



SMG9 SIM Aspects

SMG9 "SIM Aspects"

Every SIM with every mobile in every network - worldwide

Born in 1988, still going strong

- Custodian of the SIM and its interfaces
 - maintenance of specifications
 - Phase 2+ enhancements
- User Identity Module for UMTS
- Generic issues for all ETSI IC cards
- The committee
 - 70+ delegates from 15+ countries
 - five Working Parties:
UMTS, API, Toolkit Security,
Testing, Generic Issues
 - Chairman Dr. Klaus Vedder, G&D



The SIM - A Removable Security Module

- Secure device under issuer control
 - issuer specific security mechanisms
 - secure key management
- Universal plastic roaming
 - keeping your identity when changing terminal or technology
- Issuer independent terminal
 - terminal does not contain any subscription data
 - global market versus local market - economy of scales
 - bigger choice for the customer through more competition



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Complete Set of Specifications

- SIM - ME Interface
 - electrical (incl. low voltage), mechanical, logical
- SIM Application Toolkit
 - toolbox for card issuers to create *terminal independent* applications for issuer differentiation
 - Application Protocol Interface for secure (over-the-air) loading of *manufacturer independent SW*
 - ⇒ JAVA™ API in co-operation with the JAVA™ Card Forum
 - ⇒ co-operation with VISA on the integration of the VISA Open Platform
- Set of Test Standards



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SIM Application Toolkit

The basis for issuer differentiation

- **Secure Over-the-Air administration**
 - downloading data and applications
- **SIM as basis for Value Added Services**
 - end-to-end communication (SIM - VAS platform)
 - applications independent of handset (manufacturer)
- **Typical applications**
 - mobile banking (secure money transfer)
 - loading of electronic purses over-the-air
 - user-friendly information services
 - services based on locality (e.g. taxis, hotels, call charges,...)
 - part of the VHE (Virtual Home Environment)



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SIM Application Toolkit

Toolbox for issuer specific SIM applications

- **Standardised mechanisms, commands and functions**
- **Some functions and features provided**
 - configuration of handset menus, control of display
 - icons / diagrams; timer; 2nd card interface
 - use of local information
- **Utilisation of SIM inherent security features**
- **Incorporate issuer specific (end-to-end) security functions**



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Conclusion

The SIM is an essential element for security, universal roaming and service differentiation



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