

Potential Areas for IETF/IEEE802 Coordination

0. Revision History

- 0.0 Initial Revision – 9/4/2012
- 0.1 revised for the period between 9/5 and 10/29
- 0.2 revised according to input received on 01, still reflects the 9/5–10/29 time interval
- 0.3 revised after the 10/29/12 meeting
- 0.4 revised for the period between 10/29 and 12/12
- 0.5 revised after the 12/17/12 meeting
- 0.6 revised for the period between 12/17/12 and 2/5/13
- 0.7 revised for the period between 2/5/13 and 4/30/13
- 0.8 revised after the 5/2/13 meeting
- 0.9 revised for the period between 5/2/13 and 9/22/13
- 0.10 revised after the 9/30 meeting
- 0.11 revised for the period between 9/30/13 and 1/22/14
- 0.12 revised after the 1/27/14 meeting
- 0.13 revised after the 6/18/14 meeting
- 0.14 revised with updates before the 9/29/14 f2f meeting
- 0.15 revised for the period between 9/29/14 and 1/20/15
- 0.16 revised for the period between 1/20/15 and 6/15/15
- 0.17 revised for the period between 6/16/15 and 8/12/15
- 0.18 revised for the period between 8/12/15 and 12/15/15
- 0.19 revised for the period between 12/15/15 and 1/28/16
- 0.20 revised for the period between 1/28/16 and 6/7/16
- 0.21 revised for the period between 6/7/16 and 8/15/16
- 0.22 revised for the period between 8/16/16 and 1/30/17

1. IETF TRILL Fine-grained labeling and IEEE 802.1 tags

1.1 Description – CLOSED

2. IETF BFD and IEEE 802.1AX

2.1 Description – CLOSED

(Note: draft-ietf-bfd-on-lags was approved by the IESG on 12/19/2013 and published as RFC 7130)

3. IETF NV03 and IEEE 802.1 DCB

3.1. Description

IEEE 802.1Qbg VDP might be used as the basis for the communication that NVO may need between an end system and an external box (e.g. bridge or router) doing the NVO encapsulation. Coordination will help determine if VDP is a suitable candidate and possibly to make any amendment needed in VDP for NVO usage.

Liaison statement from NV03 to IEEE 802.1 – about <http://datatracker.ietf.org/doc/draft-ietf-nvo3-hpvr2nve-cp-req/>. It was discussed at the IEEE 802.1 interim meeting in May 2015. PAR and CSD for 802.1Qcn– Amendment, VSI/VDP extensions for NV03 were submitted. A formal response will be provided at the July Plenary meeting. (DONE)

6/18: Pat Thaler reported that the project work is ongoing, and that 802.1 will likely send a liaison back to NV03 after the July meetings. She added that interim teleconferences will be used so that people can participate without having to attend a lot of face-to-face meetings.

9/29: IEEE 802.1Qcn PAR approved in June
Jan. 2016: editors identified (Li Yijhou, Paul Bottorf)

6/6: IEEE 802.1Qcn draft and meetings in progress

July 2016: P802.1Qcn/D0.3 posted

Aug. 2016: IETF LC for draft-ietf-nvo3-arch-06

Dec. 2016: Publication of RFC 8014

Jan. 2017: Call for review of <http://www.ieee802.org/1/files/private/cn-drafts/d0/802-1qcn-d0-4.pdf> by the NV03 WG - <https://www.ietf.org/mail-archive/web/nvo3/current/msg05927.html>

3.2. Relevant Documents

<https://datatracker.ietf.org/liaison/1219/>
<http://datatracker.ietf.org/wg/nvo3/charter/>
<http://datatracker.ietf.org/doc/draft-ietf-nvo3-overlay-problem-statement> - RFC 7364
<http://datatracker.ietf.org/doc/draft-ietf-nvo3-framework> - RFC 7365
<http://datatracker.ietf.org/doc/draft-ietf-nvo3-use-case>
<http://datatracker.ietf.org/doc/draft-ietf-nvo3-arch/>
<http://datatracker.ietf.org/doc/draft-ietf-nvo3-nve-nva-cp-req/>
<http://datatracker.ietf.org/doc/draft-ietf-nvo3-security-requirements/>
<https://datatracker.ietf.org/doc/draft-ietf-nvo3-geneve/>
<https://datatracker.ietf.org/doc/draft-ietf-nvo3-vxlan-gpe/>
<http://datatracker.ietf.org/doc/draft-ietf-nvo3-hpvr2nve-cp-req/>
<https://datatracker.ietf.org/liaison/1423/>
<http://www.ieee802.org/1/pages/802.1cn.html>
<https://datatracker.ietf.org/doc/rfc8014/>
<http://www.ieee802.org/1/files/private/cn-drafts/d0/802-1qcn-d0-4.pdf>

3.3. Owners - Alia Atlas, Pat Thaler

3.4. Action Items

- if no feedback is received until February 13, Alia and Pat will work together offline to identify reviewers for IEEE 802.1Qcn D0.4

4. IETF awareness of IEEE 802.1Q-2011

4.1. Description - CLOSED

5. Enabling use of Local Addresses for virtualization and IoT (was:

Effect of virtualization on IEEE 802 architecture)

5.1. Description

At the 7/25/12 f2f meeting Glenn Parsons presented a brief overview of the IEEE Registration Authority Committee (RAC) mission, highlighting the current RAC policy on virtualization and asking what virtualization policy would reduce the consumption of EUI-48 addresses. Norman Finn suggested this could be an area of collaboration between the IETF and the IEEE 802.

Status 4/30/13 – Glenn Parsons submitted an I-D and gave presentations at IETF-86 in the Technical Plenary, OPS and INT area meetings. The IEEE RAC will finalize and approve the proposal by June.

9/9/13: draft-ieee-rac-oui-restructuring-01.txt submitted

Status 1/14/14 (Bob Grow): Right now that would just be a RAC document,

7/14/14 – Pat Thaler and Don Pannell gave presentations on regarding concerns about potential global address consumption by IoT devices and feasibility of using local MAC addresses for such devices. Virtual machines usually have a hypervisor with a physical port with a global address to use to acquire a local MAC address for the VM and an orchestration system to provide the address. In contrast, a protocol for IoT devices should work without a global address for the physical port and should allow for operation with or without an address server.

<http://www.ieee802.org/1/files/public/docs2014/New-pannell-MAC-Address-Usage-0714-v1.pdf>

<http://www.ieee802.org/1/files/public/docs2014/new-addresses-thaler-local-address-acquisition-0714-v2.pdf>

9/13/14 IEEE 802.1 drafted a PAR for an Amendment to IEEE 802 Overview and Architecture, P802c Local Media Access Control (MAC) Addressing. If the PAR is approved, the amendment will describe using a portion of the address space for protocols assigning local addresses out of a CID block associated with the protocol. A portion of the local address space will continue to be used for assignment by local administrators. Forwarding the PAR will be considered at the November IEEE 802 meeting.

IEEE 802.1 is also considering a project to define a protocol for local address claiming (i.e. without an address server) and local address distribution using blocks from the CID space. The protocol would be usable by IoT devices that do not have a global address assignment.

November 2014 – IEEE 802.1 approved the formation of the IEEE 802.1 Local Address Study Group (LASG)

January 2015 – First meeting of the LASG at the Atlanta IEEE 802.1 Interim. PARs and CSDs for the SG formation and a possible Local Address Assignment Protocol were drafted for discussions.

March 2015 – Approval of the P802c project

June 2015 – Ralph Droms will monitor this and see if it will be of interest to the IETF.

9/29: working on PAR on protocols for local address acquisition

IEEE 802.1CQ – Multicast and Local Address Assignment – approved after the November IEEE 802 Plenary

Jan 2016: P802c D0.1 available and discussed at the January 2016 interim

June 2016: P802c D0.2 – TF ballot, comment resolution at the May 2016 interim meeting

June 2016: initial version of a new PAR proposal for a Link-local Registration Protocol circulated on the WG mail list

June 2016: WG ballot for P802c/D1.0

July 2016: submission of rfc7042bis I-D

Aug. 2016: second WG ballot for P802c/D1.

Jan. 2017: P802c is in Sponsor Ballot.

Jan. 2017: There may be some interest in using DHCP to assign MAC addresses.

5.2. Relevant Documents

<http://www.iab.org/2012/12/13/proposed-ieee-registration-authority-committee-oui-tier-restructuring/>
<http://www.ietf.org/proceedings/86/slides/slides-86-iab-techplenary-5.pdf>
<https://datatracker.ietf.org/doc/draft-ieee-rac-oui-restructuring/>
<http://standards.ieee.org/develop/regauth/tut/eui.pdf>
<http://www.ieee802.org/1/pages/802c.html>
<http://www.ieee802.org/1/files/public/docs2015/dcb-thaler-1CQ-par-local-address-prot-1015-v0.pdf>
<http://www.ieee802.org/1/files/public/docs2015/dcb-thaler-1CQ-csd-local-address-prot-1015-v0.pdf>
<http://www.ieee802.org/1/files/private/802-c-drafts/d0/802c-d0-2.zip>
<https://tools.ietf.org/html/draft-eastlake-rfc7042bis-00>

5.3. Owners – Glenn Parsons, Pat Thaler, Ralph Droms

– Circulate relevant documents (PAR proposals, drafts in ballot) for review and discussions

– Suresh Krishnan, Russ Housley, Ralph Droms, and Pat Thaler will discuss offline the possible usage of DHCP as MAC assignment protocol.

6. IETF EMU and IEEE 802.1X, 802.11 and 802.16 security based on EAP
6.1. Description – CLOSED

7. IETF Ethernet MIB, ADSL MIB and IEEE 802.3
7.1. Description – CLOSED, see RFC 7124 and RFC 7448

8. IETF 6LOWPAN and IEEE 802.15
8.1. Description – CLOSED

9. IETF PAWS WG and 802.11, 802.19, 802.22
9.1 Description – CLOSED, see RFC 7545

10. IETF IPPM and LMAP, and IEEE 802.16 Metrology Study Group– CLOSED,
will reopen if/when it becomes clear that interaction is needed

11. IETF and IEEE 802.1 OmniRAN TG
11.1. Description

The 802.1 OmniRAN TG is authorized to create a recommended practice on Network Reference Model and Functional Description of IEEE 802 Access Network (IEEE P802.1CF). The project specifies an access network reference model, including entities and reference points along with behavioral and functional descriptions of communications among those entities to provide a generic model of IEEE 802 access network for connecting terminals to their access routers over a link based on the family of IEEE 802 Standards. The specification describes the use of IEEE 802 technologies to build heterogeneous access networks, which may include multiple network interfaces, multiple network access technologies, and multiple network subscriptions, aimed to unify the support of different interface technologies, enabling shared network control and use of software defined network (SDN) principles.

9/29/15: see status at <https://www.iab.org/wp-content/IAB-uploads/2015/09/omniran-15-0046-00-00TG-sept-2015-status-report-to-802wgs.pptx>

2/1/16: OmniRAN TG created first draft of specification and currently focuses on creation of initial text for all open sections. A draft with all sections addressed is expected after the Jul 2016 IEEE 802 plenary meeting and is intended to be shared with IETF for feedback and review.

6/6/16: OmniRAN TG met at the interim meeting in May 2016. A status report is available. TG ballot expected after the July 2016 plenary, will be distributed to the IETF

Aug 2016: TG ballot of IEEE 802.1CF/D0.2

OmnIRAN will meet at the IEEE wireless interim meeting in Sep. 2016

Jan. 2017: The latest status of the P802.1CF specification was presented to the IETF at the IETF meeting in Korea in November and offered interested individuals of IETF access to the document.

<https://mentor.ieee.org/omniran/dcn/16/omniran-16-0087-02-00TG-brief-introduction-to-p802-1cf.pdf>

OmnIRAN TG did not receive yet comments from IETF participants.

11.2. Relevant Documents

Project status: <http://www.ieee802.org/1/pages/802.1cf.html> w/ link to draft documents

OmnIRAN TG Wiki: <https://mentor.ieee.org/omniran/bp/StartPage>

<http://www.ieee802.org/1/files/private/cf-drafts/d0/802-1cf-d0-2.pdf>

<https://mentor.ieee.org/omniran/dcn/16/omniran-16-0033-00-00TG-may-2016-status-report-to-802wgs.pptx>

<https://mentor.ieee.org/omniran/dcn/16/omniran-16-0087-02-00TG-brief-introduction-to-p802-1cf.pdf>

11.3. Owners – Max Riegel

11.4. Action Items

– The IEEE will send relevant documents for review by the IETF

– Suresh Krishnan will take the current draft of P802.1CF-D0.3 to the Internet Area mailing list and ask for feedback to be sent to Max Riegel.

12. IETF HOKEY and IEEE 802.21

12.1. Description CLOSED

13. IETF MIF and IEEE 802.21 – CLOSED.

14. IETF IPFIX Information Elements for Data Link monitoring – CLOSED, see RFC 7133

15. IETF RADIUS attributes for IEEE 802 networks – CLOSED, see RFC 7268

16. IEEE802.1Q SRP (and Gen2 updates) and RSVP/SIP – CLOSED

17. IEEE 802.1AS/1588 and NTP – CLOSED

18. 802.1AS/1588, 802.1Q time aware shaper(s) and RTP – CLOSED

19. Common OAM proposal / Layer Independent OAM

19.1. Description – proposal made by Tissa Senevirathne and a group of TRILL contributors at the IEEE 802.1 meetings in July and September to reuse the IEEE 802.1ag frame format for TRILL OAM. Needs coordination and architectural consistency with the IEEE 802.1 architecture and OAM practice.

– 8/20/13: The TRILL WG re-chartered, new charter includes OAM. Rechartering was communicated on the mail list.

– 9/25/13: Liaison Statement sent by the TRILL chairs to the IEEE 802 informing on the status of the work.

– 12/9/13: draft-ietf-trill-oam-framework approved by the IESG

– 1/22/14: new liaison statement sent by TRILL to IEEE 802.1

– Status 1/27/14 (Norman Finn, Donald): liaison from TRILL asking for code points from the Connectivity Fault Management protocol, Ethernet OAM, as was done with ITU a few years back. It allocates the blocks of code points to the IETF with the understanding that they will be assigned by IANA based on IETF Standards Actions and TRILL will be an early user of some values. Expected to pass.

– Status 9/15/14 (Dan Romascanu): New Non-WG Mailing List: Lime -- Layer Independent OAM Management in Multi-Layer Environment (LIME) discussion list – <https://www.ietf.org/mailman/listinfo/lime>. Working on a charter, may request a BOF at IETF-91

– Status 1/20/15 (Dan): while most of the TRILL OAM work progresses, the LIME WG was formed and its charter explicitly calls for coordination with other SDOs including the IEEE

– Status 6/15/15 (Dan): TRILL – MIB work waiting for expert review, YANG document in WG; LIME – no WG I-Ds yet

– August 2015: call for adoption of draft-tissa-lime-yang-oam-model-06 as LIME WG document in LIME, announcement sent to the ieee-ietf list, now <http://datatracker.ietf.org/doc/draft-ietf-lime-yang-oam-model/>

– Individual submission to follow: <http://datatracker.ietf.org/doc/draft->

[zhuang-lime-yang-oam-model-applicability/](#) (applicability document)

- [draft-ietf-trill-oam-mib-11.txt](#) approved by the IESG and published as RFC 7784

Status 6/6: TRILL work on OAM seems completed by now; LIME work continues with one adopted WG document

Jan. 2017 - no status provided, expecting status from Benoit Claise and the LIME WG chairs.

19.2. Relevant Documents

<https://datatracker.ietf.org/doc/draft-ietf-trill-oam-req> - published as RFC 6905

<http://www.ieee802.org/1/files/public/docs2012/liaison-tissa-oam-ieee-trill-0912-v02.pptx>

<https://datatracker.ietf.org/doc/draft-ietf-trill-oam-framework/> - published as RFC 7174

<https://datatracker.ietf.org/doc/draft-tissa-trill-oam-fm/> published as RFC 7455

<http://datatracker.ietf.org/wg/trill/charter/>

<http://ieee802.org/1/files/public/docs2014/new-senevirathne-trill-oam-liaison-0114-v01.pptx>

<http://datatracker.ietf.org/doc/draft-ietf-trill-yang-oam/> expired and archived

<http://datatracker.ietf.org/doc/draft-ietf-trill-oam-mib/> published as RFC 7784

<https://datatracker.ietf.org/liaison/1302/>

<http://datatracker.ietf.org/wg/lime/charter/>

<http://datatracker.ietf.org/doc/draft-ietf-lime-yang-oam-model/>

<https://datatracker.ietf.org/doc/draft-ietf-lime-yang-connectionless-oam-methods/>

<http://datatracker.ietf.org/doc/draft-zhuang-lime-yang-oam-model-applicability/>

<https://datatracker.ietf.org/doc/draft-ietf-lime-yang-connectionless-oam/>

19.3. Owners - Alia Atlas, Benoit Claise, Norm Finn

19.4. Action Items

Follow the TRILL OAM documents progress in the WG and send them for review to IEEE 802.1 when they reach milestones (WGLC, IETF LC)

This work item will remain open to monitor the status, as well as other more OAM-related I-Ds in the TRILL Working Group that should be reviewed by IEEE 802.1.

TRILL and LIME documents to be communicated for review when relevant to the IEEE 802 (at LC)

20. Area Name – use of TRILL as an alternative path selection protocol for use in 802.11 mesh networks

20.1. Description – CLOSED

21. 6tisch

21.1. Description:

Enable communication and cross-review between the 6tisch WG and IEEE 802

– In IEEE 802.15: (Bob): Go to the 802.15 website and look for L2R under public docs. The group formed in March with a goal to spend 6 months to end up at a project point.

– Status 9/22 – 6tisch charter in external review, on IESG agenda for 9/26, external review message distributed

– Status 9/30/13 (Ted): WG was chartered

– Presentation by Pascal Thubert at the IEEE 802 plenary – <https://mentor.ieee.org/802.15/dcn/13/15-13-0685-00-wng0-6tisch-802-1-for-a-new-ipv6-multilink-subnet.pptx>

– Status 6/18/14: Bob Heile updated that they have set up a group in 802.15 that would be the companion to the IETF 6TISCH. There has been a lot of cross-participation. Pat Kinney mentioned that they were participating with the weekly calls and a number of are planning to attend IETF 90.

– Status 9/14 (Bob Heile): IEEE 802.15.4 has formed an Interest group for 6TiSCH, the 6t IG. The group met at the IEEE with good feedback on the IETF WG work.

– Status 12/15: Mail from Michael Richardson asking about the need to establish a formal liaison between 6tisch and IEEE 802.15.4

– Discussions at IETF 94 about planned par on IEEE 802.15 LLC. Charlie Perkins made presentation with INTAREA.

- September 2015, status from Pascal Thubert: - 6tisch is working on rechartering to integrate dynamic scheduling, that is dynamic allocation of time slots between peer routers to adapt to IP flows. This involves activity in the 6top layer and protocol elements over the wire(less).
- 802.15.4 is forming a group to work on LLC. Ultimately the 6top layer and related protocol elements should belong there; so there will be a need for splitting responsibilities and transfer.
- Request for a 6lowpan Ethertype: Dan suggest on email to the IESG to request for an "early allocation" for IPv6 with 6lowpan header compression work
- IEEE 802.15.4 approved (December 2015)
- January 2016: IEEE 802.15.12 Upper Layer Interface (ULI) Project Authorization Request (PAR) approved by the 801.15 WG, will be discussed for approval by 802 and EC at the March IEEE 802 plenary; comments welcome at stds-802-15-llc@listserv.ieee.org
- January 2016: 6TiSCH is pursuing its effort to recharter, including std work on the 6top sublayer. 6Top may ultimately fall beneath the 15.12 boundary and if so well need to preserve the APIs and the air interface
- IEEE 802.15.12 approved by IEEE 802
- March 2015: P802.15.9 (C/LM) Recommended Practice for Transport of Key Management Protocol (KMP) Datagrams was approved as a new standard by the IEEE-SA Standards Board

June 2016: The development of the 6P protocol is going on well at 6TiSCH and an ETSI plugtest should be run on July 15-16 right before the IETF. Thanks to IEEE cross participation the WG received recommendations on how to do the signaling. How / when to handoff to .12 has not been discussed yet. The expectation would be that an RFC will be within a year from now, and that 802.12 will be ready to take over by then.

July 2016: ETSI plugtest

August 2016: [draft-ietf-6lo-ethertype-request-01](#) approved for publication

Jan. 2016: Pascal Thubert reported that work on the draft is progressing. Pat Kinney reported that from the 802.15.12 side, it will include things like 6lowpan and 6tsich. They have finished the architecture and are now working on over-the-air interfaces.

21.2. Relevant Documents

- Mail list <https://www.ietf.org/mailman/listinfo/6tsch>
- <https://datatracker.ietf.org/wg/6tisch/charter/>
- <https://datatracker.ietf.org/doc/draft-ietf-6tisch-architecture/>
- <https://datatracker.ietf.org/doc/draft-ietf-6tisch-minimal/>
- <https://datatracker.ietf.org/doc/draft-ietf-6tisch-terminology/>
- <http://datatracker.ietf.org/doc/draft-ietf-6tisch-coap/>
- <http://datatracker.ietf.org/doc/draft-ietf-6tisch-6top-interface/>
- <http://datatracker.ietf.org/doc/rfc7554/>
- <https://www.ietf.org/proceedings/94/slides/slides-94-6lo-14.pdf>

- <https://mentor.ieee.org/802.15/dcn/15/15-15-0760-07-011c-802-15-12-par-draft.pdf>

21.3. Owners: Suresh Krishnan, Bob Heile

21.4. Action Items

- follow the activities in the IETF and IEEE 802.15, share information informally until activities are chartered

- Follow the activities; send relevant documents from the 6tisch WG as they reach Last Call stages.

- Follow formation of 6LPWA WG following BOF at IETF 96. Open new coordination item if needed.

- Send request to the IEEE RAC following the approval of draft-ietf-6lo-ethertype-request-01 - DONE

22. CAPWAP extensions in OPSAWG

22.1. Description:

- Extensions to the CAPWAP protocol are being defined in the IETF OPSAWG. The OPSAWG will send the documents that relate to IEEE 802.11 technology to the IEEE 802.11 WG for expert review.

- Status 1/27/14 (Benoit Claise) - there are two relevant drafts in Working Group Last Call. He sent out via email an updated description of this item, to be added to the next iteration of the shared work items list. Dan Romascanu will edit the shared work items list accordingly.

- Status 9/23/14 (Dorothy Stanley): Liaison requests have been made from the opsawg to IEEE 802.11 for review and comment on each of these documents. The IEEE 802.11 responded with the liaisons below. There are no open liaison requests from opsawg to IEEE 802.11 at this time.

- Status 1/20/15 (Dan): 2 out of 3 documents were approved by the IESG and are now in RFC Editor Queue

- Status 6/15/15 (Dan): one WG document pending (in AD is watching state) <http://datatracker.ietf.org/doc/draft-ietf-opsawg-capwap-alt-tunnel/>; one individual submission <http://datatracker.ietf.org/doc/draft-you-opsawg-capwap-separation-for-mp/>.

- Status 6/18/15 (Benoit): RFC 7494, IEEE 802.11 Medium Access Control (MAC) Profile for Control and Provisioning of Wireless Access Points (CAPWAP), has been published. A second document on the OPSAWG CAPWAP tunnel is nearly ready for Working Group Last Call; he will let 802.11 know when that is done.

- Status 9/29/15 (Benoit): draft-ietf-opsawg-capwap-alt-tunnel (Alternate Tunnel Encapsulation for Data Frames in CAPWAP) will merge with draft-you-opsawg-capwap-separation-for-mp (CAPWAP Control and Data Channel Separation

for Multi-provider Scenario)

- Aug. 2016: draft-ietf-opsawg-capwap-alt-tunnel was submitted by the WG to the IESG, now in AD review

- Jan. 2017: one pending document left - <http://datatracker.ietf.org/doc/draft-ietf-opsawg-capwap-alt-tunnel/> - was submitted by the IESG and returned to the WG after IESG review. New editor was identified, progress expected in February 2017.

22.2. Relevant Documents

- <http://datatracker.ietf.org/doc/draft-ietf-opsawg-capwap-extension/>
- [http://datatracker.ietf.org/doc/draft-ietf-opsawg-capwap-hybridmac - RFC 7494](http://datatracker.ietf.org/doc/draft-ietf-opsawg-capwap-hybridmac-RFC-7494)
- <http://datatracker.ietf.org/doc/draft-ietf-opsawg-capwap-alt-tunnel/> - approved
- <https://datatracker.ietf.org/liaison/1312/>
- <https://mentor.ieee.org/802.11/dcn/14/11-14-0913-01-0000-liaison-response-opsawg-capwap-extension.docx>
- <https://mentor.ieee.org/802.11/dcn/14/11-14-0684-01-0000-capwap-hybridmac-liaison-response.docx>
- Tunnel encapsulation response: slide 5 in <https://mentor.ieee.org/802.11/dcn/14/11-14-0500-00-0000-may-2014-liaison-to-ietf-report.pptx>
- <http://datatracker.ietf.org/doc/draft-you-opsawg-capwap-separation-for-mp/>
- <http://www.rfc-editor.org/rfc/rfc7494.txt>

22.3. Owners: Benoit Claise and Dorothy Stanley

22.4. Action Items

- Benoit to ensure that OPSAWG chairs send documents at Last Call to IEEE 802.11
- Dorothy Stanley to channel requests for reviews and responses between the OPSAWG and IEEE 802.11
- Clarify status of <http://datatracker.ietf.org/doc/draft-ietf-opsawg-capwap-extension/> and <http://datatracker.ietf.org/doc/draft-ietf-opsawg-capwap-alt-tunnel/> -- confirm with Benoit that draft-ietf-opsawg-capwap-extension is dead
- Close when last item done

23. Area Name - naming in layer 2 networks

23.1. Description

CLOSED

24. Area Name - coordination between the IETF and IEEE 802 on Pervasive Monitoring

24.1. Description

The IETF has reached consensus in RFC7258 that pervasive monitoring ought be treated as with other threats in the development of IETF protocols. The IEEE 802 started an IEEE 802 Executive Committee (EC) Privacy Recommendation SG which will study privacy issues related to IEEE 802 technologies and consider the need for a recommended practice applicable to IEEE 802 protocols. Given that IETF protocols often run over IEEE protocols, their privacy properties are intertwined. It would therefore be useful if both organizations consider the privacy issues related to usages of combinations of their protocols. For example, consideration of how MAC addresses may impinge on the privacy properties of higher layer protocols seems like an obvious area to examine. This work item could identify how IEEE and IETF protocols together can make privacy better or worse and feed into the normal development processes of both organizations.

- A PAR and CSD for Privacy Recommendation EC Study Group - Recommended Practice, Privacy Considerations for IEEE 802 Technologies was submitted and sent for review to the IETF

- July 2015: The Privacy Recommendation PAR and CSD were approved yesterday at the 802 Executive Committee closing meeting. They will now be forwarded to NesCom for final approval

- September 2015: Privacy Recommendation now within scope of IEEE 802.1 Security TF as IEEE 802E

- May 2016: Draft 04 of IEEE 802E available

24.2. Relevant Documents

<http://www.ieee802.org/PrivRecsg/index.html>

<https://mentor.ieee.org/privrecsg/dcn/15/privrecsg-15-0004-03-0000-privacy-recommendation-par-csd-proposal.pptx>

<https://mentor.ieee.org/privrecsg/dcn/15/privrecsg-15-0006-01-ecsg-privacy-recommendation-par-proposal.pdf>

<https://mentor.ieee.org/privrecsg/dcn/15/privrecsg-15-0004-04-0000-privacy-recommendation-par-csd-proposal.pptx>

<https://mentor.ieee.org/privrecsg/dcn/15/privrecsg-15-0030-00-ecsg-privacy-ecsg-par-proposal.pdf>

<https://mentor.ieee.org/privrecsg/dcn/15/privrecsg-15-0029-01-0000-privacy-ecsg-csd-proposal.docx>

<http://www.ieee802.org/1/pages/802e.html>

<http://www.ieee802.org/1/files/private/802-e-drafts/d0/802E-d0-04.pdf>

24.3. Owners: Stephen Farrell, Juan Carlos Zuniga

24.4. Action Items

- send information about TG ballot level draft when available

25. Area Name - Layer2/Layer 3 Interaction for Time-Sensitive Traffic

25.1. Description

The Deterministic Networking (DetNet) Working Group focuses on deterministic data paths that operate over Layer 2 bridged and Layer 3 routed segments, where such paths can provide bounds on latency, loss, and packet delay variation (jitter), and high reliability. The Working Group addresses Layer 3 aspects in support of applications requiring deterministic networking. The Working Group collaborates with IEEE802.1 Time Sensitive Networking (TSN), which is responsible for Layer 2 operations, to define a common architecture for both Layer 2 and Layer 3. Example applications for deterministic networks include professional and home audio/video, multimedia in transportation, engine control systems, and other general industrial and vehicular applications being considered by the IEEE 802.1 TSN Task Group.

- July 2015: BoF held at IETF 93. Chartering decision now with the IESG
- September 2015: DetNet WG chartered
- 6TiSCH is establishing requirements for detnet: <https://tools.ietf.org/html/draft-thubert-6tisch-4detnet-01>
- November 2015: Detnet WG hold its first meeting at IETF 94
- January 2016: use case I-D adopted as WG document, data plane I-D in preparation
- April 2016: Problem statement I-D adopted as WG item
- August 2016: draft-finn-detnet-architecture and draft-dt-detnet-dp-alt candidates for WG adoption
- Jan. 2017 - Jouni Korhonen reported that the design team hopes to have a first cut of the data plane draft available within the next couple of weeks.

25.2. Relevant Documents

- <https://www.ietf.org/mailman/listinfo/detnet>
- <http://trac.tools.ietf.org/bof/trac/wiki/DetNet>
- <https://tools.ietf.org/html/draft-gunther-detnet-proaudio-req>
- <https://tools.ietf.org/html/draft-wetterwald-detnet-utilities-reqs>
- <https://tools.ietf.org/html/draft-korhonen-detnet-telreq>
- <https://tools.ietf.org/html/draft-thubert-6tisch-4detnet>
- <https://tools.ietf.org/html/draft-finn-detnet-problem-statement>
- <https://tools.ietf.org/html/draft-finn-detnet-architecture>
- <http://datatracker.ietf.org/wg/detnet/charter/>
- <https://datatracker.ietf.org/doc/draft-ietf-detnet-use-cases/>
- <https://datatracker.ietf.org/doc/draft-ietf-detnet-problem-statement/>
- <https://datatracker.ietf.org/doc/draft-ietf-detnet-architecture/>
- <https://datatracker.ietf.org/doc/draft-ietf-detnet-dp-alt/>

25.3. Owners: Deborah Brungard, Norm Finn

25.4. Action Items

- Ensure that relevant documents are circulated between IEEE 802.1 and DetNet at balloting and Last Call milestones

26. Area Name – IS-IS extensions for IEEE 802.1Qca – CLOSED

27. Area Name – development of YANG models in the IEEE 802

27.1. Description

– Following the IESG statement in 2014 and the IETF YANG tutorial at the July 2014 IEEE 802 plenary, the IEEE 802.1 started to discuss the introduction of YANG modules, which may result soon in a IEEE 802.1 project. Other IEEE 802 WGs may follow the same path. The IETF and IEEE will work to support the formation of YANG expertise in the IEEE 802.

– Update 6/15 (Dan): PAR and CSD proposals for two projects were submitted: 802.1Qcl Amendment, YANG Data Model (for IEEE 802.1Q); 802.1Xck Amendment, YANG Data Model (for IEEE 802.1X)

– Update July 2015: PAR and CSD approved by EC, sent to NesComm

– Update July 15: use of GitHub for all YANG modules (including IEEE 802) discussed by Glenn Parsons with Benoit Claise and YANG doctors at IETF 93; Glenn also discussed the authoring of an I-D (RFC to be) to request URN space for the IEEE as per RFC 3406

– IETF draft for IEEE URN, by Mahesh

– Update September 2015: Two projects approved in IEEE 802.1: 802.1Qcp – Bridges and Bridged Networks Amendment: YANG Data Model, and 802.1Xck – Port-Based Network Access Control Amendment: YANG Data Model

– Update November 2015: Design Team in place for design of YANG modules for IEEE 802.3

– Update January 2016: considering a CFI at March 2016 plenary in Macau, but the actual work in developing YANG code has already been started as DT – the main problem right now is the lack of review and feedback

– March 2016: study group formed for YANG modules in IEEE 802.3

– March, May 2016: new drafts for YANG modules in IEEE 802.1, P802.3Qcp in TG ballot

– March, May 2016: issue with VLAN modelling in IEEE YANG models in netmod WG; teleconference and face2face discussions at May interim

– liaison sent by the IETF OPS AD to IEEE 802.1, discussed at the IEEE 802.1 Plenary

– Jan. 2017: Robert Wilton updated the group on the 802.3 Ethernet Interface YANG Task Force (802.3cf) and RMON MIB (RFC 3635). The slides are available at <https://www.iab.org/wp-content/IAB-uploads/2013/01/wilton_8023cf_ethernet_interface_statistics.pdf>. Robert Wilton asked if there are concerns about the current approach. The group suggested that he checks with Benoit Claise and the chairs of the NETMOD and CCAMP WGs to for additional feedback.

27.2. Relevant Documents

http://www.ieee802.org/802_tutorials/2014-07/Tutorial_Berman_1407.pdf

<http://www.ieee802.org/1/files/public/docs2015/new-802-mahesh-yang-0115-v01.pdf>
<http://www.ieee802.org/1/files/public/docs2015/cl-draft-1Q-YANG-par-0615-v02.pdf>
<http://www.ieee802.org/1/files/public/docs2015/cl-draft-Qcl-csd-0615-v1.docx>
<http://www.ieee802.org/1/files/public/docs2015/ck-draft-1X-YANG-par-0615-v02.pdf>
<http://www.ieee802.org/1/files/public/docs2015/ck-draft-Xck-csd-0615-v1.docx>
<https://mentor.ieee.org/802.15/dcn/15/15-15-0324-00-0000-p802-15-3-revision-par-detail-draft.pdf>
<https://mentor.ieee.org/802.15/dcn/15/15-15-0332-00-0000-15-3r1-draft-csd.docx>
<http://www.ieee802.org/1/pages/802.1cp.html>
<http://www.ieee802.org/1/pages/802.1ck.html>
<https://github.com/8023YangDesignTeam/EthernetYang>
<https://datatracker.ietf.org/doc/draft-wilton-netmod-intf-vlan-yang/>
<https://datatracker.ietf.org/doc/draft-ietf-netmod-intf-ext-yang/>
<http://www.ieee802.org/1/files/private/cp-drafts/d1/802-1Qcp-d1-0.pdf>
<http://www.ieee802.org/1/files/private/ck-drafts/d1/802-1Xck-d1-0.pdf>
https://www.iab.org/wp-content/IAB-uploads/2013/01/wilton_8023cf_ethernet_interface_statistics.pdf

27.3. Owners – Benoit Claise, Marc Holness

27.4. Action Items

- send relevant YANG modules for review
- coordinate on VLANs YANG models
- Benoit Claise to identify a YANG doctor to review the 2 models being worked on in 802.1 when they come to WG phases

28. Area Name – Multicast on IEEE 802 wireless networks

28.1. Description

CLOSED

Tutorial materials used at IETF 97 are available at:

- https://www.youtube.com/watch?v=H5nskJAV00I&list=PLC86T-6ZTP5gtLuoSjpTGO_mS5Ly2pfIS&index=128 (video recording)
- <https://www.ietf.org/proceedings/97/slides/slides-97-edu-80215-projects-summary-overview-00.pptx>
- <https://www.ietf.org/proceedings/97/slides/slides-97-edu-sessg-ieee-802-wireless-tutorial-00.ppt>

29. Area Name – Opportunistic Wireless Encryption (OWE)

29.1. Description

- the IETF has received a proposal from individual submitters to develop an RFC on Opportunistic Wireless Encryption (OWE). The OWE Internet-Draft is

approved will require two assignments from IEEE 802.11 ANA to advance to RFC status. As the area director who has been asked to sponsor the OWE Internet-Draft I would like to request that the IEEE 802.11 ANA consider assigning an 'Authentication and Key Management Suite (AKM)' to indicate OWE in an AP's beacons and probe responses and an Element to convey Diffie-Hellman public keys during the OWE exchange

– STATUS: The Internet-Draft is on the agenda of the IESG meeting scheduled for 2/2.

29.2. Relevant Documents

– <https://datatracker.ietf.org/doc/draft-harkins-owe/>

– <https://datatracker.ietf.org/liaison/1486/>

29.3. Owners: Stephen Farrell, Dorothy Stanley

29.4. Action Items

30. Area Name – Intelligent Transportation Systems (ITS)

30.1. Description

Vehicle-to-Vehicle Communications (V2V) and Vehicle-to-Infrastructure (V2I) communications may involve IEEE 802.11-OCB (Outside the Context of a Basic Service Set) in the Dedicated short-range communications (DSRC) spectrum. The IPWAVE WG will specify the use of IPv6 over IEEE 802.11-OCB in a way that is compatible with the existing IEEE 1609 specifications.

30.2. Relevant Documents

Mail list: its@ietf.org

Mail archive: <https://mailarchive.ietf.org/arch/browse/its/>

<https://datatracker.ietf.org/doc/draft-ietf-ipwave-ipv6-over-80211ocb/>

<https://datatracker.ietf.org/doc/draft-jeong-ipwave-vehicular-networking-survey/>

30.3. Owners: Suresh Krishnan, Dorothy Stanley

30.4. Action Items

31. Area Name

31.1. Description:

31.2. Relevant Documents

31.3. Owners

31.4. Action Items

32. Area Name

32.1. Description

32.2. Relevant Documents

32.3. Owners

32.4. Action Items