CELTIC
Telecommunication Solutions
www.celtic-initiative.org

FIDELITY
**Federated Identity Management based on LIBERTY**

Fidelity

In the FIDELITY project a consortium of leading European telcos, industry and research organisations will implement Circles of Trust (CoTs) in four sites according to Liberty specifications. The project will demonstrate the CoTs' interoperability, showing that local identity federations can interact at pan-European level, enabling exchange of identity and authentication of citizens between service and identity providers, whilst the usage and validity duration of identity data remains totally under the user's control and acceptance.

proof-of-concept of the viability and interoperability of digital identification and authentication, managed in a federated network and between different Circles of Trust (CoT) compliant with the Liberty Alliance specifications. FIDELITY will develop and evaluate technical solutions for the implementation of appropriate elements in the fixed network and in the smart card of the mobile network (SIM).
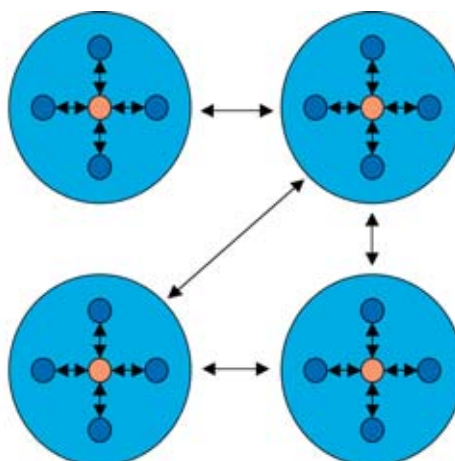
Project ID: CP2-013
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Axalto, France
Ericsson Spain, Spain
France Télécom R&D division, France
HiO (Oslo University College), Norway
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Project web site
www.celtic-initiative.org/projects/fidelity

Main focus

The FIDELITY project will implement a federated pan-European ID management system based on the Liberty concept. It will evaluate the system's technical viability, performance and capability to meet business, end-user, security and privacy requirements. The main focus of the project lies on customer identity provisioning and management for telecommunications (fixed and mobile) and Internet services. The overall objective is to provide a

Identity Provider
Circle Of Trust
Service Provider

Approach

Four federations of service providers organized in CoTs will demonstrate that users can carry out transactions in a secured way around one or several identity providers (IdP). The CoT demonstrations will involve telecom and Internet service providers as well as e-service companies; the latter will be involved through the advisory committee.

The CoT infrastructure will be set up by telcos in four European countries with the support of industry partners who will provide Liberty-compliant technology for the purpose of the project. The interoperability demonstration will cover interactions and exchanges of identification / authentication elements between different CoTs, forming a seamless environment for the end-user who will be able to control the use of his personal data. Security and privacy issues are considered key and will be thoroughly analysed with the help of a leading research institution in the information security domain.

To validate the technical and organisational aspects, the consortium will demonstrate the CoTs and their interoperability in service scenarios (fixed and mobile) to be selected at project start, such as the personal profile, enhanced with geo-location and terminal communication characteristics.

Main results

The main project results will be a proof-of-concept regarding the viability of a pan-European IDM federation solution based on the Liberty concept.

It will be provided in the form of a Liberty/FIDELITY-compliant test infrastructure with CoTs in four European countries, a practical demonstrations of e-services based scenarios running on this infrastructure and a detailed evaluation report with conclusions and recommendations.

FIDELITY will provide Interoperability and accessibility through different networks, in order to navigate freely between the CoT using identity federation and interoperability with respect to users' privacy. The exchange of user attributes between CoT and services with the user's permission will be a key point of the interoperability challenge as well as the ability to support several authentication mechanisms, from basic systems to highly secure ones like involving SIM card and/or PKI in the InterCoT context; access control based on different authentication levels.

Impact

Identity management and provision are expected to become a completely new activity with commercial and legal aspects. Large telcos are particularly suited to play an important role in this new domain, which will quickly expand through the development of e-commerce, web services and e-administration.

FIDELITY will contribute to pave the way to a pan-European ID management solution based on such basic concepts as single sign on, identity federation, distributed identity data, security level agreements and circles of trust ruled by commercial agreements. The validation of the Liberty specifications will increase and enhance the awareness of identity management activities seen in a global architecture framework. It will set the scene for a new user experience for e-services and e-commerce. The project results will be analysed and made available including recommendations and considerations for a totally new range of services particularly suited for telcos, acting on behalf of e-service providers, such as identity management, personal ID and attribute providers, identity/ attribute roaming in inter-CoT context, and the negotiation of user controlled security/data levels in electronic transactions.

About CELTIC

CELTIC is a European research and development programme designed to strengthen Europe's competitiveness in telecommunications through short and medium term collaborative R&D projects. CELTIC is the only European R&D programme fully dedicated to end-to-end telecommunication solutions.

Timeframe: 5 years, from 2004 to 2008

Cluster budget: in the range of 1 billion euro, shared between governments and private participants

Participants: small, medium and large companies from the telecommunications industry, universities, research institutes, and local authorities from 33 countries

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