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
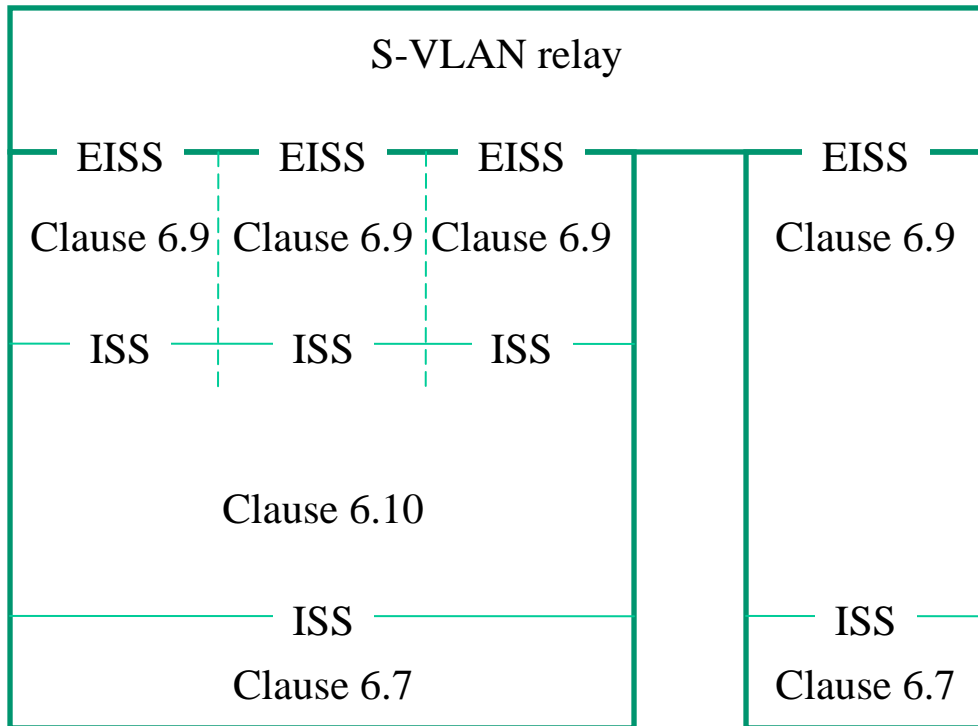
TPMR base for a Transparent Interface

- 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.
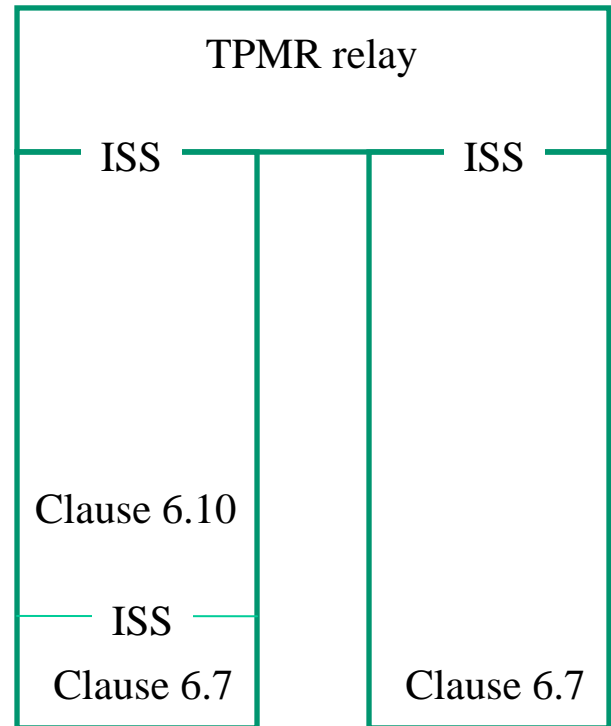
Define a "T-component"

- ## 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

T-component

S-VLAN relay

EISS — EISS — EISS — EISS

Clause 6.9   Clause 6.9   Clause 6.9   Clause 6.9

ISS — ISS — ISS

Clause 6.10

ISS   ISS

Clause 6.7   Clause 6.7

TPMR relay

ISS — ISS

Clause 6.10

ISS   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.