IPv6 over the TSCH mode of IEEE 802.15.4

IETF 99 Prague
Monday 17 July 2017

Chairs:
Pascal Thubert
Thomas Watteyne

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This meeting is recorded **
Presence is logged ***

* Scribe; please contribute online to the minutes at:
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*** From the Webex login
Agenda

13:30  Intro and Status (Chairs)  [35min]
   •  Note-Well, Blue Sheets, Scribes, Agenda Bashing  [5min]
   •  Status of the work; progress vs. charter  [5min]
   •  Summary 1st F-Interop 6TiSCH Interoperability Event (Maria Rita Palattella)  [10min]
   •  Summary OpenWSN hackathon (Tengfei Chang)  [5min]

13:55  Dynamic Scheduling  [25min]
   •  6top protocol  draft-ietf-6tisch-6top-protocol-07  (Xavi Vilajosana)  [15min]
   •  Service Function 0  draft-ietf-6tisch-6top-sf0-05  (Diego Dujovne)  [10min]

14:20  Security  [30min]
   •  draft-ietf-6tisch-minimal-security-03  (Mališa Vučinić)  [15min]
   •  update security DT and other derived work (Michael)  [15min]
   •  draft-ietf-6tisch-dtsecurity-secure-join-01
   •  draft-richardson-6tisch-join-enhanced-beacon-01
   •  draft-richardson-6tisch-minimal-rekey-01
Agenda

14:50 Unchartered items, time permitting  
  • draft-duquennoy-6tisch-asf (Simon Duquennoy)  [10min]  
  • draft-munoz-6tisch-examples-02 (Jonathan Muñoz)  [5min]  
  • draft-papadopoulos-6tisch-pre-reqs-00 (Georgios Papadopoulos)  [5min]  
  • draft-lijo-6lo-expiration-time-04 (Lijo Thomas)  [5min]  

15:25 AOB  

[QS]
Volunteers

- notetaker 1: Dominique Barthel
- notetaker 2: Francesca Palombini
- Jabber scribe: Ines Robles
- Jabber: Michael Richardson
IEEE 802.15.4 Information Element for the IETF

Abstract

IEEE Std 802.15.4 defines Information Elements (IEs) that can be used to extend 802.15.4 in an interoperable manner. The IEEE 802.15 Assigned Numbers Authority (ANA) manages the registry of the Information Elements. This document formulates a request for ANA to allocate a number from that registry for the IETF and describes how the IE is formatted to provide subtypes.
Minimal IPv6 over the TSCH Mode of IEEE 802.15.4e (6TiSCH) Configuration

Abstract

This document describes a minimal mode of operation for an IPv6 over the TSCH mode of IEEE 802.15.4e (6TiSCH) network. This minimal mode of operation specifies the baseline set of protocols that need to be supported and the recommended configurations and modes of operation sufficient to enable a 6TiSCH functional network. 6TiSCH provides IPv6 connectivity over a Time-Slotted Channel Hopping (TSCH) mesh composed of IEEE Std 802.15.4 TSCH links. This minimal mode uses a collection of protocols with the respective configurations, including the IPv6 Low-Power Wireless Personal Area Network (6LoWPAN) framework, enabling interoperable IPv6 connectivity over IEEE Std 802.15.4 TSCH. This minimal configuration provides the necessary bandwidth for network and security bootstrapping and defines the proper link between the IETF protocols that interface to IEEE Std 802.15.4 TSCH. This minimal mode of operation should be implemented by all 6TiSCH-compliant devices.
Milestones

New milestones for secure join work?

<table>
<thead>
<tr>
<th>Status</th>
<th>Milestone Description</th>
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<tr>
<td>Done</td>
<td>Second submission of draft-ietf-6tisch-minimal to the IESG</td>
</tr>
<tr>
<td>Done</td>
<td>WG call to adopt draft-ietf-6tisch-6top-sf0</td>
</tr>
<tr>
<td>Done</td>
<td>WG call to adopt draft-ietf-6tisch-6top-sublayer</td>
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<td>ETSI 6TiSCH #3 plugtests</td>
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<td>Dec 2016</td>
<td>Initial submission of draft-ietf-6tisch-6top-protocol to the IESG</td>
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<tr>
<td>Dec 2016</td>
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<tr>
<td>Dec 2016</td>
<td>Evaluate WG progress, propose new charter to the IESG</td>
</tr>
<tr>
<td>Apr 2017</td>
<td>Initial submission of 6TiSCH terminology to the IESG</td>
</tr>
<tr>
<td>Apr 2017</td>
<td>Initial submission of 6TiSCH architecture to the IESG</td>
</tr>
<tr>
<td>Dec 2017</td>
<td>6TiSCH architecture and terminology in RFC publication queue</td>
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