WG Charter

Internet2 Internet of Things Working Group

(charter)

Last updated May 21, 2015

Introduction

The Internet of Things (IoT) promises to extend the utility of Internet connectivity to billions of physical objects "i.e.,things". The IoT has potential to touch nearly every aspect of life. Rather than connecting to the Internet with a device such as a cell phone or laptop, people will travel through spaces where the objects themselves are connected. The IoT is not a single event, even now there are many connected things around us (e.g., Fitbit, home automation systems, cars such as the Chevy Volt that report their status, etc.), however, the confluence of wireless technologies, new sensors, and tiny computers, is greatly accelerating its diffusion. The coming IoT will impact nearly every aspect of modern society, and the research and education community has an important role in its development. The Internet was/is the first fully open platform for communications. While the IoT will use Internet protocols for its underlying communications, the things themselves may communicate in proprietary tongues. Our community must ensure the IoT is open, secure, privacy preserving, and of great utility to all.

Mission and Scope:

The WG seeks to:

- Improve community awareness and understanding of the IoT, and its implications.
- Identify research gaps and needs to be addressed to be a catalyst and enabler for IoT deployment and success worldwide
- Foster collaboration worldwide among Internet2 members and international partners to enable a global IoT research and education plan
    - Identify and support the investigation of IoT use cases that may benefit Internet2 members (e.g., campus operations, health care, teaching and learning, etc.).
- Identify needs for and assist Internet2 in developing IoT services that can serve its members for IoT research and deployment
- Scope of participants includes all interested Internet2 members (universities, affiliates, NRENs), industry partners, international partners

Vision and Value

IoT WG at Internet2 focuses on the strength for Internet2 which is the collaborative work of member institutions and the advanced research in areas like security & trust, networking and cloud services. IoT WG aims to leverage those Internet2 resources and to provide emphasis on Higher Education applications as well as industry use cases for IoT developments and progress.

Participation and Operations / Approach

WG participation is open to all Internet2 members. The WG envisions a range of participants from individuals learning about IoT, to highly structured collaborations that may include teams from multiple members.

The IoT WG will conduct open meetings for Internet2 members, with open source results.

Communication Plan

Email

The WG uses a mailing list for communication "[TBD]" and an archive of previous discussions is available at [TBD]

Web

The WG maintains a Wiki webpage at [TBD] hosted by Internet2 and available for the public.

Conference Calls

- The IoT Working Group meets over the phone on a monthly basis.
- The IoT WG will be invited to bi-monthly meetings of the Internet2 Collaborative Innovation Community for sharing of best practices, learnings and content with the other CIC working groups -- End to End Trust & Security and Distributed Big Data & Analytics.

Face-to-face meetings

Occasionally and in conjunction with other events, the WG organizes face to face meetings of its members 2 - 4 times a year. This could include meetings at the Internet2 TechEx and Internet2 Global Summit.

General public presentations

The WG aims to establish presence in relevant conferences and meetings and present its progress to the public.

Major Milestones

- May 4 Initial co-leaders conference call
- May 27 first face-face meeting and conference call for the WG
- Oct 4-7 presentation and workshops at Internet2 TechEx, Cleveland, Ohio
- Dec 6-8 IoT World Forum in Dubai, Innovation and Research Symposium

Outcomes and Deliverables

The WG will develop and communicate to the IoT Working Group and Internet2 members:

- A list of projects including their owners, expectations, and timeline.
- Develop and publish white papers and recommendations for standards related to the IoT use cases, research and implementation of IoT.
- Engage in formal and informal collaborations with Internet2 members. These collaborations may include research, pilot implementations, test-beds, standards development, policy development, etc.
- Engage in formal and informal collaborations with outside organizations that are engaged with IoT activities that may usefully complement the activities of Internet2 members.
- Work with organizations that are developing IoT standards and POVs (e.g., NIST, IEEE, etc.) to enable a global view of these elements for consistent IoT enablement

Next Steps / Call to Action from the IOT WG Kickoff Call May 27, 2015

- Send a note to the IoT Working Group leadership team iotchairs@internet2.edu with your interest areas in IoT related to this working group. e.g.,
  - IoT use cases you are working on
  - IoT use cases you are interested in
  - Interest in IoT standards
  - Interest in IoT reference architectures
  - Work you already are doing with standards groups on IoT (e.g. IEEE P2413, NIST)
  - Research expertise on your campus / in your organization in IoT