802.1AC
MAC Service Definition
Document structure choices

John Messenger, November 2011

v02

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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

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Structural choices – premium

▸ 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**

Premium/contd…

- **??** 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

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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 ISS in 802.1Q is based on the MAC Service from 15802-1 which is reflective in nature.

    ▸ The text for the ISS in 802.1AC is more detailed 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

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

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Thank You

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