

P1451.1.4

Submitter Email: kang.lee@nist.gov
Type of Project: New IEEE Standard
PAR Request Date: 17-Oct-2011
PAR Approval Date: 06-Feb-2012
PAR Expiration Date: 31-Dec-2016
Status: PAR for a New IEEE Standard

1.1 Project Number: P1451.1.4
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Standard for a Smart Transducer Interface for Sensors, Actuators, and Devices - eXtensible Messaging and Presence Protocol (XMPP) for Networked Device Communication

3.1 Working Group: XMPP Interface Working Group (IM/ST/XMPPI)

Contact Information for Working Group Chair

Name: William Miller
Email Address: mact-usa@att.net
Phone: 301-500-9277

Contact Information for Working Group Vice-Chair

Name: Kang Lee
Email Address: kang.lee@nist.gov
Phone: 301-975-6604

3.2 Sponsoring Society and Committee: IEEE Instrumentation and Measurement Society/TC9 - Sensor Technology (IM/ST)

Contact Information for Sponsor Chair

Name: Kang Lee
Email Address: kang.lee@nist.gov
Phone: 301-975-6604

Contact Information for Standards Representative

Name: Kang Lee
Email Address: kang.lee@nist.gov
Phone: 301-975-6604

4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 09/2014

4.3 Projected Completion Date for Submittal to RevCom: 10/2015

5.1 Approximate number of people expected to be actively involved in the development of this project: 20

5.2 Scope: This standard defines a method for transporting IEEE 1451 messages over a network using eXtensible Messaging and Presence Protocol (XMPP) to establish session initiation, secure communication, and characteristic identification between networked client and server devices using device Meta identification information based on the IEEE 1451 Transducer Electronic Data Sheets (TEDS).

5.3 Is the completion of this standard dependent upon the completion of another standard: Yes

If yes please explain: This standard project is contingent upon P1451.1, Proposed Standard for a Smart Transducer Interface for Sensors and Actuators - Common Network Services. This standard uses the common network services defined in P1451.1. This standard will be developed in tandem and will not be completed for balloting until P1451.1 is approved by the IEEE RevCom.

5.4 Purpose: The purpose of this standard is to provide session initiation and protocol transport for sensors, actuators, and devices. The standard addresses issues of security, scalability, and interoperability. This standard can provide significant cost savings and reduce complexity, leveraging current instrumentation and devices used in industry.

5.5 Need for the Project: The current implementations of sensor and actuator systems do not provide a means of secure session initiation and are limited to transport of native Internet Protocols (IPs) to a local network. This project will facilitate technology agnostic and protocol independent transport of data over wired or wireless networks including the Internet.

5.6 Stakeholders for the Standard: The stakeholders include sensor/network manufacturers, system integrators, and smart sensor/actuators system users including the Smart Grid, SCADA/process control, transportation systems, remote health sensors, smart phone/devices, geospatial/military applications.

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

7.1 Are there other standards or projects with a similar scope?: No

7.2 Joint Development

Is it the intent to develop this document jointly with another organization?: Yes

Organization: ISO/IEC JTC1

Technical Committee Name: Mobile Item Identification and Management (MIIM)

Technical Committee Number: SC31/WG6

Contact Name: Craig Harmon

Phone: 319 364 0212

Email: craig.harmon@ged.org

8.1 Additional Explanatory Notes (Item Number and Explanation): IEEE 1451.0 - IEEE Standard for a Smart Transducer Interface for Sensors and Actuators - Common Functions, Communication Protocols, and Transducer Electronic Data Sheet (TEDS) Formats