A Short Introduction to ETSI CTI Services

Wireless Factory Workshop

Stephan Schulz
Centre for Testing & IOP
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World Class Standards

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CTI
Standards Engineering based on methodology and best working practices

Protocol Design

Training

Validation Activities

Interoperability Events

Test Specifications
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CTI
Standards Engineering based on methodology and best working practices

Protocol Design and Specification
- Application of best practice
- 3-Stage approach
- Techniques such as:
  - UML, MSC, SDL, ASN.1, XML etc.

Training
- Best Practices
- Methodology
- Languages
- Implementation issues

Validation Activities
- Validation of Standards
- Validation of products
- Peer-review
- Simulation by modelling
- Interoperability events

Interoperability Events
- Organizational & Technical
- Logistics, website, press
- Registration, NDA, promo
- Test platform and IT
- Monitoring, test results
- Feedback to TC

Test Specification
- Test Planning & Frameworks
- Extraction of Requirements
- Test Purposes
- Test Descriptions
- TTCN-3 code
- Tool support
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Typical ETSI Standards Development Process

- ETSI: Development of base standards
- Interoperability Test Specifications
- Conformance Test Specifications
- Interoperability Testing
- (Unit) Conformance Testing
- Iterative feedback
- Certification

Products mature from prototypes to commercial products.

Testing provides vital feedback, e.g., holes, errors, or inconsistencies, in base standards.
Typical Test Specification Projects

- Cellular: GSM, 3G UMTS
- WiFi: HiperMAN, HiperACCESS, WiMax
- VoIP: H.323, IETF SIP, SIGTRAN
- Service Creation: OSA/Parlay (API, IDL, Java)
- IPv6: Core, Security, Mobility, v4-v6
- Radio communications: TETRA, DECT, DMR
- Access terminals: FSK, SMS
- Broadband: ISDN, DSL
- Smartcards: Readers, cards, security modules
- Intelligent Transport Systems (ITS): DSRC
- NGN: IMS, Grid
- Security: LI, Electronic Signature
- Broadcast: IP TV, BCAST, HDMI
Why Interoperability Events?

- **Aim is to validate standards**
  - Not implementations or products
  - Feedback (CRs) to relevant technical bodies

- **But testing and debugging are useful by-products**
  - Achieve in one week what would take months otherwise

- **A tool to develop and mature standards**

- **Promote technology and community**
Interoperability Event Services

- **Event Management**
  - Dedicated event coordinator
  - Event website
  - Logistical arrangements
  - Online registration & payment
  - Legal aspects (NDA)
  - Promotional material
  - Press releases

- **Technical Support**
  - Test session scheduling & supervision
  - Test infrastructure design, installation & teardown
  - IT support
  - Final test report

[http://www.etsi.org/plugtests](http://www.etsi.org/plugtests)
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Typical

- SIGTRAN
- Bluetooth
- IPv6 (Core, IPSEC, etc)
- Triple Play over xDSL
- SIM/Handset
- WLAN IRAP
- RFID
- STQ (Speech Quality)
- WiMAX
- Ultra Wideband (UWB)
- OSA/Parlay (ParlayX)

- SIPit
- IMS
- HDMI
- Air Traffic Control (EUROCAE)
- Electronic Signature (XadES)
- Lawful Interception (LI)
- Optical Fibre (GPON)
- Power Line (PLT)
- GRID
- Intelligent Transport Systems (ITS)
- FMCA