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
0.23 revised for the period between 31-Jan-2017 and 10-Apr-2017
0.24 revised for the period between 11-Apr-2017 and 15-Jul-2017

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3. IETF NVO3 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 NVO3 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 NVO3 were submitted. A formal response will be provided at the July Plenary meeting. (DONE)

Jun. 2015: Pat Thaler reported that the project work is ongoing, and that 802.1 will likely send a liaison back to NVO3 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.

Sep. 2016: IEEE 802.1Qcn PAR approved in June

Jan. 2016: editors identified (Li Yijhou, Paul Bottorf)

Jun. 2016: IEEE 802.1Qcn draft and meetings in progress

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

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

Dec. 2016: Publication of RFC 8014

Jan. 2017: NVO3 WG calls for review of
  http://www.ieee802.org/1/files/private/cn-drafts/d0/802-1qcn-d0-4.pdf
  (See https://www.ietf.org/mail-archive/web/nvo3/current/msg05927.html)

Mar. 2017: Alia and Pat found reviewers for IEEE 802.1Qcn D0.4

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

- Send IEEE 802.1Qcn to IETF for review when it is stable

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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 feasibil8ity 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.

Dec. 2016: P802c is approved.

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

Ju1. 2017: It seems like ot would be straightforward to assign MAC addresses with DHCPv4. So far, an author for that has not been found.

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

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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 (links 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

- Send IEEE 802.1CF to IETF for review when it is stable

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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

- 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.

- Jun. 2017: draft-ietf-6tisch-minimal was published as RFC 8180.

- Jul. 2017: ETSI is organizing an 6TiSCH PlugTest prior to the IETF 99.

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/
- http://datatracker.ietf.org/doc/draft-ietf-6tisch-tsch/ -- RFC 7554
- https://datatracker.ietf.org/doc/draft-ietf-6tisch-minimal/ -- RFC 8180
- 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/
- https://www.ietf.org/proceedings/94/slides/slides-94-6lo-14.pdf
- https://mentor.ieee.org/802.15/dcn/15/15-15-0760-07-0llc-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 points of coordination are identified

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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.

- May. 2017: draft-ietf-opsawg-capwap-alt-tunnel was updated based on the Last Call review comments. Should be sent to the IESG soon.

- Jun. 2017: Security Directorate will complete a security review of draft-ietf-opsawg-capwap-alt-tunnel by the end of June 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-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/
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  confirm with Benoit that draft-ietf-opsawg-capwap-extension is dead
- Close when last item done

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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 IEERE 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

- Mar 2017: Draft 07 of IEEE 802E available

24.2. Relevant Documents
http://www.ieee802.org/1/pages/802e.html
http://www.ieee802.org/1/files/private/802-e-drafts/d0/802E-d0-07.pdf

24.3. Owners: Eric Rescorla, Juan Carlos Zuniga

24.4. Action Items
- send information about IEEE 802E when the document is stable

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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.

- Jul. 2017 - a bunch of documents have been approved or published in IEEE 802 over the past few months, including many extensions to the IEEE 802.1Q bridging specification.

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

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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.

- June 2015: PAR and CSD proposals for two projects were submitted:
  802.1Qcl Amendment, YANG Data Model (for IEEE 802.1Q); and
  802.1Xck Amendment, YANG Data Model (for IEEE 802.1X)

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

- July 2015: 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

- 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

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

- 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

- January 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.

- March 2017: At the Hackathon a tool was produced for the YANG model catalog.
  The tool shows the dependencies among modules and keeps the metadata.
  Benoit expressed concern that too many YANG models are proprietary.
  Yan Zhuang volunteered to help with for 802.3 YANG modules. Still need
  volunteer for 802.1.

- May 2017: Thanks to Marc Holness, all IEEE 802.1 YANG modules validate correctly.
  The IEEE 802 YANG modules are now in the YANG catalog <https://www.yangcatalog.org/>.

- Jun. 2017: Some YANG data models associated with IEEE 802 PAR have errors.
  See http://www.claise.be/IEEEStandardYANGPageCompilation.html

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
- IEEE YANG modules are in the yangcatalog.org, but they need more metadata
- coordinate on VLANs YANG models
- There is a desire for the IETF RAC to produce a YANG module for EtherTypes

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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/search/?email_list=its
https://datatracker.ietf.org/doc/draft-ietf-ipwave-ipv6-over-80211ocb

30.3. Owners: Suresh Krishnan, Dorothy Stanley, Russ Housley

30.4. Action Items
- Encourage review for draft-ietf-ipwave-ipv6-over-80211ocb at WG Last Call

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NEXT POTENTIAL AREAS FOR IETF/IEEE802 COORDINATION

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31. Area Name -
31.1. Description:
31.2. Relevant Documents
31.3. Owners
31.4. Action Items

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32. Area Name
32.1. Description
32.2. Relevant Documents
32.3. Owners
32.4. Action Items

CLOSED POTENTIAL AREAS FOR IETF/IEEE802 COORDINATION

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

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2. IETF BFD and IEEE 802.1AX -- CLOSED

Documents:
- https://www.rfc-editor.org/rfc/rfc7130.txt

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4. IETF awareness of IEEE 802.1Q-2011 -- CLOSED

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

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7. IETF Ethernet MIB, ADSL MIB and IEEE 802.3 -- CLOSED

Documents:
- https://www.rfc-editor.org/rfc/rfc7124.txt
- https://www.rfc-editor.org/rfc/rfc7448.txt

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8. IETF 6LOWPAN and IEEE 802.15 -- CLOSED

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9. IETF PAWS WG and 802.11, 802.19, 802.22 -- CLOSED

Documents:
- https://www.rfc-editor.org/rfc/rfc7545.txt

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10. IETF IPPM and LMAP, and IEEE 802.16 Metrology Study Group -- CLOSED

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12. IETF HOKEY and IEEE 802.21 -- CLOSED

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13. IETF MIF and IEEE 802.21 -- CLOSED

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14. IETF IPFIX Information Elements for Data Link monitoring -- CLOSED

Documents:
- https://www.rfc-editor.org/rfc/rfc7133.txt

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15. IETF RADIUS attributes for IEEE 802 networks -- CLOSED

Documents:
- https://www.rfc-editor.org/rfc/rfc7268.txt

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

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17. IEEE 802.1AS/1588 and NTP -- CLOSED

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

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19. Common OAM proposal / Layer Independent OAM -- CLOSED

Documents:
- https://www.rfc-editor.org/rfc/rfc6905.txt
- https://www.rfc-editor.org/rfc/rfc7174.txt
- https://www.rfc-editor.org/rfc/rfc7455.txt
- https://www.rfc-editor.org/rfc/rfc7784.txt

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

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23. Area Name - naming in layer 2 networks -- CLOSED

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

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28. Area Name - Multicast on IEEE 802 wireless networks -- CLOSED

Tutorial materials used at IETF 97 are available at:
- https://www.youtube.com/watch?v=H5nskJAV00I&list=PLC86T-6ZTP5gtLuoSjpTGO_mS5Ly2pfIS&index=128
- 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

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29. Area Name - Opportunistic Wireless Encryption (OWE) -- CLOSED

Documents:
- https://www.rfc-editor.org/rfc/rfc8110.txt
- https://datatracker.ietf.org/liaison/1486/
