BUSINESS PLAN

CEN/TC 224

PERSONAL IDENTIFICATION AND RELATED PERSONAL DEVICES WITH SECURE ELEMENT, SYSTEMS, OPERATIONS AND PRIVACY IN A MULTI-SECTORIAL ENVIRONMENT

EXECUTIVE SUMMARY

Multi-sectorial ICT committee focused on interoperability, security and privacy of Personal Identification and its related personal devices with secure elements, systems and operations. Supportive Identification, Authentication and Signature (IAS) functions for eBusiness and eGovernment trust services. Interoperability of biometric recorded data. Interoperability and security of payments by card, internet and mobile device.

Business Environment

- Digital economy, dematerialised services and associated secure technologies is a growth area for Europe;
- Europe offers the highest protection of citizens and consumers in their fundamental rights related to their identity and the protection of their personal data;
- Europe is the leader of the world market for digital secure technologies such as integrated circuit cards and other related smart secure devices (i.e. a personal device with a secure element);
- Sound basis for the development of numerous trusted applications based on personal identification (banking, payment, telecommunications, healthcare, transport, pay TV, retail shopping, access control, e-Government…) and for trust in electronic transactions;
- Parties involved:

Demand side	Supply side
- Operators of the various application sectors; - Pubic and government authorities; - Consumers.	- Manufacturer of cards, secure elements and related devices; - Provider of security related devices (cryptographic modules), system components and services related to personal identification; - Conformity assessment bodies; - Software manufacturers.

Benefits

- Enhanced interoperability and security of personal identification related services, especially in the framework of the Digital Agenda for Europe;

- Reinforce harmonisation of personal identification related services through Europe;
- Reinforce the confidence of consumers in respect of security, quality, ergonomics and data privacy,
- Strengthen the position of the supply side for non European markets;

Priorities

- Electronic Identification and related security services such as authentication, confidentiality;
- Personal Identification based operations such as electronic signatures, payments, charging, access and border control;
- Protection of personal and sensitive data;
- Biometrics for European specific requirements;
- Accessibility of systems for personal identification services, especially when used with cards or other personal secure devices

1 BUSINESS ENVIRONMENT OF THE CEN/TC

CEN/TC 224 was created in 1989 in accordance with a mandate from the European Union and EFTA. The first programme of work was established in 1990 (approved by CEN/BT Resolution 62 in 1991) on the basis of a series of order vouchers from the European Commission (BC-IT-143 / 189 / 190 / 191 / 192 / 193 / 194 / 195 / 198 / 199 / 200 / 201 / 202).

Further to the transfert of CEN/ISSS eSIGN WorkShop part of work (approved CEN/BT resolution 51 in 2004), the scope has been extended to electronic signatures.

CEN/TC224 offers a multi-sectorial environment and produces standards to be used:

- by a specific sector such as government (e.g. biometrics for border crossing), Transport, Banking, e- Health;
- by several sectors (e.g. electronic signatures, payments), in such a case the term inter-sectorial applies;
- by all sectors (e.g. user interface and accessibility), in such a case the term cross-sectorial applies.

The adoption of the Regulation EU 1025/2012 on European standardisation recognises the important role of the Multi Stakeholders Platform on ICT Standardisation. The Rolling Plan on ICT Standardisation is particularly relevant for CEN/TC224 as it provides a multi-annual overview of the needs for preliminary or complementary ICT standardisation activities to undertake in support of the EU policy activities.

The following international and European standardisation committees are relevant for CEN/TC 224:

- ISO/IEC JTC 1/SC 17 "Cards and personal identification";
- ISO/IEC JTC 1/SC 27 « IT Security techniques »;
- ISO/IEC JTC1/SC37 « Biometrics »;
- ISO/TC 68/SC 7 « Core Banking »;
- CEN/TC 251 "Health informatics", for healthcare applications;
- CEN/TC 278 "Road transport and traffic telematics", for surface transport applications;
- CEN/TC225 "AIDC technologies"
- ETSI Electronic Signature Infrastructure Committee

Some European projects are relevant for CEN/TC224 such as:

- Fidelity
- Future ID
- Stork

The following European legislations or policy initiatives are relevant for CEN/TC224:

- Regulation 910/2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC on electronic signatures
- Directive 1995/46/EC on data protection and Regulation proposal on general data protection
- Directive 58/2002/EC on processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications) and its amendment 2009/136/EC
- A series of other texts related to the processing of personal data: Regulation (EC) 45/2001, Commission Decisions 2001/497/EC, 2002/16/EC and 2004/915/EC, Directive 2006/24/EC and communications COM(2007) 228 final, COM(2007) 87 final, COM(2012) 10 final

2012/0010 (COD)

- Regulation 2252/2004 on Standards for security features and biometrics in passports and travel documents issued by Member State completed by the other related documents COM(2007)0619, C6- 0359/2007 and 2007/0216(COD)
- Directive 2007/64/EC on payment services as well as the proposal of revision. The Green Paper of the European Commission "Towards an integrated European market for card, internet and mobile payments" and the Euro Retail Payment Board launches by the European Central Bank is a framework for CEN/TC224 for further standardisation activities
- The White Paper of the European Commission defining a roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system (2011).

1.1 Description of the Business Environment

The following political, economic, technical, regulatory, legal, societal and/or international dynamics describe the business environment of the industry sector, products, materials, disciplines or practices related to the scope of this CEN/TC, and they may significantly influence how the relevant standards development processes are conducted and the content of the resulting standards:

- **Economical factors**
  - Europe has a very significant position in the international market of cards and other smart secure devices and plays an important role in related innovations.
  - The development of electronic transactions to conduct business is an important key for the growth of the European economy and the reinforcement of security and privacy will increase trust for users of online services
  - The use of the EURO currency reinforces the need to harmonise payment related transactions.
  - European governments will need to reinforce the electronic identification of European citizen and associated trust services for electronic transactions.
- **Social factors**
  All citizens and consumers are concerned by the use of their identity and personal data and cards and other smart secure devices used for either face-to-face or online services are solutions for providing such protection. Their confidence in these systems (including security, quality, ergonomical and privacy aspects) is an important key factor for a successful development and integration. The increased mobility of European citizens through the EU requires cross border interoperability of these systems.
- **Technical factors**
  - New technologies such as contactless and NFC have enhanced the functionalities of cards and other smart secure devices.
  - Fast mobile evolving technologies have increased the way users interact with their service providers.
  - Security of the mobile environment is a key technical factor for the digital economy.
  - Grouping of companies and alliances between the operators of different sectors could occur in liaison with the development of multi-application solutions.
- **Legal factors**
  Numerous national or European regulations exist in relation with the work of CEN/TC224 such as electronic identification, data protection, identity card, electronic ticketing, Schengen Visa and passport, electronic signature, payment. The project of regulation on electronic identification and trust services for electronic transactions will be a powerfull legal instrument for the promotion of the digital economy in the internal market.

- **International trade and standardisation aspects**
  Market requirements for standardisation are mainly international even if some specific European requirements exist or some applications that are dependent on legal national or European framework(s). Through standardisation, EU funded projects can also benefit from a better dissemination of their research results.

1.2 Quantitative Indicators of the Business Environment

The following list of quantitative indicators describes the business environment in order to provide adequate information to support actions of the CEN /TC:

- **An international market.**
- **A very significant position of Europe in this international market,** in particular considering the implementation of cards and other related smart secure devices, with international industry leaders. The worldwide number of these microcontroller based devices is 7.1 billion units in 2013 and is expected to be over 7.7 billion units in 2014 *(source: Eurosmart).*
- **The co-existence of various formats, physical characteristics and card technologies**
  - Several types of rigid or flexible supports, made of different materials such as plastics or papers or composite materials, are used.
  - Several recording technologies are used on cards, corresponding to different levels of performance and security: printing, embossing, magnetic stripes, integrated circuits with contacts or without contacts, optical memory.
  - Contactless and NFC technology for mobile devices.
  - Those technologies continuously are enhanced and some of them can co-exist on a single card.
  - The development of biometrics for personal authentication.
- **A number of application sectors**
  Cards and other smart secure devices are used world-wide in a number of sectors, such as:
  - banking ;
  - payment;
  - telecommunications (GSM, pay phones, ...) ;
  - healthcare ;
  - transport (airlines, public transport, road tolling, railways,...) ;
  - pay TV ;
  - retail shopping ;
  - access control ;
  - identification card supporting electronic signature ;
  - e-Government;
  - etc.
- **A mass market**
  Any individual is a potential user of one or several cards and other smart secure devices. Amongst the 7,140 millions of these microcontroller based devices, the figures for the main sectors are shown below (source: Eurosmart):

Telecom: 4,850
Financial services: 1,550
Government: 350
Others (Transport, PayTV, Access cards...): 390

2 BENEFITS EXPECTED FROM THE WORK OF THE CEN/TC

An important increase of the activity in the card and other smart secure devices domain is expected in the next few years for the following reasons, which will reinforce the need for standardisation:

- **Development of online services for eGovernement and eBusiness**

Cards and other smart secure devices are the most appropriate solution for customers to access in a secure way new services to be offered by Administrations and Businesses. New requirements for interoperability should be identified. Mobile devices are an opportunity for the dematerialisation and the development of remote services.

- **Development of the use of SE in already impacted sectors and in new sectors**
- **Developement of biometrics in travel and other governmental documents**
- **Development of multi-application environments**

In addition to applications specific to one sector (e.g. banking, transport, , government ...) a particular attention should be paid to multi-application environment. New technical, architectural and service related requirements should be identified.

- **Development of the contactless and NFC technologies**

Activity sectors with specific needs are widely using the contactless technology (e.g. Public transport, road tolling, passeports, payments). Other sectors such as financial services are implementing this technology to their SE. Moreover, thanks to the contactless and NFC technologies mobile devices may now be used for face-to-face transactions.

In the case of air interface, there is no need of physical form factor dimensions that allows a form factor flexibility more and more requested from new applications (epassport, low cost ticket, driving license…).

3 PARTICIPATION IN THE CEN/TC

All the CEN national members are entitled to nominate delegates to CEN Technical Committees and experts to Working Groups, ensuring a balance of all interested parties. Participation as observers of recognized European or international organizations is also possible under certain conditions. To participate in the activities of this CEN/TC, please contact the national standards organization in your country.

All parties involved in the development, production of systems and infrastructures are represented:

- industry of cards and other smart secure devices (including components and cards manufacturers, personalisators as well as security service providers);
- experts in security and cryptography, and providers of cryptographic modules
- operators of the various application sectors ;
- public authorities
- conformity assessment bodies
- software manufacturers
- consumers.

CEN/TC 224 has established liaisons with the following European and International organisations:

- FRONTEX;
- GlobalPlatform;

- Union Internationale des Chemins de Fer (UIC)

Future projects under the CEN/TC 224 programme of work may require the establishment of new liaisons as far as necessary.

ANEC, as a CEN Partner Organisation, plays an important role in CEN/TC224 by ensuring standards drafted by the Committee fulfill the consumer expectations.

4 OBJECTIVES OF THE CEN/TC AND STRATEGIES FOR THEIR ACHIEVEMENT

4.1 Defined objectives of the CEN/TC

The base objectives are:

- to define the necessary tools (standards) to be used to perform the desired level of commercial interoperability, security and data privacy for machine readable cards, related device interfaces and operations in Europe.
- to maintain and develop standards for Identification, Authentication and Signature (IAS) and services for eGouvernment and eBusiness.

As a matter of principle, CEN/TC 224 does not duplicate the work of ISO/IEC JTC 1/ SC 17, ISO/IEC JTC1/SC37 or ISO/TC 68 /SC 7 but, either transposes some of the related International Standards or uses them as the basis for specific European works. In a number of cases the ultimate objective of the work of CEN/TC 224 is to contribute to the international standardisation.

The current objectives of CEN/TC 224 are to elaborate or maintain standards on:

- **Identification, Authentication and Signature (IAS) services based on smart secure devices;**
- **Biometrics for the need of European travel or governmental documents;**
- **General card characteristics and technologies**
  parallel development of ENs and of the revised versions of international standards regarding the development of driver licence and other e-Governments applications ;
- **Man machine interface**
  design principles for the user interface, key pads, coding of user requirements for people with special needs, physical accessibility to card reading devices;
- **Surface transport applications**
  Application framework and data elements for the various types of surface transport applications (e.g. public transport, road tolling, ,...),
- **Inter-sector electronic purse**
  definitions, concepts and structures, security architecture, data elements and interchanges, data objects;
- **Health sector cards**

Additional objectives of CEN/TC 224 are to consider the requirements for further standardisation in the following areas:

- Additional devices under the control of the SE (new embedded input/output devices on-board the card including electronic display, capacitive or resistive keypad, button, biosensor, power supply device, etc…) leading to new relevant use cases,

- Privacy Impact Assessment (PIA): requirement for an evaluation model of privacy-by-design card-based products and/or services

- Privacy by design and convergence platform: starting the design with privacy requirements at the project outset and capitalizing on a common platform ground fulfilling a minimum requirement set for privacy supporting a diversity of applications on top of it.

Interoperability and security of payments by card, Internet and mobile devices

4.2 Identified strategies to achieve the CEN/TC.s defined objectives.

The identified strategies to achieve CEN/TC224 objectives are:

- Focus on issues arising from mandate M460 and standards needed for the secondary legislation related to Regulation 910/2014;

- Maintain close relationships with regulatory bodies in order standards drafted by the Committee address their expectations in the right way;

- Maintain close relationships with other CEN committees or groups having an interest in standards produced by CEN/TC224, in order their requirements be included into the standards;

- Liaise with international standard committees and other global standardisation bodies in order to (1) ensure a synergy and not overlapping or redundant work (2) ensure that European interests are carefully considered in developing international standards (3) use global technical standardised "tools" for the drafting of CEN standards;

- Promote and publicize standardisation activities to interested audiences (organizations, projects...);

- Encourage cooperation between CEN/TC224 working groups in order to enable mobility of skills and to better address the complexity of the technical and regulatory environments of the Committee.

4.3 Environmental aspects

Most of the standards produced by CEN/TC224 are related to ICT functionalities in the area of personal identification, electronic signature and services provided by cards or other smart secure devices. These standards facilitate the dematerialization of transactions and induce gains in the consumption of natural resources. Examples are very numerous: the European Citizen Card allows a secure access to online governmental services reducing greenhouse gases; electronic signatures reduce the use of paper; contactless and NFC technologies simplify the access to public transport and encourage the use of such means of transport with respect to individual cars; payment cards enable the reduction of cheques and paper; Internet payment offers consumers the possibility of remote shopping and thus to limit the use of their car; etc…

CEN/TC224 will continue to monitor the changes of practices implemented by parties involved in the area of the committee as well as applicable regulations. This permanent monitoring will allow to guide CEN/TC224 in its decision to initiate a new work item in relation with environmental issues.

The ICMA (International Card Manufacturers Association) published sets of requirements related to environmental aspects as general recommandations which should be considered in TC224.

5 FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE CEN/TC WORK PROGRAMME

The general 'risk analysis' below highlights issues that may delay or stop the CEN/TC achieving its set objectives :

- Decreasing availability of experts which would create delays in progressing the work or block the projects, resulting in a speed of standardisation not always adapted to market needs;
- Development of specifications in various types of forums, in parallel with the business developments. These specifications are produced in much less time than in CEN, but are not standards resulting from an open consensus mechanism.