WG03 – IoT Standardization

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WG03 IoT Standardisation in AIOTI first phase

- AIOTI WG03 had
  - 270 Members,
  - 400+ subscribers in exploder list,
  - 30+ liaisons

- 4 sub-groups with 4 reports published
  - IoT Landscape
  - High Level Architecture
  - Semantic Interoperability
    - Joint Work Paper with oneM2M, W3C and IEEE
  - IoT Privacy
    - in cooperation with WG04 (IoT Policy)

- Plus 2 Technical Reports published by EC funded ETSI STF 505
  - Identification of IoT Standards
  - Identification of IoT Gaps
The AIOTI WG03 Dynamics

- **AIOTI WG03**
  - Analyze landscape
  - Identify gaps, divergences, common concerns

- **AIOTI**
  - Publish guidance and recommendations
  - Task sub-teams to address themes

- **Security and Privacy**
  - Architecture
  - Semantic Interop

- **Researchers**
- **OSS**
- **AIOTI WGs**
- **Companies**
- **Policy Makers**
- **Regulators**
- **Alliances**
- **Consortia**
- **Large Scale Pilots**
- **Testbeds**
- **Pilots**
IoT Open Source Initiatives Landscape
(Technology and Marketing Dimensions)

Source: AIOTI WG3 (IoT Standardisation) – Release 2.7
Mapping of IoT SDOs/Alliances to Knowledge Areas

Source: AIOTI WG3 (IoT Standardisation) – Release 2.7
Mapping of IoT OSS initiatives to Knowledge Areas

Source: AIOTI WG3 (IoT Standardisation) – Release 2.7
The ETSI STF 505 in support of AIOTI WG3

- ETSI TC SmartM2M launched a Specialist Task Force (STF505) to provide two reports
  - TR 103 375 on IoT Standards landscaping
    - analyzing the standards landscape provides a list of existing standardized technology suggested for reuse by the LSPs
  - TR 103 376 on IoT gap analysis
    - identifying technical/societal/business gaps as a good indication of the level of maturity of standardization in a given vertical domain

- Both reports have been published
  - Stable Draft in June 2016
  - Public review phase
  - Final Draft in August 2016
  - Publication as ETSI reports in October 2016

- Final presentation of results on February 7th in Brussels
  - Presentation of STF 505 results and recommendations
  - Feedback from IoT community stakeholders, e.g., Standards Organizations
329 standards identified
- allocated to
  - 7 vertical IoT Domains (LSPs)
  - 7 Knowledge Areas (AIOTI WG3)
- 150 Generic Standards
  - Common to 3+ vertical domains
- 179 Domain-specific Standards

Over 70% of standards in
- Communication and connectivity
- Integration/Interoperability
- IoT Architecture

Common standards mostly in
- Communication and connectivity
- Integration/Interoperability
- Device and sensor technology
- Infrastructure
Highlights of TR 103 376 on IoT Gaps Analysis

- **What gaps are**
  - Missing standards; missing APIs
  - Duplications requiring harmonization
  - Missing interoperability profiles

- **Technical/Business/Societal gaps**
  - Security & privacy classified as Societal gaps

- **Gaps Identification**
  - Survey in the IoT community (215 answers)
  - Complemented by the STF experts analysis

- **Dissemination of STF results**
  - Towards the IoT community e.g., LSPs

- **Resolution of gaps**
  - Left to the proper organizations in the IoT community
WG03 Plans with H2020 IoT LSPs in the new AIOTI Association

- Keep large membership and great momentum and its current organisation based on 5 sub-group and deliverables, the liaised SDOs/Alliances in order to solve AIOTI WG03 future key and specific challenges.

- **IoT Landscape**
  - IoT Landscape maintenance is key to keep the liaisons alive and maintain dialogue on how to foster collaboration to improve interoperability & security
  - IoT-EPI IoT Platforms analysis improvement / H2020 UNIFY-IoT
  - Gap Analysis and recommendations / EC funded STF 505
  - Cooperation with SDOs/Alliances to foster co-creation and interworking (Patrick Guillemin)

- **HLA / High Level Architecture**
  - IoT identification
  - IoT Reference Architecture and its mapping with existing IoT Reference Architectures

- **IoT Semantic Interoperability**
  - Important topic of the moment that created a great international collaboration

- **IoT Privacy (with WG04)**
  - IoT Platform, experimentation, LSPs need concrete standard framework & references to enable "IoT Trust” and IoT “Privacy by design”

- **IoT Security (with WG04)**
  - IoT Security Architecture for Trusted IoT Devices; Baseline Requirements for Security & Privacy up to segment requirements; experimentation, LSPs need concrete standard framework & references to enable "IoT Trust” based on IoT “Security by design”
Thank you!

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