
Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)

Submission Title: SC IETF September Slides

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Source: Tero Kivinen Company -

E-Mail: kivinen@iki.fi

Re: SC IETF September Slides

Abstract:

Opening Report and slides for SC IETF September Meeting.

Purpose: Provide information which kind of changes are needed to the standard.

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Instructions for the WG Chair

- **The IEEE-SA strongly recommends that at each WG meeting the chair or a designee:**
 - **Show slides #1 through #4 of this presentation**
 - **Advise the WG attendees that:**
 - IEEE's patent policy is described in Clause 6 of the *IEEE-SA Standards Board Bylaws*;
 - Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
 - There may be Essential Patent Claims of which IEEE is not aware. Additionally, neither IEEE, the WG, nor the WG Chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
 - **Instruct the WG Secretary to record in the minutes of the relevant WG meeting:**
 - That the foregoing information was provided and that slides 1 through 4 (and this slide 0, if applicable) were shown;
 - That the chair or designee provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard
 - Any responses that were given, specifically the patent claim(s)/patent application claim(s) and/or the holder of the patent claim(s)/patent application claim(s) that were identified (if any) and by whom.
 - The WG Chair shall ensure that a request is made to any identified holders of potential essential patent claim(s) to complete and submit a Letter of Assurance.
 - It is recommended that the WG Chair review the guidance in *IEEE-SA Standards Board Operations Manual* 6.3.5 and in FAQs 14 and 15 on inclusion of potential Essential Patent Claims by incorporation or by reference.
- Note: **WG** includes Working Groups, Task Groups, and other standards-developing committees with a PAR approved by the IEEE-SA Standards Board.

Participants have a duty to inform the IEEE

- **Participants shall inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents**
- **Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims**
- **Early identification of holders of potential Essential Patent Claims is encouraged**

Ways to inform IEEE

- **Cause an LOA to be submitted to the IEEE-SA (patcom@ieee.org); or**
- **Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or**
- **Speak up now and respond to this Call for Potentially Essential Patents**
- If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

Other guidelines for IEEE WG meetings

- **All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.**
 - **Don't discuss the interpretation, validity, or essentiality of patents/patent claims.**
 - **Don't discuss specific license rates, terms, or conditions.**
 - Relative costs of different technical approaches that include relative costs of patent licensing terms may be discussed in standards development meetings.
 - **Technical considerations remain the primary focus**
 - **Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.**
 - **Don't discuss the status or substance of ongoing or threatened litigation.**
 - **Don't be silent if inappropriate topics are discussed ... do formally object.**
- **For more details, see *IEEE-SA Standards Board Operations Manual*, clause 5.3.10 and *Antitrust and Competition Policy: What You Need to Know* at <http://standards.ieee.org/develop/policies/antitrust.pdf>**

Patent-related information

- **The patent policy and the procedures used to execute that policy are documented in the:**
 - ***IEEE-SA Standards Board Bylaws***
(<http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6>)
 - ***IEEE-SA Standards Board Operations Manual*** (<http://standards.ieee.org/develop/policies/opman/sect6.html#6.3>)
- **Material about the patent policy is available at**
<http://standards.ieee.org/about/sasb/patcom/materials.html>
 - **If you have questions, contact the
IEEE-SA Standards Board Patent
Committee Administrator at
patcom@ieee.org**

INSTRUCTIONS FOR CHAIRS OF STANDARDS DEVELOPMENT ACTIVITIES

- **At the beginning of each standards development meeting the chair or a designee is to:**
 - Show the following slides (or provide them beforehand)
 - Advise the standards development group participants that:
 - IEEE SA's copyright policy is described in Clause 7 of the IEEE SA Standards Board Bylaws and Clause 6.1 of the IEEE SA Standards Board Operations Manual;
 - Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy;
 - Instruct the Secretary to record in the minutes of the relevant meeting:
 - That the foregoing information was provided and that the copyright slides were shown (or provided beforehand).

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- **By participating in this activity, you agree to comply with the IEEE Code of Ethics, all applicable laws, and all IEEE policies and procedures including, but not limited to, the IEEE SA Copyright Policy.**
 - Previously Published material (copyright assertion indicated) shall not be presented/submitted to the Working Group nor incorporated into a Working Group draft unless permission is granted.
 - Prior to presentation or submission, you shall notify the Working Group Chair of previously Published material and should assist the Chair in obtaining copyright permission acceptable to IEEE SA.
 - For material that is not previously Published, IEEE is automatically granted a license to use any material that is presented or submitted.

IEEE SA COPYRIGHT POLICY

- The IEEE SA Copyright Policy is described in the IEEE SA Standards Board Bylaws and IEEE SA Standards Board Operations Manual
 - IEEE SA Copyright Policy, see
 - Clause 7 of the IEEE SA Standards Board Bylaws
<https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7>
 - Clause 6.1 of the IEEE SA Standards Board Operations Manual
<https://standards.ieee.org/about/policies/opman/sect6.html>
- IEEE SA Copyright Permission
 - <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/permissionltrs.zip>
- IEEE SA Copyright FAQs
 - <http://standards.ieee.org/faqs/copyrights.html/>
- IEEE SA Best Practices for IEEE Standards Development
 - https://standards.ieee.org/develop/policies/best_practices_for_ieee_standards_development_051215.pdf
- Distribution of Draft Standards (see 6.1.3 of the SASB Operations Manual)
 - <https://standards.ieee.org/about/policies/opman/sect6.html>

Agenda for September

- Discuss what happened in IETF 114 in Philadelphia (July 23 – 29, 2022)

IETF 114

- IETF 114 was held between Monday 23th of July and Friday 29th of July in Philadelphia.
- The proceedings are available:
 - <https://datatracker.ietf.org/meeting/114/proceedings>

IETF 115

- IETF 115 will be held in Londong between 5th of November and 11th of November
- Just before the Bangkok IEEE Plenary
- Registration is open
 - <https://registration.ietf.org/115/>

Working groups to cover

- Raw – Reliable and Available Wireless
- 6lo – IPv6 over Networks of Resource-constrained Nodes
- Lpwan – IPv6 over Low Power Wide-Area Networks
- Lake – Lightweight Authenticated Key Exchange
- Suit – Software Updates for Internet of Things

Raw – Reliable and Available Wireless

- Did meet in IETF 114
 - [Agenda](#)
 - No minutes posted yet, but [notes](#) can be found in HedgeDoc
 - [Materials](#)
 - [Session recording](#)
- Document Status
 - In IESG Review
 - <https://datatracker.ietf.org/doc/draft-ietf-raw-ldacs/>
 - <https://datatracker.ietf.org/doc/draft-ietf-raw-use-cases/>
 - Awaiting write up
 - <https://datatracker.ietf.org/doc/draft-ietf-raw-technologies/>

Raw WG Documents

– WG Documents

- <https://datatracker.ietf.org/doc/draft-ietf-raw-architecture/>
- <https://datatracker.ietf.org/doc/draft-ietf-raw-framework/>
- <https://datatracker.ietf.org/doc/draft-ietf-raw-oam-support/>
- <https://datatracker.ietf.org/doc/draft-ietf-raw-industrial-requirements/>
(expired)

Raw Under Consideration

– Under Consideration

- <https://datatracker.ietf.org/doc/draft-bernardos-raw-joint-selection-raw-mec/>
- <https://datatracker.ietf.org/doc/draft-bernardos-raw-mec/>
- <https://datatracker.ietf.org/doc/draft-bernardos-raw-multidomain/>

6lo – IPv6 over Networks of Resource-constrained Nodes

- Did meet in IETF 114
 - [Agenda](#)
 - [Minutes](#)
 - [Materials](#)
 - [Session recording](#)
- Document status
 - In IESG Evaluation for 2 years
 - <https://datatracker.ietf.org/doc/draft-ietf-6lo-nfc/>
 - <https://datatracker.ietf.org/doc/draft-ietf-6lo-plc/>
 - Waiting for writeup
 - <https://datatracker.ietf.org/doc/draft-ietf-6lo-use-cases/>

6lo Work in progress

- Work in progress
 - IPv6 ND Multicast Address Listener Registration
 - <https://datatracker.ietf.org/doc/draft-ietf-6lo-multicast-registration/>
 - Transmission of SCHC-compressed Packets over IEEE 802.15.4
 - <https://datatracker.ietf.org/doc//draft-gomez-6lo-schc-15dot4/>
 - Native Short Address for LLN Expansion
 - <https://datatracker.ietf.org/doc/draft-li-6lo-native-short-address/>
 - Reliability Considerations of Native Short Addressing
 - <https://datatracker.ietf.org/doc/draft-li-nsa-reliability/>

Lpwan – IPv6 over Low Power Wide-Area Networks

- Did meet in IETF 114
 - [Agenda](#)
 - [Minutes](#)
 - [Materials](#)
 - [Session recording](#)
- Document status
 - IESG Evaluation
 - <https://datatracker.ietf.org/doc/draft-ietf-lpwan-schc-yang-data-model/>
 - AD Evaluation
 - <https://datatracker.ietf.org/doc/draft-ietf-lpwan-schc-over-nbiot/>

Lpwan Work in Progress

- Work in progress
 - <https://datatracker.ietf.org/doc/draft-ietf-lpwan-architecture/>
 - <https://datatracker.ietf.org/doc/draft-ietf-lpwan-schc-compound-ack/>
 - <https://datatracker.ietf.org/doc/draft-ietf-lpwan-schc-over-sigfox/>
- Planning for recharter to include for example ppp and 802.15.x

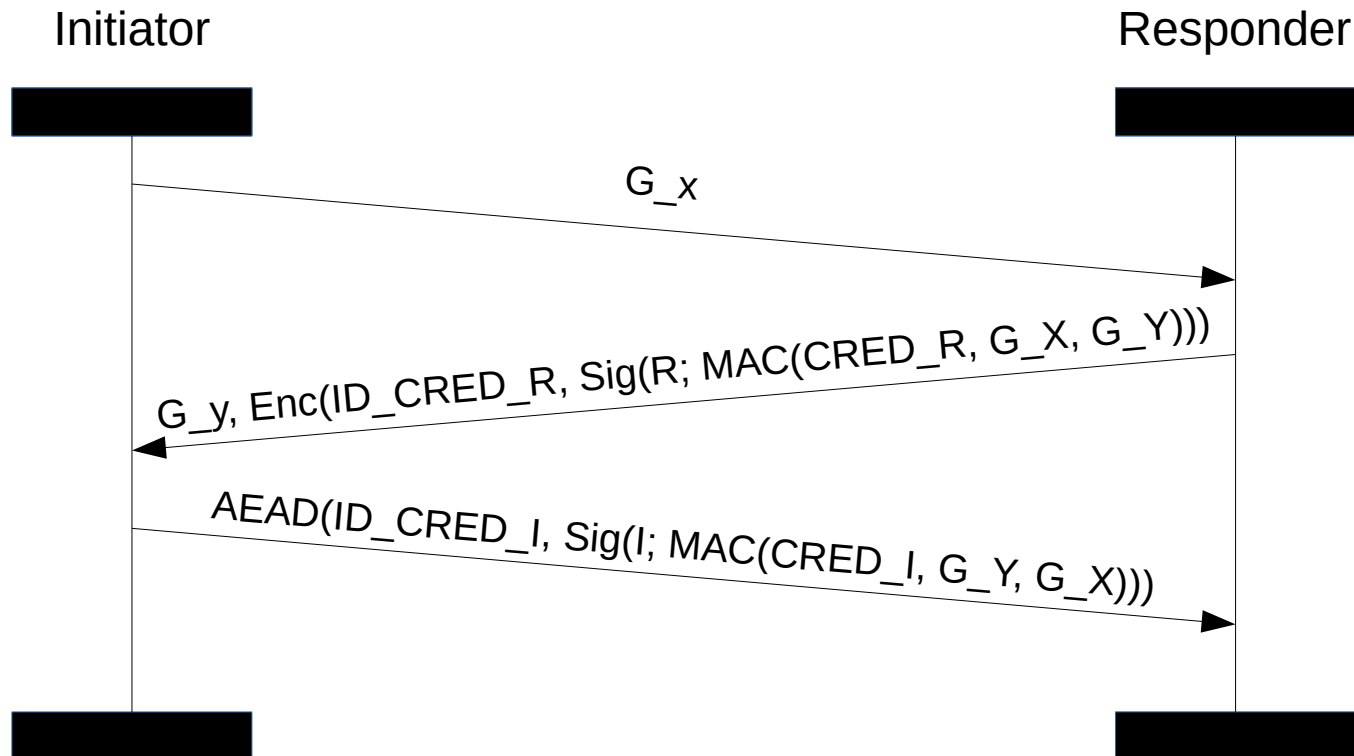
Lake – Lightweight Authenticated Key Exchange

- Did meet in IETF 114
 - [Agenda](#)
 - [Minutes](#)
 - [Materials](#)
 - [Session recording](#)
- Document status
 - Document is getting ready for WGLC. They wanted to finish formal security analysis before going forward.

Summary of EDHOC

- Ephemeral Diffie-Hellman over COSE
 - Very compact and lightweight
 - Authenticated Diffie-Hellman Key Exchange with ephemeral keys.
 - Provides mutual authentication, forward security, and identity protection.
 - Intended to be used in constrained scenarios, main use case is to establish an OSCORE security context.
 - Reuses COSE, CBOR and CoAP.
- 3 messages, sizes range from 37 to 115 bytes. Total size is around 100-250 bytes.

Outline of EDHOC protocol



MAC-then-Sign variant of the SIGMA-I protocol used by EDHOC

Suit – Software Updates for Internet of Things

- Did meet in IETF 114
 - [Agenda](#)
 - No minutes posted yet, but [notes](#) can be found in HedgeDoc
 - [Materials](#)
 - [Session recording](#)
 - They have indicated they will be meeting in IETF 115.
- Work in Progress
 - <https://datatracker.ietf.org/doc/draft-ietf-suit-manifest/>
 - <https://datatracker.ietf.org/doc/draft-ietf-suit-firmware-encryption/>
 - <https://datatracker.ietf.org/doc/draft-ietf-suit-report/>
 - <https://datatracker.ietf.org/doc/draft-ietf-suit-mud/>

BoFs in IETF 115

- List of requested BoFs can be found from <https://datatracker.ietf.org/doc/bof-requests>
- List of approved BoFs can be found from <https://datatracker.ietf.org/wg/bofs/>
- The list of bof request has some new request, and some updated old ones:
 - JSON Web Proofs (JWP)
 - Computing-Aware Networking
 - More Instant Messaging Interoperability
 - Application-Aware Networking
 - IPv6 Moving Object Networking (ipmon)
 - Time Variant Routing
 - Radius Extensions and Security
 - Secure Asset Transfer Protocol (SATP)
 - MIMI: More IM Interop
- Not going in to the details of the BoFs now.