

ISO/IEC JTC 1
Study Group on Sensor Networks

Document Number:	SGSN N066
Date:	2009-03-10
Replace:	
Document Type:	Outgoing Liaison Statement
Document Title:	Liaison Contribution from JTC 1 SGSN to SDOs, fora and consortia with sensor network standardization activity
Document Source:	JTC 1 SGSN Sydney meeting
Document Status:	For your information
Action ID:	Contributions should be submitted to SGSN Secretary no later than 29 April 2009.
Due Date;	
No. of Pages:	7

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Liaison Contribution from JTC 1 SGSN to SDOs, fora and consortia with sensor network standardization activity

Attachment 1: SGSN ToR

Attachment 2: SGSN Technical Document Ver.2 (SGSN N070)

In 2007 JTC1 formed a Study Group on Sensor Networks to investigate where standardization in this area was necessary within JTC1 and its various subcommittees.

JTC 1/SC 2	Coded character sets
JTC 1/SC 6	Telecommunications and information exchange between systems
JTC 1/SC 7	Software and systems engineering
JTC 1/SC 17	Cards and personal identification
JTC 1/SC 22	Programming languages, their environments and system software interfaces
JTC 1/SC 23	Digitally Recorded Media for Information Interchange and Storage
JTC 1/SC 24	Computer graphics, image processing and environmental data representation
JTC 1/SC 25	Interconnection of information technology equipment
JTC 1/SC 27	IT Security techniques
JTC 1/SC 28	Office equipment
JTC 1/SC 29	Coding of audio, picture, multimedia and hypermedia information
JTC 1/SC 31	Automatic identification and data capture techniques
JTC 1/SC 32	Data management and interchange
JTC 1/SC 34	Document description and processing languages
JTC 1/SC 35	User interfaces
JTC 1/SC 36	Information technology for learning, education and training

The SGSN has produced a Technical Document identifying the requirements for sensor networks, several application examples of current sensor network deployment, sections on sensor network architectures and potential areas of sensor network standardization and an overview of sensor network standardization activity in JTC1 and other organizations. SGSN has identified that your organisation is involved in standardization in the field of sensor networks and requests contributions with information on your current work (including the scope of current projects) and the potential new areas for standardization related to sensor networks in your field. Information on the timeframe of existing projects and the probable start dates of new projects would be very helpful.

Standardization areas to potential SCs

(from Section 8.2 of SGSN Technical Document Ver.2)

Bold letters mean that SC has a related or relevant project or activities in the potential standardization areas.

Standardization Areas	ISO/IEC JTC 1 SCs
Terminology	JTC 1
Requirements Analysis	SC 6, SC 17, SC 25, SC 36
Reference Architecture	SC 6
Application Profiles	SC 31, SC 36, SC 37
Sensor Interfaces	SC 6, SC 31, SC 37
Data type and Data Interface	SC 6, SC 32
Communication	SC 6
Mobility Support	SC 6
Network Management	SC 6
Collaborative Information Processing	SC 32
Information Service Supporting	SC 6, SC 24, SC 29, SC 31, SC 32
Quality of Service (QoS)	SC 6
Middleware	SC 6, SC 25, SC 29, SC 32, SC 36
Security & Privacy	SC 6, SC 17, SC 27, SC 29, SC 36, SC 37
Comformance, Interoperability, Performance Testing	None Known

Standardization areas to potential SDOs, Consortia, and Fora

(from Section 8.3 of SGSN Technical Document Ver.2)

Standardization Areas	Other SDOs, Consortia, and Fora
Terminology	ITU-T SG 13, 16, 17; JCA-NID
Requirements Analysis	ISO TC 204, TC 211; IEC TC 65; ITU-T SG 13, 16, 17; ISA100; IETF 6LoWPAN; ROLL WG; OGC
Reference Architecture	ITU-T SG 13 & 16; ISO TC 204
Application Profiles	ZigBee Alliance; OGC
Sensor Interfaces	IEEE 1451.x; IEC SC 17B, EPCglobal
Data type and Data Interface	ITU-T SG 16
Communication	IEC SC 65C; IEEE 802.15.x; IPSO Alliance
Mobility Support	IETF MANET MIP WG
Network Management	ZigBee Alliance; IETF SNMP WG
Collaborative Information Processing	OGC; W3C
Information Service Supporting	OGC; W3C; IETF ENUM WG, EPCglobal
Quality of Service (QoS)	ITU-T; IETF
Middleware	ITU-T SG 16
Security & Privacy	ITU-T SG 17
Comformance, Interoperability, Performance Testing	ZigBee Alliance

The current version of the SGSN Technical Document (Attachment 2) is attached and the SGSN requests that you review this document and submit comments by 29 April 2009 so that they can be considered at the 4th meeting of the SGSN. In particular in Section 8 of the SGSN Technical Document there is an initial analysis of standardization activities related to sensor networks in JTC 1 SCs and an overview of activities in other SDOs. It is intended to provide specific project information in the section on activities in fora, consortia and standardization bodies other than JTC1 and your input to this would be very helpful to ensure that all relevant information is included in the next version.

Since SGSN has identified activities relating to sensor networks in the work programme of your

organisation it would welcome the participation of liaison representatives from your organization in the work of the SGSN. This participation can be effected by a) subscribing a nominated representative to the SGSN email reflector (sgsn@modacom.co.kr) and b) the nominated representative attending the 4th SGSN meeting (29 June – 3 July 2009 in Oslo, Norway).

Attachment 1

JTC 1 SGSN Terms of Reference approved at the 23rd JTC 1 Plenary meeting in 2008

1) Review the current definitions and visions and requirements for target applications of Sensor Networks within JTC 1 and outside JTC 1 in connection with different application areas (e.g. home, medical informatics, transport informatics, industrial communications, RFID etc) as well as JTC 1 SCs roles in these application areas

2) Review and identify

- the unique characteristics of Sensor Networks and the commonalities and differences with other networks
- the system architectures of Sensor Networks in terms of functionalities
- the entities that together comprise Sensor Networks and their characteristics
- existing protocols that can be used for Sensor Networks and the elements of protocols that are unique to Sensor Networks
- the scope of infrastructure that can be considered to be a Sensor Network
- the types of data that need to be handled (acquired, processed, transported, stored, rendered etc) by Sensor Networks and any specific QoS attributes required by those categories
- the interfaces that need to be supported by Sensor Networks
- the services that need to be supported by Sensor Networks
- aspects such as security, privacy, identification that may be relevant to specific Sensor Networks

3) Monitor other activities in international standardisation bodies and consortia and fora where specifications related to Sensor Networks are being developed.

4) Produce a report covering 1) and 2) above and information on other relevant standardisation activities

5) In the light of published SC scopes and work programmes and the results of 1) to 3) recommend potential areas of work to JTC1 and appropriate SCs and establishment of appropriate liaison relationships to ensure that all necessary aspects of Sensor Networks within the scope of JTC1 are standardised

6) Recommend how the work on Sensor Networks can be efficiently coordinated in JTC1.

7) The SGSN may hold workshops to gather requirements or publicise the results

8) Meetings of the group may be physical or via electronic means

Membership in the SG will be open to:

- JTC 1 National Bodies and Category A Liaisons, AROs and PAS submitters
- JTC 1 SCs
- members of ISO and IEC Central Office
- ISO or IEC TCs, SCs, WGs in liaison with JTC 1 or its subgroups

In addition, the Convener may invite experts with specific expertise in the field.