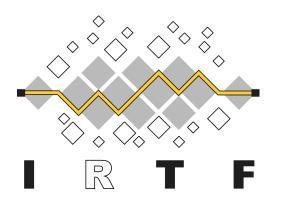
T2TRG: Thing-to-Thing Research Group

T2TRG Summary Meeting, December 12, 2022 Chairs: Carsten Bormann & Ari Keränen

Note Well

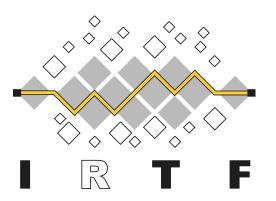
- You may be recorded
- Be nice
- The IPR guidelines of the IETF apply: see http://irtf.org/ipr for details.

Note Well – Privacy & Code of Conduct



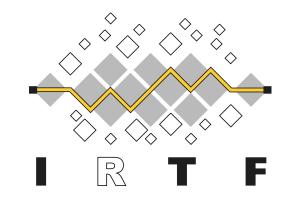
- As a participant in, or attendee to, any IRTF activity you acknowledge that written, audio, video, and photographic records of meetings may be made public
- Personal information that you provide to IRTF will be handled in accordance with the Privacy Policy at https://www.ietf.org/privacy-policy/
- As a participant or attendee, you agree to work respectfully with other participants; please contact the ombudsteam (https://www.ietf.org/contact/ombudsteam/) if you have questions or concerns about this
- See <u>RFC 7154</u> (Code of Conduct) and <u>RFC 7776</u> (Anti-Harassment Procedures), which also apply to IRTF

Note Well – Intellectual Property



- The IRTF follows the IETF Intellectual Property Rights (IPR) disclosure rules
- By participating in the IRTF, you agree to follow IRTF processes and policies:
 - If you are aware that any IRTF contribution is covered by patents or patent applications that are owned or controlled by you or your sponsor, you must disclose that fact, or not participate in the discussion
 - The IRTF expects that you file such IPR disclosures in a timely manner in a period measured in days or weeks, not months
 - The IRTF prefers that the most liberal licensing terms possible are made available for IRTF Stream documents – see RFC 5743
 - Definitive information is in <u>RFC 5378</u> (Copyright) and <u>RFC 8179</u> (Patents, Participation), substituting IRTF for IETF, and at https://irtf.org/policies/ipr

Goals of the IRTF



- The Internet Research Task Force (IRTF) focuses on longer term research issues related to the Internet while the parallel organisation, the IETF, focuses on shorter term issues of engineering and standards making
- The IRTF conducts research; it is not a standards development organisation
- While the IRTF can publish informational or experimental documents in the RFC series, its primary goal is to promote development of research collaboration and teamwork in exploring research issues related to Internet protocols, applications, architecture, and technology
- See "An IRTF Primer for IETF Participants" RFC 7418

Administrivia (I)

- (Blue sheets maintained by meetecho)
- Note-takers: https://notes.ietf.org/notes-ietf-interim-2022-t2trg-03-t2trg
- Jabber (= Meetecho chat)
 - xmpp:t2trg@jabber.ietf.org?join
- Mailing List: <u>t2trg@irtf.org</u> subscribe at: <u>https://www.ietf.org/mailman/listinfo/t2trg</u>
- Repo: https://github.com/t2trg/2022-12-summary

T2TRG scope & goals

- Open research issues in turning a true "Internet of Things" into reality
 - Internet where low-resource nodes ("things", "constrained nodes") can communicate among themselves and with the wider Internet
- Focus on issues with opportunities for IETF standardization
 - Start at the IP adaptation layer
 - End at the application layer with architectures and APIs for communicating and making data and management functions, including security

IRTF and IETF

IRTF (Research) T2TRG: open research issues with IETF potential

IETF (Engineering) CoRE: protocol engineering for RESTful environments
ASDF: engineering a format for IoT model convergence

LWIG: Informational guidance for implementers IOTOPS: Discussion of operational issues

Next meetings

- (Re)starting regular <u>WISHI</u> and SECCORE calls (~(bi-)monthly?)
- Summary meetings before/after IETF 116 & 117?
- Online meetings with other SDOs/alliances/open source communities?
- Further Work Meetings as needed?
- Physical meeting in 2023? F2F Fri before IETF 118 (Prague)?
- "Online co-locating" with academic conferences?

RG Doc Status

- Edge & IoT: RGLC & IRTF chair review done; IRSG review now
- RESTful Design for IoT: more PRs on the way
- Terminology and processes for initial security setup of IoT devices (was Secure IoT Bootstrapping): next slide

draft-irtf-t2trg-secure-bootstrapping

- New version –03
- Changes
 - Added initial beliefs/assumptions of the protocols
 - Added processes, i.e., steps for protocol completion
 - Added beliefs imparted, i.e., information configured
 - Added comparison of the different processes
- Reviews and feedback welcome

Agenda

| Time (UTC) | Who | Subject | Docs |
|------------|--------------------------------|---|--|
| 15:30 | Chairs / draft authors | Intro, RG status, upcoming meetings and activities | t2trg-rest-iot t2trg-iot-edge t2trg- secure-bootstrapping |
| 15:40 | Göran Selander | SECCORE update | |
| 15:50 | John Mattsson | Amplification attacks using CoAP | mattsson-t2trg-amplification- attacks |
| 16:05 | Michael Richardson | Update on "A Taxonomy of operational security considerations for manufacturer installed keys and Trust Anchors" | richardson-t2trg-idevid- considerations |
| 16:15 | Michael Koster | OneDM and iotschema.org update | |
| 16:25 | Carsten Bormann | SDF update and status | |
| 16:35 | Jan Romann | Brief W3C WoT update, SDF/WoT conversion | |
| 16:55 | Ale Jarabo Peñas / Bin Xiao | Knowledge graphs for IoT Platform Digital Twins based on SDF | |
| 17:25 | Chairs | Wrap-up | |
| 17:30 | Chairs | end of meeting | |