

ISO/IEC JTC 1/WG 7 Working Group on Sensor Networks

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ISO/IEC JTC 1/WG 7 Convenor:

Dr. Yongjin Kim, Modacom Co., Ltd (Email: cap@modacom.co.kr)

ISO/IEC JTC 1/WG 7 Secretariat:

Ms. Jooran Lee, Korean Standards Association (Email: jooran@kisi.or.kr)

Report of Ad hoc group on terminology

1. Background

ISO/IEC JTC 1 WG 7 was established based on the Resolution 34 from 2009 JTC 1 Tel Aviv Meeting. One of the terms of reference for WG 7 is to undertake the standardization activities on terminology.

Terminology on sensor networks in WGSN-N010 documents was presented on the 1st WG 7 meeting in London. Since the importance of terminology on sensor networks was recognized, the experts agreed to start an initial work after the meeting. In order to achieve that, a template and an example were produced as in the WGSN-N021 and Ad hoc group on terminology was established. Five experts volunteered to join in the initial work for completing the template.

Project ISO/IEC WD 29182 will be developed to a multi part standard. The part 2 of this standard is Vocabulary/Terminology as described in WGSN-N023.

2. Ongoing activities

As agreed on 1st WG 7 meeting, terminology activity should start with an initial work which is to fill in the template with the entries listed in WGSN-N021. ISO concept database, international Electrotechnical Vocabulary and other search engines could be used as the tools for searching the current terms which will be potentially defined in further standardization activities in sensor networks. Analysis and discussion of the gaps between the current definition and concept used in sensor networks will be done in the next step. Based on the result of gap analysis and contributions, a working draft could be prepared by the 3rd WG 7 meeting.

By summarizing the two contributions from UK experts and Chinese experts

(WGSN-N045, WGSN-N066), the following table is produced. Unfortunately, the template has not been completed yet.

Table 1 Summary of terminology initial work

Terms listed in WGSN-N021	Status(if being searched then Y, else N)
Actuator	Y
Application layer	N
Basic functions layer	N
Collaborative information processing	Y
Communication	Y
Data interface	N
Entity	N
Identification	Y
Identity	Y
Information	Y
Information service supporting	Y
Knowledge	Y
Layer	N
Metadata	N
Middleware	N
Physical world	N
Pre-processed data	N
Raw data	N
Reference architecture	N
Reference model	N
Reference architecture	N
Rest of world	N
Sensor	Y
Sensor data	Υ
Sensor interface	N
Sensor node	Υ
Sensor node interface	N
Sensor networks	Υ
Sensor networks application / application	Υ
Sensor networks device	Υ
Sensor networks function / function	N
Sensor networks gateway	Y
Sensor networks operating system	N
Sensor networks service / service	Y
Sensor networks Security & Privacy	Y
Service access point	N

Service layer	N
Service management	N

In the UK contribution, WGSN-N066, some new terms are mentioned to be considered for the further standardization activities:

- Sensor network metadata
- Sensor network metadata directory service
- Sensor network service management
- Sensor network management protocol agent
- Sensor network management protocol manager
- Wireless sensor network
- Control node
- Network
- Control network

Another contribution from US NB was received as presented in WGSN-N044, including US's comments on WGSN-N021. The intention of WGSN-N021 is to start an initial work on sensor networks terminology. The template is not developed either as a standard text or a working draft. In this case, some of the comments may not be suitable. However, the US's contribution should really be considered while making a working draft on terminology. It is recommended that US expert could express their thoughts about WGSN-N044 on the 2^{nd} WG 7 meeting before the disposition of comments is made.

3. Working plan till next WG 7 meeting

- Finalizing the Template with the help of experts
- Organizing discussions on the gap analysis between the current definition and concept used in sensor networks
- Calling for contributions
- Preparing a working draft