Welcome to the World of Standards

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REVIEW OF TC SMARTBAN

[J. Farserotu]

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Technical overview

- **Key technical challenges for BAN today include:**
  - Radio co-existence, robustness and QoS
  - ULP multi-radio PHY and enhancements
  - Low complexity, ULP MAC
  - Heterogeneous networks, end-to-end system, handling and presentation of data
  - Interoperability
  - Security / privacy / trust
  - Smart control, coordination and management
  - Multi-layer (PHY-MAC through API and applications)
  - Implant communication
- **TC Smart BAN addresses communication protocols, physical layer, security, and coexistence issues for BAN.**
- **Different to other TBs because ...TC SmartBAN is a vertical technical committee focussed on the issues and technical challenges of Body Area Networks**

Terms of Reference

- TC Smart BAN is a vertical technical committee with responsibilities for development and maintenance of ETSI Standards, Specifications, Reports, Guides and other deliverables to support the development and implementation of Smart Body Area Network technologies (Wireless BAN, Personal BAN, Personal Networks etc.)
- Target applications include health, wellness, leisure, sport and other relevant domains.
- TC SmartBAN's scope includes communication media, and associated physical layer, network layer, security, QoS and lawful intercept, and also provision of generic applications and services (e.g. web) for standardisation in the area of BAN technologies.

Use what exists, fill in the gaps, and make it work better. This is the mission of the new ETSI TC SmartBAN

Progress of Work

- **Meetings**
  - TC SmartBAN has held two face-to-face meetings held in the first 6 months in addition to teleconferences
    - TC SmartBAN#1, Nice, FR, 28 May 2013
    - TC SmartBAN#2, Bristol, UK, 5 September 2013
  - 3-4 face-to-face meetings are planned per year.
- **Electronic working**
  - Announcements and distribution of documents on the ETSI server
  - Email
  - GoToMeeting
  - Remote consensus
  - Latest Draft Tool

TB Structure

- **Plenary level (Projects)**
  1. **Heterogeneity management, data representation and transfer**
  2. Smart control, network management, interoperability & security
  3. **Multi-layer, co-existence and dependability for SmartBAN**
  4. **Low complexity MAC and routing for SmartBAN**
  5. Enhanced, ultra-low power PHY for SmartBAN
  6. SmartBAN implant communication
- **Project 1: Heterogeneity management, data representation and transfer**
  - WI 1.1 - Service, application and data representation (M. Girod)
- **Project 3: Multi-layer, co-existence and dependability for SmartBAN**
  - WI 3.1 - 2.4 GHz band coexistence (L. Mucchi)
- **Project 4: Low complexity MAC and routing for SmartBAN**
  - WI 4.1 - Low complexity MAC and routing requirements for SmartBAN (W. Chin)

Major activities/deliverables

- **New ETSI members to support SmartBAN work**
  - University of Oulu joint ETSI membership in March 2013
  - Few others are considering to apply
- **Draft, Work Item DTR/SmartBAN-004 (TR), Data representation and transfer, service and application**
  - First draft has been uploaded to the latest draft tool
- **Draft, Work Item DTS/SmartBAN-005 (TS), Low Complexity Medium Access Control and Routing**
- **Draft, Work Item DTS/SmartBAN-006 (TS), Smart BAN coexistence with all the users in the 2.4 GHz band**
  - Cooperation with TC ERM and its relevant groups is crucial for the new TC.

STFs

- N/A at this time.
- However, STF help is considered for the future e.g. support for coexistence measurements and analysis

Successes/failures

- **TC SmartBAN successfully launched to address the need for further standardization with respect to BAN**
- **Three Work Items open and active**
  - Heterogeneity management, data representation and transfer
  - Multi-layer, co-existence and dependability for SmartBAN
  - Low complexity MAC and routing for SmartBAN
- **LS to TC ERM**
- **One new ETSI member (Uni Oulu)**
- **TC SmartBAN publicity**
  - Wireless Connectivity in Medical Devices 2013 conference, Munich, Germany, 21-22 May 2013
  - World Medical Technology Forum 2013 (WMTF 2013), Lucerne, Switzerland 17 September 2013

Where next ?

- **Our target is have the following documents / deliverables prepared by the end of Q1 2014**
  - Work Item DTR/SmartBAN-004 (TR), Data representation and transfer, service and application
  - Work Item DTS/SmartBAN-005 (TS), Low Complexity Medium Access Control and Routing
  - Work Item DTS/SmartBAN-006 (TS), Smart BAN coexistence with all the users in the 2.4 GHz ban
- **Additional deliverables will be proposed as and when needed.**

Thank you for your attention!