eSecurity Working Group of the eSafety Forum

Security and Privacy issues related to the use of cooperative automotive systems

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Agenda

• Embedding of eSecurity in i2010
• eSecurity Working Group
• Expected Outcome of the WG
• Timetable of the eSecurity WG
• Conclusions
European Strategy of Automotive Security

• In Europe (of 27) in 2005
  – 1.3 million accidents happened
  – 1.7 million people were severely injured
  – 41 000 people were killed

• Action: Intelligent Car Initiative (ICI)
  – ICI is part of the i2010 Strategy
  – Goal: Halving the number of killed people till 2010
  – Three main actions of ICI
    • eSafety Forum
    • Create awareness of ICT based transport solutions
    • ICT based research and development for smarter, safer and cleaner mobility
eSafety Forum Working Groups

Steering Committee
Chairs: A. Vits – EC
H. Meyer – ERTICO - ITS Europe
I. Hodac – ACEA

Implementation Road Maps WG
Chair: H-J Mäurer, DEKRA
R. Kulmala, VTT

Research and Development WG
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International Cooperation WG
Chairs: E. Sampson, ITS United Kingdom
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ICT for Clean Mobility WG
Chairs: P. Kompfner, ERTICO - ITS Europe
W. Reinhardt, ACEA

Service-Oriented Architectures WG
Chairs: M. Vieroth, T-Systems
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Chairs: C. Ruland, Univ. of Siegen
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Accident Causation Analysis WG
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Digital Maps WG
Chairs: A. Bastiaansen, ROAD Group Holding
Y. Moisidis, Navteq

Heavy Duty Vehicles WG
Chair: J. Trost, DaimlerChrysler

Communications WG
Chair: U. Daniel on behalf of Robert Bosch GmbH

eCall DG
Chair: W. Reinhardt, ACEA

User Outreach WG
Chair: J. Grill, ADAC

Real-Time Traffic and Travel Information WG
Chair: H. Friedrichs, Robert Bosch GmbH
Terms of Reference

- Investigate security needs, that address the vulnerability of Road Transport caused by misuse of networked and cooperative systems
- Integrate existing and emerging RTD initiatives to
  - Provide a communication platform of all major stakeholders
  - Support the introduction of security technologies in parallel to the progress of the technology infrastructure
  - Ensure compatibility to legal and certification aspects
- Provide qualified recommendations regarding
  - Research, Technology and Development requirements
  - Standardisation needs for implementation
  - Legal provisions
Participants

• More than 40 participants from
  – Industry stakeholders (OEMs and suppliers)
  – Public authorities
    • Participation of OEMs and public authorities is critical to discuss
    • Organisational requirements
    • Measures for quality assurance and responsibilities
  – Network operators and service providers
  – Researchers
Topics of the eSecurity WG

• In-Vehicle ICT Systems
  – Increased number of electronics and software
  – Risks: Manipulation, misuse, unauthorized access…

• Vehicle to Vehicle Communication
  – Better and faster traffic information between vehicles
  – Risks: Falsified messages, location tracking…

• Vehicle to Infrastructure Communication
  – Telematics services, entertainment download, services based on position tracking, eCall
  – Risks: Faked RTTI and routing information, fraudulent telematics services, manipulated software, privacy violation

• Privacy (article 28)
Scope of Analysis

• Prerequisites
  – Inspections
  – Legal constraints
  – Long Term Development
  – Supplier Independency
• Compatibility to Security Standards
• Security Analysis
Requirements

• Security requirements
• Organisational requirements
• Measures for quality assurance and responsibilities
• Legal requirements
• Research requirements
• Mechanisms to maintain eSecurity measures
Expected Outcome

• Document containing
  – State of the Art
  – Analysis
  – Recommendations for actions to be initiated
    • Legal
    • Organisational
    • Technical
    • Quality assurance and responsibilities
    • Research
Time Table

• April 2007 – Start of Working Group
• 5 Working Group meetings
• May, 27th 2008 – Internal workshop
  – 9.30 to 16.00 in Brussels, Belgium
  – First draft of document will be presented and discussed
  – Invitation: Interested parties, particularly public authorities, legal representatives and privacy delegates are invited
• Autumn 2008 – Public + “external” workshop
Related Work

• C2C-CC – Car to Car Communication Consortium
• CVIS – Cooperative Vehicle Infrastructure Systems
• GST – Global System for Telematics
• Sevecom – Secure Vehicle Communication
• Preciosa
• EVITA
• ISO-Standards (ISO/IEC JTC 1 SC 27)
  – Management of ICT security
  – Code of practice for information security management
  – Evaluation criteria for IT-Security
Conclusions

• The eSecurity WG works under the focus of Safety and with respect to Privacy as part of the eSafety Forum
• The goal is to
  – Identify the risks for safety and privacy given by the fact of more and more electronics (hardware), software and services in and for vehicles
  – Give recommendations for technical and non-technical measures
• No Safety without Security
• First draft of document will be available May, 27th 2008
  – Final version after feedback from concerned organisations
• More information:
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