robotiker
- SGI
- TBSolutions
- Trusted Logic
- Ubisecure
- University of Pompeu Fabra
- VTT

**Countries involved**

- Finland
- France
- Italy
- Luxembourg
- Spain

**Project start**

September 2006

**Project end**

December 2009

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The €-CONFIDENTIAL platform will make it possible to control and ensure safe execution of sensitive operations such as authentication, enciphering and personal data management for applications including e-voting and e-banking using security services. And it will be possible to function with common devices such as PCs, PDAs and mobile phones, hence fulfilling one of the requirements for the success of such services.

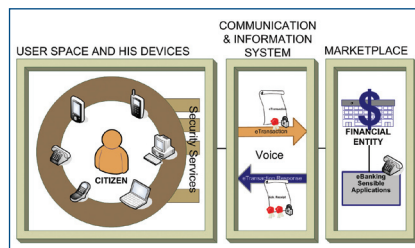
To ensure a successful market introduction, €-CONFIDENTIAL will define a flexible architecture that is easy to use and portable on various kinds of equipment available on the market as commercial off-the-shelf (COTS) components.

### Trustworthy security platform

€-CONFIDENTIAL will focus on providing a trustworthy security platform for consumer devices used in everyday life. This platform will:

- Be based on a plug-and-play concept through an easily portable, generic security architecture with different levels of security according to market needs and their related link to attacks costs.
- Rely on:
  - A secure execution environment to handle and treat all sensitive data; and
  - Development and deployment tools to check and establish security properties of the overall service environment on the device.
- Provide methods to evaluate and validate security assurance – certification and associated methodologies – to guarantee the targeted level of trust.

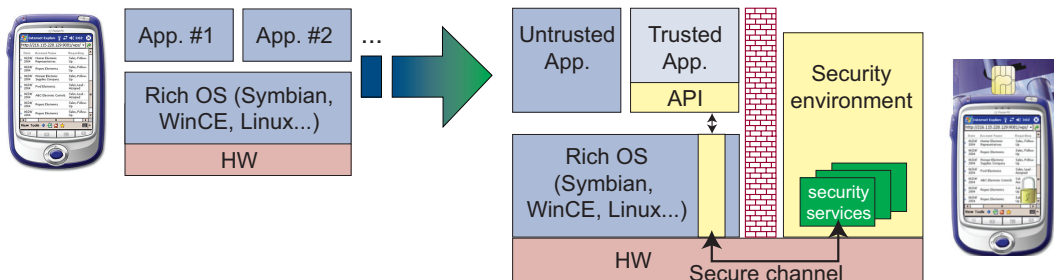
The assurance of end-to-end confidence through trustworthy security solutions from the service provider up to the end user represents an economic as well as social and strategic stake. The €-CONFIDENTIAL platform will be tested and validated through an e-banking application. The e-transaction services involve a Spanish bank, a services provider and citizens in a sphere where trust and security are mandatory.



### Personal and professional use

The €-CONFIDENTIAL platform will offer applications needing security services – such as secure storage, peripherals access control, cryptography and a safe execution space – on end-user devices for personal or professional uses. For these reasons, the project will mainly address the e-commerce market and the trustworthy terminal market.

However, project extension can easily be seen as the resulting solution will be generic at the architecture level to ensure portability on a large range of equipment – backbone equipment: router, servers, etc. – using similar operating system and hardware platforms. This will pave the way to trusted security on all critical elements of a service delivery chain.



From an unreliable to a trusted world

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