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Interoperability Conference

Warsaw 6 - 7 February 2008



Radio Frequency Identification Devices

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Information & Communications Technologies

Theme 3 - Presentations

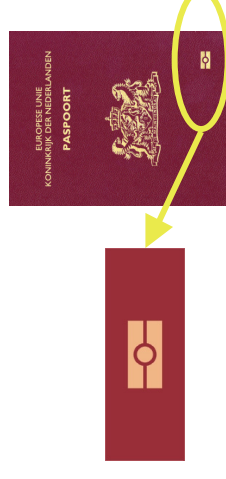
- **RFID Standards in Action**
Henri BARTHEL (GS1 Global Office)
- **The Electronic Passport**
Henk DANNENBERG (NXP Semiconductors)
- **RFID Networks**
Patrick Guillemin (ETSI)
- **RFID Standardization Activities in USA**
Ajit JILLAVENKATESA (US NIST)

RFID Standards in Action

- RFID adoption is growing dramatically
- Synergy between ...
 - End User driven initiative 
 - Formal standard body 
 - EU funded R&D project 
- ... works and brings benefits ...
- Because the developments are based on Interoperable Global Standards

Summary Electronic Passport

- Development process showed key role for Standardization Development Organizations
- Collaborative effort by many participants (both regulatory bodies and industry)
- Became success because one organization took the lead (and gained support from end-users)
- Build new structure on top of existing standards (ICAO MRTD 9303, ISO/IEC 14443 & 7816, etc.)
- Yielded Globally Interoperable ePassport, implemented and in use by many countries
- Proof of tremendous success of collaborative standardization efforts!!



RFID Networks

- Participation in EU RFID initiatives (GRIFS, CASAGRAS, CuteLOOP, ...)
- EU Harmonised standards for compliance to R&TTE Directive
- EU Spectrum Harmonisation
- RFID Plugtests for interoperability testing;
Next event 2-5 June, 2008:
 - tags and readers from various different vendors
 - different environments (portals, conveyors, ...)

RFID Standardization in USA

- NIST has 1200 employees (400 standards experts)
- RFID security Recommendations
- Research and proof of concepts for single RFID tag used in different applications by (government) agencies
 - Supply Chain tracking
 - Asset visibility and management
 - security and access control
 - Process management and improvements
- National Technology and Transfer Advancements Act - participate and transfer knowledge to standards bodies to:
 - promote efficiency and economic competition
 - eliminate cost of potentially different (government) standards
 - decrease burden on regulated communities



GRIIFS

The Global RFID Standards forum



GRIFS summary

- EU Framework Programme 7 funded support action
- Duration: January 2008 to December 2009 (2 years)
- Members: GS1 (Coordinator), ETSI, CEN
- Scope: RFID standards for physical items, supply chains
- Objectives:
 - Document standards activities globally
 - Establish liaisons with on-going projects and Standard bodies
 - Establish a global forum for RFID Standards

GRIFS

The Global RFID Standards forum

www.grifs-project.eu



GRIFS Deliverables

- Global standards – Situation analysis
- Public workshop in Brussels, June 2008
- Liaisons with European projects and active role in CERP, the Cluster of European RFID Projects
- Workshops in Europe, Asia and US from July 2008 to February 2009
- Effective launch and operation of an MoU between key stakeholders as of May 2009

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Conclusions and Findings:

Main messages

- Global collaboration is needed to be set up now; otherwise there is a high risk of divergence (too many people doing too many things)
 - global workshops in Europe, Asia, Americas (e.g. for GRIFS)
- Need to balance “public good” vs. “industry solution”:
 - global “regulation” on security, tracking data, naming/numbering
 - role of regulation; IPR costs; harmonised spectrum; SDO standards
 - e-Passport was driven by governments based on existing standards
 - Common standards for private sector and Government applications (e.g. logistics management vs. tracking dangerous material container)
- Need to address interoperability issues for all applications at every stage of standards development
- ETSI launched “INTEROPOLIS” to specifically address interoperability
- Interoperability has to be balanced with cost and other competing issues
- Need to address interoperability issues for all applications to avoid fragmentation at global level and/or trade barriers

Conclusions and Findings:

Going forward

- **Interoperability principles document?**
- **Develop realistic set of requirements, validated by end-users (ensure that there is a market for it)**
- **Look for one “SDO” that has the support from the industry and is willing and able to take ownership for the development process**
- **Gather team of specialists from regulatory bodies and industry**
- **Try to build on top of existing standards that are in use in the industry**
- **Create challenging but realistic development schedule**
- **Execute the project according to the schedule and stick to it!**

Possible example projects:

- **RFID Security and Privacy standards for consumer application**
- **RFID Security and Privacy standards for ePassport application**

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Thanks to all: Speakers & lively audience!

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