



12 May 2017 Webex

IPv6 over the TSCCH
mode of IEEE 802.15.4

Chairs:

Pascal Thubert

Thomas Watteyne

Etherpad for minutes:

<http://etherpad.tools.ietf.org:9000/p/6tisch?useMonospaceFont=true>

Note Well

This summary is only meant to point you in the right direction, and doesn't have all the nuances. The IETF's IPR Policy is set forth in BCP 79; please read it carefully.

The brief summary:

- By participating with the IETF, you agree to follow IETF processes.
- If you are aware that a contribution of yours (something you write, say, or discuss in any IETF context) is covered by patents or patent applications, you need to disclose that fact.
- You understand that meetings might be recorded, broadcast, and publicly archived.

For further information, talk to a chair, ask an Area Director, or review the following:

- BCP 9 (on the Internet Standards Process)
- BCP 25 (on the Working Group processes)
- BCP 78 (on the IETF Trust)
- BCP 79 (on Intellectual Property Rights in the IETF)

Reminder:

Minutes are taken *

This meeting is recorded **

Presence is logged ***

* Scribe; please contribute online to the minutes at:

<http://etherpad.tools.ietf.org:9000/p/6tisch?useMonospaceFont=true>

** Recordings and Minutes are public and may be subject to discovery in the event of litigation.

*** From the Webex login



Agenda

- **Administrivia** [2min]
 - Agenda bashing
 - Approval minutes from last meeting
 - Addressing todo's from last time
 - News from PlugTest
- **6P finalization (Qin)** [20min]
- **SF0 finalization (Diego)** [20min]
- **Update on security (Michael/Malisa)** [10min]
- **AOB** [3min]

Last interim to-do's

- Thomas to contact Carsten
- Thomas to contact MR (@ETSI) and coordinate PlugTest
- Xavi and Qin to review SF0
- Jonathan to review 6P after Charlie's comments are addressed
- Xavi and Qin to address Charlie's comments
- Xavi to bootstrap research liaison

Update on 6P



Response to Charlie's comments

Regarding to editorial comments

[Response]: Accepted most of editorial comments.

Regarding to "Terminology"

CEP: "I think there should be a new section for "Terminology", and various TSCH, 6TiSCH, and 6top terms explained in that section for convenience."

[Response]: Most of terminologies mentioned by reviewer are in draft-ietf-6tisch-terminology

Suggested new terminologies:

- ✓ Transaction source
- ✓ Transaction destination

Regarding to technical comments:

1. ERR_EOL is defined as an error, but it is used as a flag for protocol signaling

[Response]: Replace ERR_EOL with EOL in the draft.

2. Why is any negotiation needed for node A to delete cells?

[Response]: For example, node A wants to delete 2 cells and candidates would be cell-1, cell-2, and cell-3, but node B's could have its preference in terms of PDR or QoS so a negotiation is needed.

3. If a negotiation is needed, then isn't NumCells needed somewhere in the message format?

[Response]: Yes, NumCells is needed. It is in the 6P DELETE Request

4. In Figure 13, If you have a Candidate CellList, don't you also need "NumCandCells"?

[Response]: No, because the length of the IE is given.

Regarding to technical comments (cont):

5. GEN and SeqNum play similar roles. The protocol could be cleaner if their roles were combined. Plus you would have more bits, making rollover far less frequent.
[Response]: GEN is for schedule inconsistency detection. And SeqNum is used to tell the association between Request and Reponse/Confirmation, especially in the concurrent situation. In another word, there are at least two cases which may make GEN not equal to SeqNum, one is when a transaction fail, another one is when concurrent transactions happen.

6. Not clear why LIST and COUNT are needed except possibly for reboot or operating system errors.

[Response]: COUNT may be useful when a LIST has to be issue to know in advance how many cells can be expected. LIST/COUNT are tools for an SF in order to have updated information of the schedule status of a neighbor node.

Regarding to technical comments (cont):

7. Not clear how to abort the CONFIRMATION step of a 3-step transaction.

----- OLD -----

In case the receiver of a 6P Request fails during a 6P Transaction and is unable to complete it, it SHOULD reply to that request with a 6P Response with return code ERR_RESET. Upon receiving this 6P Response, the initiator of the 6P Transaction MUST consider the 6P Transaction as failed.

----- NEW-----

In case the receiver of a 6P Request fails during a 6P Transaction and is unable to complete it, it SHOULD reply to that request with a 6P Response with return code ERR_RESET. Upon receiving this 6P Response, the initiator of the 6P Transaction MUST consider the 6P Transaction as failed.

Similarly, in the case of 3-step transaction, when the receiver of a 6P Response fails during the 6P Transaction and is unable to complete it, it SHOULD reply to that 6P Response with a 6P Confirmation with return code ERR_RESET. Upon receiving this 6P Confirmation, the sender of the 6P Response MUST consider the 6P Transaction as failed.

Regarding to technical comments (cont):

8. In Figure 14, is NumCells needed for the RELOCATE Response?
[Response]: No, because the length of the IE is given.

9. Some of the suggestions for SF specification seem impractical.

----- OLD -----
o MUST specify the behavior of a node when it boots.

CEP: Very doubtful. For instance, SF would NOT specify the list of supported SFs. It would not need to specify the number of kernel memory buffers.

-----NEW-----
o MUST specify the SF behavior of a node when it boots.

Remained issues:

1. About metadata

Current text about CLEAR:

Metadata: Same usage as for the 6P ADD command, see Section 4.3.1.

CEP: But that says the usage is defined by the SF. So, does this definition mean that the usage for ADD has to conform to the usage for CLEAR??

Another comment regarding to metadata:

CEP: Consider making the Metadata field optional.

[TODO]: Need more explanation about Metadata usage in the draft

Remained issues (cont):

2. Some of the suggestions for SF specification seem impractical

o MUST specify the list of statistics to gather. An example statistic is the number of transmitted frames to each neighbor. In case the SF requires no statistics to be gathered, the specific of the SF MUST explicitly state so.

CEP: What if there are multiple SFs and the node wants an aggregate?

o SHOULD clearly state the application domain for which the SF is created.

CEP: Very doubtful, unless there a registry of application domains?

o SHOULD contain a list of current implementations, at least during the I-D state of the document, per [RFC6982].

CEP: This implies a race condition, since changes to the document could cause previous implementations to become non-compliant.

o SHOULD contain a performance evaluation of the scheme, possibly through references to external documents.

CEP: Very doubtful, requiring highly nontrivial analysis.

o MAY redefine the format of the CellOptions field.

CEP: But the field is opaque...? Does it mean to change the number of bits?

[TODO]: discuss with SF0 authors

Remained issues (cont):

3. Suggested new terminology

---Transaction source

---Transaction destination

[TODO]: ask WG if it is necessary to add the suggested terminology to draft-ietf-6tisch-terminology

Update on SF0

Update on security

Design team meetings

Typically present:

Michael Richardson, Tero Kivinen, Pascal Thubert,
Thomas Watteyne, Mališa Vučinić, Göran Selander,
Toerless Eckert, Peter van der Stok

AOB ?



Thank you!