Meeting Announcement

Devices and Systems Harmonization Working Group (IM/ST/DASH)

Date: February 22, 2017
Time: 11 a.m. EST(USA)

The IEEE-SA NesCom has approved a standards development project, designated as P1451-99, Standard for the Harmonization of Internet of Things (IoT) Devices and Systems. This Standard aims to facilitate the sharing of data and information of IoT devices and systems in an interoperable manner. The Devices and Systems Harmonization (DASH) Working Group has been formed to develop this Standard. You are cordially invited to participate in the meeting of the Working Group. This standards development project is sponsored by the IEEE Instrumentation and Measurement Society (IMS)/Technical Committee on Sensor Technology TC-9, and cosponsored by the IEEE Industrial Electronics Society (IES)/Standards Committee and IEEE Sensors Council (SC)/Standards Committee. The meeting is open to all interested parties.

This Working Group is Chaired by William Miller and Co-Chaired by Kang Lee

Purpose of the standards project:
The purpose of this standard is to define a metadata bridge to facilitate IoT 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, and offer a data sharing approach leveraging current instrumentation and devices used in industry.

Scope of the standards project:
This standard defines a method for data sharing, interoperability, and security of messages over a network, where sensors, actuators and other devices can interoperate, regardless of underlying communication technology. The backend of such a globally scalable, secure and interoperable network would be based on the eXtensible Messaging and Presence Protocol (XMPP), and rely on infrastructural components, or bridges, with standardized interfaces that provide real-time conversion of other IoT and M2M protocols, such as those based on CoAP (Constrained Application Protocol), HTTP (Hypertext Transfer Protocol), MQTT (Message Queuing Telemetry Transport Protocol), AMQP (Advanced Message Queuing Protocol), etc., and other interoperability interfaces, such as those provided by the IEEE 1451 Smart Transducer Interface, oneM2M, OMA LWM2M (Open Mobile Alliance Lightweight M2M), OIC (Open Internet Connection), UPnP (Universal Plug and Play), IPSO (Internet Protocol for Smart Objects) Alliance, etc. The standard utilizes the advanced capabilities of the XMPP protocol, such as providing globally authenticated identities, authorization, presence, life cycle management, interoperable communication, IoT discovery and provisioning. Descriptive meta-

data about devices and operations will provide sufficient information for infrastructural components, services and end-users to dynamically adapt to a changing environment. Key components and needs of a successful Smart City infrastructure will be identified and addressed. This standard does not develop Application Programming Interfaces (APIs) for existing IoT or legacy protocols.

Proposed Agenda:

1. Call to the meeting
2. Roll call
3. Approval of agenda
4. Review of IEEE rules (voting membership, patent policy, etc)
5. Discussion on approach in developing the proposed P1451-99 standard
6. Proposed standards development schedule
7. Next meeting date
8. Meeting adjourned

If you are interested to participate in the working group meeting and to join the working group to help develop this standard, please contact our Working Group Secretary, Victor Huang, listed below by Feb 14, so we can send you webmeeting login information.

Meanwhile, if you have any question in regards to the Standard to be developed, please feel free to contact the Chair or Co-Chair. We will answer your question the best we can.

We look forward to your participation.

Sincerely,

William Miller, mact-usa@att.net, WG Chair

Kang Lee, kang.lee@ieee.org, WG Co-Chair

Victor Huang, vklhuang@aol.com, Secretary, IEEE IES Co-Sponsor

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