802.1aj: PBB Transparent Interface
Version 2

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PBB Transparent Service Interface

• Desired characteristics:
  – Relay frames between the service interface and a single Backbone Service Instance (single VIP) …
  – … as transparently as possible:
    • Do not learn/filter/modify customer MAC addresses
    • Do not filter/modify Customer or Service VLAN tags (including priority tags)
  – Provide for instantiation of CFM MPs at service interface, Backbone Service Instance, and link levels.
  – Support in-band management at least through the Backbone Service Instance
TPMR base for a Transparent Interface

• A TPMR-component is the most transparent MAC relay defined by 802.1:
  – No VLAN-aware functionality:
    • Transparent to all C-VLAN and S-VLAN tags including untagged and priority-tagged frames.
  – Only one reserved MAC address
    • versus 11 for an S-component and 16 for a C-component
    • Minimum possible for a discoverable device.
  – Only one other address entry in Filtering Database
    • For a management address
  – Designed to be as transparent as possible and still be a manageable device.
Define a “T-component”

- A T-component is
  - a TPMR component with one port that is a Provider Instance Port with a single Virtual Instance Port.

- Analogous to I-component
  - but based on a TPMR component relay rather than an S-VLAN component relay

- Used in Backbone Edge Bridges:
  - Standalone T-component forms a “T-type” BEB that supports a single transparent service instance.
  - One or more T-components may be internally connected to a B-component in a single BEB.
T-component interface stack

I-component

S-VLAN relay

EISS  EISS  EISS
Clause 6.9  Clause 6.9  Clause 6.9
ISS  ISS  ISS
Clause 6.10
ISS  Clause 6.7

T-component

TPMR relay

ISS  ISS
Clause 6.10
ISS  Clause 6.7
Clause 6.7
802.1Q clauses affected

• Clause 5:
  – New subclause for T-component conformance/options.
  – Update Backbone Edge Bridge subclause to include T-component.

• Subclause 6.10
  – Update introductory paragraphs to describe support of the ISS at a VLAN-unaware MAC relay. Potentially add new diagram showing this configuration.

• Clause 12,17
  – Update managed objects and MIB to include T-component type.

• Clause 25
  – Add new subclause describing Transparent Service Interface (analogous to subclause 25.3 Port-based Service Interface).

• Clause 26
  – Include Transparent Service Interface in lists of interface options.