Overview of ITU Standards for e-health

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"Multimedia"

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HL7 WG Meetings – Mobile Health
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A sample of ITU private sector members
ITU collaborates with relevant standards development organizations

40+ formal partnerships
ITU Development Sector - mHealth

ITU-WHO “Be He@lthy Be Mobile” Initiative

- Joint work plan to use mobile technologies to address the Non-Communicable Diseases (NCDs) burden through scalable mHealth solutions
- The initiative targets 8 countries in 4 years in the area of prevention, treatment and policy enforcement
- Already implemented national mHealth programmes:
  - Costa Rica for Smoking Cessation
  - Senegal for Diabetes Prevention and Control

The initiative aims at:

- Address NCDs and their risk factors
- Enhance country capacities to develop and employ mobile technologies and communications channels
- Create country level platforms and environment for partnership
- Design mHealth for NCD intervention projects
- Strengthen capacity of local stakeholders for optimal and efficient use of available resources
- Validate use of mobile NCD projects
Technology areas

✓ Personal health devices

✓ Data exchange schema and supporting services

✓ Health monitoring

✓ IPTV
ITU-T H.810 (2013)

✓ Ensures interoperability of devices used for applications monitoring personal health.

✓ Defines the interfaces between:
  ➢ Touch area network (TAN) health devices and application hosting devices (AHDs)
  ➢ Personal area network (PAN) health devices and AHDs
  ➢ Local area network (LAN) health devices and AHDs
  ➢ AHDs and wide area network (WAN) health devices
  ➢ WAN health devices and Health Record Network health devices

✓ Test suites completed
  ➢ 32 specs covering 1500+ test cases

✓ New edition expected in 4Q 2015
ITU-TH.820-H.850 sub-series

✓ Conformance testing of H.810 (2013) implementations

- HRN component (H.820-series)
- WAN components (H.830-series)
- LAN/PAN/TAN components (H.820~H.850 series)
Data exchange schema and supporting services

✓ Recommendation **ITU-T H.860** (2014-04)
  - Multimedia e-health data exchange services: data schema and supporting services

✓ Features:
  - Common Health Data Schema (using relevant data standards)
    - E.g. ICD-10, CPT-4/5, LOINC, SNOMED
  - Collaborative development framework
    - Governance for data exchange services
  - Basic service architecture
    - enabling data security and scalability
Committed to Connecting the World

Health monitoring

Independent living

✓ Recommendation ITU-TY.2065 (2014-03)
  ➢ IoT-centric service and capability requirements for e-health monitoring services
    ▪ Classification, characteristics & scenarios
    ▪ Service requirements
    ▪ Capability requirements

✓ Under development:
  ➢ Capability framework for e-health monitoring services
E-health app using ITU-T IPTV standards

Widget implemented with LIME (ITU-T H.762) for e-health information collected from the user site, consolidated in the server backend and displayed on users’ IPTV terminal device as a widget. Health devices as per ITU-T H.810.
Where the work is done?

✓ **Study Group 16 – Multimedia** – lead ITU study group on IPTV, e-health, media coding, accessibility, IoT, ITS

- **Question 28/16**: Multimedia framework for e-health applications
- **IPTV-GSI**: umbrella event with topical Questions for e-health, IPTV and digital signage (Q 28/16, Q 13/16, Q 14/16)

✓ **Study Group 13 – Future networks & cloud**

- **Question 2/13**: Requirements for NGN evolution (NGN-e) and its capabilities including support of IoT and use of software-defined networking
How to contribute to the technical work?

✓ Participate in IPTV-GSI, ITU-TSG 16
  ➢ e-health but also IPTV & digital signage

✓ Participate in ITU-TSG 13 Q 2/13

✓ Propose topics and provide panelists for workshops and related events
New work just started

✓ Revision of H.810 for the new version of the Continua guidelines ("Genome")
  ➢ More efficient HRN, new device classes supported
  ➢ Restructured into parts, for easier use and maintenance

✓ New work item on ITU-TH.OPVQ "E-health application for on-flight and post-flight virtual quarantine"
  ➢ Coordinated with ITU-T Focus Group on Aviation Cloud
For more information

  - Introduction to the ITU-TH.810 Continua Design Guidelines

- [http://itu.int/ITU-T/go/sg16](http://itu.int/ITU-T/go/sg16)
- [http://itu.int/ITU-T/go/sg13](http://itu.int/ITU-T/go/sg13)

- [http://itu.int/interop](http://itu.int/interop)

Conclusion

✔ Standardization work is moved by the private sector

✔ ITU works in cooperation with relevant external stakeholders
  ➢ Interest in standards for mobile health

✔ ITU e-health standards include a family of personal health device standards - Continua Design Guidelines

✔ Opportunities for collaboration?