“eEurope Smart Card Charter (eESC) – Background and Objectives”

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The IT (R)Evolution

- Mainframe
- Department Computer
- Personal Computer (Desktop)
- Personal Computer (Laptop)
- Palmtop
- Smartcard

1960s to 1990s
Internet: What’s that?

The User at home is connected via modem to his ISP.

The ISP connects him to the Internet.

The Internet is a set of Computers spread all over the world which are connected via physical or satellite lines.
The multifunctional work place: Multimedia

Interactive
Multitasking
Standards
Database

Access

One Way Cinema
Moving Pictures

© eEurope SmartCards
State of the Art in Microprocessors

GSM
Evolution of SIM card memory size

<table>
<thead>
<tr>
<th>Year</th>
<th>Memory Size</th>
<th>Phase</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>3 kB</td>
<td>1</td>
<td>Basic call features</td>
</tr>
<tr>
<td>1994</td>
<td>8 kB</td>
<td>2</td>
<td>Fixed dialing numbers, Last number dialed</td>
</tr>
<tr>
<td>1996</td>
<td>16 kB</td>
<td>2+</td>
<td>SIM application toolkit</td>
</tr>
<tr>
<td>1998</td>
<td>32 kB</td>
<td>2+ Java</td>
<td>Java applets on SIM</td>
</tr>
<tr>
<td>2000</td>
<td>32-64 kB</td>
<td>2+ Java SIM Browser</td>
<td>WAP Browser</td>
</tr>
</tbody>
</table>

UMTS
Multimedia
Full Computer
Smart Cards: The organizational Means of the 21st Century

European Information Structure

- Telecommunication Infrastructure
- Access Informations at any time from any place
- Electronic Data exchange
- European Elections
- Permanent Trading
- Social Security
- New Professional Figures
- Financial Information
- Teleworking
- Common Information Area

Citizens
Enterprises
Public Authorities
Where are we coming from?
Smart Card Concepts and Associations

... and many more
Proprietary Systems

Geldkarte
Chipper
VisaCash
CEN WG 10

Sesame Vitale
Gesundheitskarte

Paris
Hongkong
San Francisco

... and more
Is this an Industry?

„Should I invest“?
What are the characteristics of a mature smart card industry?

- Growing Acceptance of the Product
- Growing Market Potential
- Security of Investment for Issuers
- Equal Opportunity of the Players
- Better Competition
- Decreasing Development Costs

... and more through:

STANDARDIZATION / HARMONISATION
Towards an interoperable Platform

Open interoperable Platform
Changing the procedures and organisation
“An Information Society for all”

**eEurope Objectives**

- Bring every citizen, school, business and administration on-line - quickly!
- Create a digitally literate and entrepreneurial Europe
- Ensure an inclusive information society
A cheaper, faster, secure Internet

1) Cheaper and faster Internet access
2) Faster Internet for researchers and students
3) Secure networks and smart cards

Investing in people and skills

4) European youth into the digital age
5) Working in the knowledge-based economy
6) Participation for all in the knowledge-based economy

Stimulate the use of the Internet

7) Accelerating e-commerce
8) Government online: electronic access to public services
9) Health online
10) European digital content for global networks
11) Intelligent transport systems.

1960s
Empower the **individual** to **access resources** in the physical world and over networks, anytime, anywhere with adequate privacy and security.

Raise the prospect of smart card technology to a **mainstream** computing platform for **trust services** by

- **Harmonizing** smart card based infrastructures across sectors by building a consensus for minimum **compatibility**.
- Stimulating inter-sector cooperation to encourage **interoperability**
eESC Key principles

- Open to all interested parties (incl. non-EU players)
  - User-centric (consumer and professional)
  - Industry-led / respecting competitive forces
  - Public sector involved mainly as a lead user for certain applications (e.g. transport, e-government)
- Focus on secure access to Internet-based services
- Rely on European strengths (banking, health card,...)
The Smart Card Charter identified 4 target action areas:

- Building trust
- Enhancing usability
- Improving access
- Deploying applications & services
Building Trust

- Set of minimum security requirements
- Harmonised security certification
- Interoperable specifications for identification and authentication
- Liberalisation of trade and use of cryptographic products and services
- Fair cost conditions when using smart card
- Protection and use of personal data
Enhancing Usability

- Consistency of interfaces and operation
- Coherent use of contact and contactless cards
- Seamless use of multi-application cards and terminals
Improving Access

- Broaden service access: geographically and across sectors
- Easy access to Internet
- Permanent dialogue telecoms/service providers to avoid fragmentation of mobile commerce
- Reliable and efficient smart card based e-payments and best use of existing infrastructure
Deploying Applications & Services

- Foster development of government applications (government on-line)
- Common requirements for major public services starting up with Public Transport and Health
- Exchange of experience regarding electronic identification (e.g. Finland, Italy, Sweden)
European Commission proposes eEurope 8.12.1999

Smart Card Summit Lisbon 11.4.2000

First Follow-up Meeting Athens 18-19.9.00

Working meetings Autumn 2000

Open Steering Committee meeting December 2000

Working on Solutions 2001 - 2002

Smart Card Charter

Trailblazers & Working Groups

Common Requirements

Task Force

Solutions
eESC deliverables

- Smart Card Charter Common Requirements (established December 2000)
- Common Specifications (end 2002 deliverable)
  - Surveys, Reports, White papers
  - Contribution to standards
  - Implementation guidelines
  - Dissemination activities
  - Pilot project(s)
  - other ...
1 Public Identity
2 Identification & Authentication
3 Protection Profiles, security certification
4 Generalized card reader
5 e-payments (including purse, credit/debit, m-commerce)
6 Contactless Smart Cards
7 Multi-application systems
8 User requirements
9 Public Transport
10 e-Government
11 Health
12 Advanced Electronic Signature
eEPOCH
eESC Logical structure

TB8

USER/REQS

TB10
GOVERNMENT

TB5
PAYMENTS

TB11
HEALTH

TB9
PUBLIC TRANSPORT

TB3

SECURITY/PP

TB1, TB2, TB12
GENERIC FUNCTIONS

TB7
MULTI APPLICATION PLATFORM

TB4
GENERIC CARD READERS

TB6
CONTACTLESS CARDS

GIF
GLOBAL INTEROPERABILITY FRAMEWORK

APPLICATIONS
Objectives

- plan for a common European Citizen Digital ID Document.

Deliverables

- 1: Inventory of legislation and practice regarding identities
- 2: Common specifications for public identity and identification
- 3: Guidelines for citizen certificates
- 4: Selection of pilot projects
- 5: Report providing a consolidation of the overall results
TB 2: Identification and Authentication

Objectives

- Co-ordinate with other Trailblazers to identify the functional requirements related to each individual Trailblazer
- respond to such functional requirements
- identify technology requirements and a methodology for the scope areas of other Trailblazers

Deliverables

- 1: inventory of existing smart card based PKI implementations with priority to Public Identity
- 2: definition of a common platform for functional interoperability
- 3: provide technology guidance in response to TB1 requirements
- 4: accommodate additional requirements from other trailblazers (in relation to Deliverable 2) on first come, first served basis.
TB 3: Protection Profiles, Security certification

Objectives

- promote and facilitate the adoption of the Common Criteria (CC) - ISO/IEC 15408 standard through the Smart Card Industry for the evaluation and the certification of products and systems, to provide trust and confidence to the smart card users

Deliverables

- 1: List of current issues in using Common Criteria
- 2: Proposal of possible solutions
- 3: Proof of concept
- 4: Promotion and education around Common Criteria
  - Establish a communication and education plan
  - Implementation of promotion and education
Objectives

- to propose an architecture and a set of technical specifications for a secure IC card reader to be used in e-commerce and related IC card based applications on open networks

Deliverables

- 1: Detailed work plan
- 2: Business requirements
- 3: Functional architecture and technical requirements
- 4: Functional security specifications
- 5: Protection profile
- 6: Technical architecture and APIs
- 7: Virtual machine
- 8: Exploitation plan
Objectives
- enable broad adoption of smart cards as a means of secure payment, and ensure interoperability across channels, sectors and borders

Deliverables
- 1: EMV migration synchronization and Open Networks
- 2: eEuro implementation and Continental Roll out
- 3: Report on e- and m-payments convergence
TB 6: Contactless Smart Cards

Objectives

- to promote the use of contactless smart card technology by creating an Industrial Offer matching the End User needs

Deliverables

1: Technical foundations: interoperability, security, certification
2: Educational and promotional efforts
3: Market development of contactless technology: roadmap for trials and deployment towards operators
4: Definition of a common platform, roadmap for interoperability
5: Pilots, Interoperability demonstrator, Final reports/guidelines, Catalogue
TB 7: Multi-Application Systems

Objectives

- to enlarge Citizen’s freedom of choice in the selection and management of the ICT services they wish to access using smart cards as the generic access token

Deliverables

- 1: The provision of input to standardisation
  - new requirements for extension
  - the need for new topics to be addressed
- 2: Implementors’ work book / toolbox
  - to enable open & interoperable systems
  - common framework business model
  - generic trusted architecture for secure management and operation
  - methodology for the development of portable smart card applications
- 3: Possible input for the enactment of supporting legislation
TB 8: User Requirements

Objectives

It is a specific objective of this Trailblazer to interact with all other Trailblazers to provide them with user requirements input.

- to ensure that the user interface and functionality of ICT systems employing smart card technology meet already identified requirements
- to support Citizen aspirations, to provide systems that are attractive to Citizens
- to guarantee inclusiveness for all categories of Citizen.

Deliverables

- 1: Work book best practice guide supporting Citizen access
- 2: User requirements specification
- 3: Overview of new technology – new interface issues
- 4: Input to CEN TC224 WG6, and to ETSI TC HF
TB 9: Public Transport

Objectives

- support Public Transport utilising smart card access tokens, including the need for interoperability between smart card based European transport ticketing systems

Deliverables

- 1: Creation of a best Practice Guide based on the results of operational trials between cities and public transport operators demonstrating practical results of the application of interoperability
- 2: A methodology for the specification of smart card based ticketing systems based on common sector requirements
- 3: A work book/toolbox for use by implementors
- 4: Modules of information (including methods, structures, roles, entities, finance models etc); of relevant legislation; and of system components (hardware/software)
TB 10: e-Government

Objectives
- achieve definition, rationalisation and implementation of a European model for digitally performed procedures employing smart card for interfacing with Public Administration
- promote more effective use of government's information resources
- give access to public services and simplify online administrative procedures that use secure smart card solutions based on standards such as electronic signature, PKI infrastructure and internet.

Deliverables
- 1: Coordinate the necessary constituency
- 2: Collect national initiatives and feasibility studies on B to A, C to A and trans-national exchange of data e-government applications
- 3: Organise relationships with other trailblazers
- 4: Common policy and architecture for functional interoperability and standardisation process for B to A and e-procurement
- 5: Dissemination of findings and results
TB 11: Health

Objectives
- contribute to a European wide interoperability of healthcare cards concerning patient data as well as to health professional cards and to their usage in networks, addressing administrative data as well as healthcare/health related data and different functionalities, e.g. ID-card, signature card and health card

Deliverables
- 1: Consensus building activities (e.g. Workshops to identified scenarios or solutions, Promotion activities like Conferences and Web sites; Better involvement of key groups)
- 2: Recommendations and white papers (e.g. benefit and synergy between cards and IT networks; useful applications; requirements and functionalities)
- 3: Demonstrators and pilots
TB 12: Advanced Electronic Signature

Objectives

- to provide European Citizens with Advanced Electronic Signature use, as per the European Directive, through a Smartcard based system for Internet.

Deliverables

1: identify and review architectures of existing projects
2: confirm target markets
3: identify elements and technologies required
4: proof of concept and validation of systems architecture
5: identify project stake holders (users, service providers, Consortium to build)
6: Implementation and deployment of system
Organisation

High Level Group

Steering Committee

(working group chair persons plus relevant group representatives)

Secretariat

Trailblazers
Steering Committee Members

Jan van Arkel (Co-Chair)  arkel@cardlife.nl
Lutz Martiny (Co-Chair)  lutz@martiny.org
Henry J F Ryan (Secretary)  henryryan@eircom.net
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Hubert Jacquet, Chair TB 4  hubert-jacquet@cartes-bancaires.com
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Stefan Kissinger, Chair TB 9  stefan.kissinger@bvg.de
Frédéric Tatout, Co-Convenor TB10  frederic.tatout@industrie.gouv.fr
David Ankri, Co-Convenor TB 10  david.ankri@wanadoo.fr
Jürgen Sembritzki, Chair TB 11  j.sembritzki@ztg-nrw.de
David Stephenson, Chair TB 12  david.stephenson@cyber-comm.com
Yves Chauvel, Telecommunications  yves.chauvel@etsi.fr
Kristina Unverricht, Consumers  kristina.unverricht@din.de
Senior Leaders (Presidents, CEOs, Board Members) **nominated and invited by the European Commission** from Industry and Administrations

- to receive reports from the Steering Committee, discuss the work in progress with the Steering Committee, and finally report to and discuss necessary actions with the European Council
- also the High Level Group may act in case of conflicts between different groups of interest in or between trailblazers which the Steering Committee cannot resolve by itself
Secretarial Support

- Arrangements for Steering Committee and Open Public Meetings, including agreement of Agenda with the Chairmen
- Distribution of Technical Contributions from Working Groups, and management of mailing lists.
- Website
- High Level Group

Secretariat duties are shared among CEN, ETSI and EUROSMART
On-going Information

- http://eeurope-smartcards.org
- info@eeurope-smartcards.org
- lutz@martiny.org or arkel@cardlife.nl
The Smart Card Symphony “Allegory”