802.1AC
MAC Service Definition
Document structure choices

John Messenger, November 2011
v03
Aims and shortfalls

- Guide dot groups and implementers to implement to the ISS
  - Define the primitives used
  - Define the mapping of the primitives to the MACs
    - Current Annex B has errors and covers many less MACs than 802.1Q 6.7

- Describe the interfaces to the MAC layer in one place
  - In particular, the interfaces common to a bridge and an end station
    - Implies restricting 802.1AC to the parameters required for the MAC Service
  - The EISS as defined is specific to a bridge, in that
    - it includes PVID, and
    - has no parameter to indicate whether the received frame was tagged.

- Describe the basic architectural concepts and terms
  - The text in Annex C of 802.1AC duplicates 802.1Q 6.1 and is not perfectly aligned with it
Copy some subclauses from 802.1Q, intending to remove them from Q in a future revision:

- **6.1 Basic architectural concepts and terms**
  - This would be unified with our current Annex C and placed early in the draft

- ?? Probably NOT 6.2 Provision of the MAC service
  - It talks about how the bridge does these things

- NOT 6.3 Support of the MAC Service
  - It talks separately about how bridges and end stations can handle VLANs; and objectives of Bridge operation

- ?? Probably not 6.4 Preservation of the MAC Service
  - It talks about how Bridges preserve the MAC Service.

- NOT 6.5 Quality of Service Maintenance
  - Instead, 9.2 of 802.1AC/D1.3 refers to QoS parameters defined in 6.5 of Q

- **6.6 ISS would be removed from Q in future, replaced by 10 of AC**
  - Q would need to enhance the 802.1AC ISS with its bridge-specific parameters

- **6.7 Support of the Internal Sublayer Service by specific MAC procedures**
- **?? Probably not 6.8 EISS**
- **?? Probably not 6.9 Support of the EISS**
  - Because it’s likely EISS will be removed from AC
- **NOT 6.10 Support of the ISS/EISS by Provider Instance Ports**
- **NOT 6.11 Support of the EISS by Customer Backbone Ports**
- **NOT 6.12 Protocol VLAN classification**
- **NOT 6.13 Support of the ISS for attachment to a Provider Bridged Network**
- **NOT 6.14 Support of the ISS within a system**
- **Probably 6.15 Support of the ISS by additional technologies**
  - Though this talks about EISS parameters (VID)
- **NOT 6.16 Filtering services in Bridged Local Area Networks**
- **NOT 6.17 EISS Multiplex Entity**
- **NOT 6.18 Backbone Service Instance Multiplex Entity**
- **NOT 6.19 TESI Multiplex Entity**
- **NOT 6.20 Support of the ISS with signaled priority**
Structural choices – unleaded

- Replace most of the content of Clause 10 of 802.1AC/D1.3 with a reference to 6.6 of 802.1Q
  - This would need to be a strong conformance reference
  - The text for the ISS in 802.1AC is more recent than that in 802.1Q

- Retain Clause 11 (MAC Service)

- Presumably remove Clause 12 (EISS)

- Remove Annex B. Include a reference in Clause 10 to 6.7 of 802.1Q.

- Remove Annex C. Perhaps add a reference to 6.1 of 802.1Q.
## Pros and Cons

<table>
<thead>
<tr>
<th>Feature</th>
<th>Premium</th>
<th>Unleaded</th>
<th>Draft 1.3</th>
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</thead>
<tbody>
<tr>
<td>• Guidance to dot groups</td>
<td>Information is all here</td>
<td>Have to refer to a combination of documents</td>
<td>Information is all here</td>
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<tr>
<td>• Describe the interfaces to the MAC layer in one place</td>
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<tr>
<td>• Describe the basic architectural concepts and terms</td>
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<tr>
<td>Annex B (Mapping)</td>
<td>Incorporates best available spec (6.7 of Q)</td>
<td>Refers to 6.7 of Q</td>
<td>Information is wrong</td>
</tr>
<tr>
<td>Separation of features -</td>
<td>Incorporates interface details common to end station and bridge</td>
<td>Some end station interface features remain in 802.1Q</td>
<td>Includes too much (bridge-specific EISS)</td>
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</tbody>
</table>

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Thank You

JMessenger@advaoptical.com