Title: Liaison response to ITU-T Q9/15 from IEEE 802.1
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Location: Orlando, FL
From: IEEE P802.1
Contacts: Stephen Haddock, Chair, Interworking Task Group (shaddock@stanfordalumni.org)
Tony Jeffree, Chair, IEEE 802.1 (tony@jeffree.co.uk)

To: Ghani Abbas, Chair Q9/15 (Ghani.Abbas@ericsson.com)

Mr. Abbas,

IEEE 802.1 has received your liaisons LS-140, LS-142, LS-144, LS-146 and LS-145.

IEEE 802.1 has appreciated that in the past, 802.1and ITU-T SG15 have worked well together. As we would like to see this continue, we have issues with your new work in progress, and are very concerned about your recently approved work. We have major concerns about SG15 taking material from 802.1 standards and presentations (as opposed to referencing) and using it to develop standards in SG15, particularly in cases where the behavior is not identical to that specified in 802.1 standards.

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We would like to draw your attention to the following concerns:

LS-145 – G.8021

- We have major concerns about SG15 taking material from 802.1 standards and presentations and using it to develop standards in SG15, particularly in cases where the behavior is not identical to that specified in 802.1 standards. As an example, we specifically refer to the addition of "split horizon" to G.8021. This concept was proposed to 802.1 in 2002 but was not described in 802.1Q.

LS-140 – transport tag and MAC encapsulation

- Some of the concepts in this liaison have been previously presented to IEEE 802.1, and have been considered and rejected through the balloting process of 802.1Qay. We are concerned that the same ideas are now being proposed as standards in SG15.
- Ethertypes allocated to 802.1 are to be used as defined in 802.1 standards. IEEE 802.1 retains exclusive control over updates and modifications to the usage of these Ethertypes. If SG15 redescribes usage of 802.1 Ethertypes, it may result in a lack of interoperability with current or future 802.1 standards, and therefore it must be understood that the 802.1 standard takes precedence. 802.1 would like to reiterate our liaison to SG15 in 2006:

  > While the formal control of the specification of the 802.1 VLAN tagging/detagging entities rests with 802.1 by virtue of its ownership of the associated Ethertype allocation, 802.1 requests that other SDOs not use other Ethertype allocations to develop protocol entities with wire protocol formats that intentionally replicate those of the 802.1Q specification. Such replication would likely cause users of standards to change the Ethertypes actually used in deployment, thus risking future practical interoperability problems including commercial constraints on successful standards development.

- Ethertypes identify the protocol being carried. They do not define a set of instructions for processing the packet. 802.1 already has an example where specific VLAN identifiers are assigned to non-spanning-tree processing (PBB-TE), but the same Ethertype is used as for VLAN identifiers for frames which are subject to spanning-tree processing.

LS-146 – CFI bit

- 802.1Q already supports rooted multipoint by the use of different sets of VIDs for the different delivery areas. For example, two distinct VIDs can be used (either S-VID or C-VID) to distinguish whether the frame was sourced at a root or a leaf. The proposed reassignment of the CFI/DEI bit complicates the translation between the proposed Q9 scheme and the standardized 802.1 scheme, and in the case of S-tags makes the translation impossible without the loss of information. Making a different trade-off between priority and VLAN identification is a minor benefit when compared with the major interoperability problems it creates. 802.1 requests that Q9 consider using the current 802.1 method of supporting rooted multipoint with two distinct VIDs to identify frames sourced at a root or a leaf. 802.1 has received presentations in this area which may lead to new material in 802.1Q. Please refer to the attached presentation for further information.
- The DEI bit in the S-VLAN tag is an essential part of the S-VLAN tag. It is not available for use in ITU-T specifications.
- The CFI bit in the C-VLAN tag is reserved for use by 802.1 in future standards and is not available for use in ITU-T specifications.
- If SG15 is concerned about the scarcity of VIDs, one solution is to use I-SIDs (802.1ah). Please note that priority values are scarce too, and taking the DEI bit is analogous to taking a priority bit.

LS-142 - Etherwire

- We would like to point out that mappings for several of the client data types mentioned in the liaison already exist. In such cases 802.1 strongly recommends that duplicate mappings are not defined in ITU-T SG15. The IEEE RAC, when assigning Ethertypes, checks to prevent duplication of existing assignments. Such duplication could create interoperability problems for existing users. Creating additional mappings in order to have a scheme which treats all clients in the same way might seem attractive but creates problems of translation and complexity. Your attention is drawn to the existing mapping for PPP over Ethernet (RFC2516), cells in frames (CFI Alliance, 1997). We believe that an Ethertype has also been allocated for Frame Relay.

LS-144 – Ethertype 89-10

- 802.1 questions why this approach is necessary when there is already a method defined based on 802.1ah.

IEEE 802.1 would appreciate a dialog on these topics during our May interim meeting in Geneva.