

# 802.1CBdb

## How to spot untagged frames in EISS indications

IEEE 802.1 Interim Salt Lake City

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- Background
- Proposal

# BACKGROUND

## Background

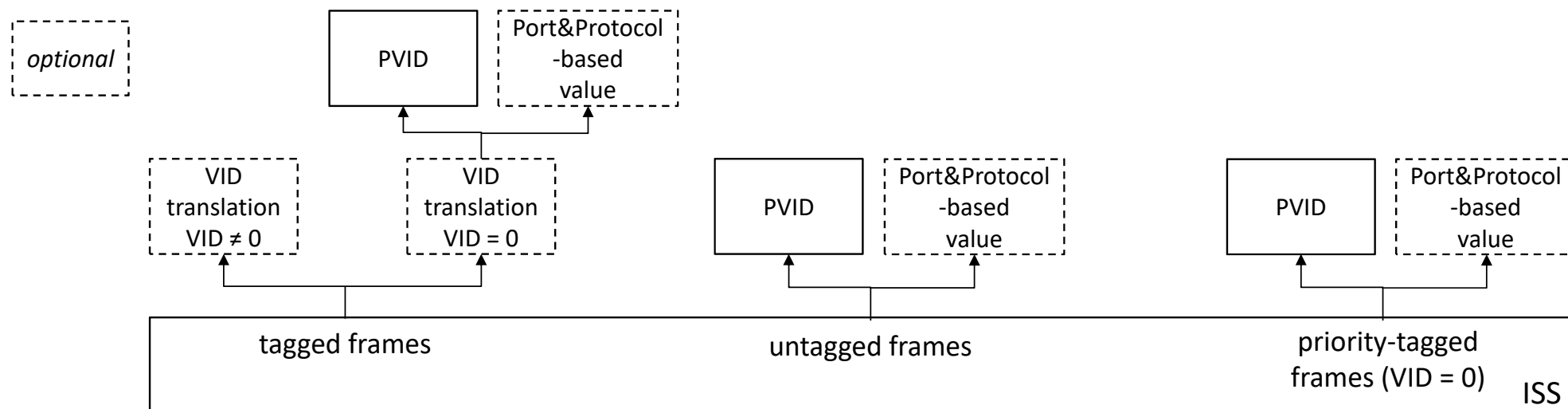
- In case of a VLAN aware bridge, the EISS provides the *vlan\_identifier* parameter in the *EM\_UNITDATA.indication* primitive whether the frame was initially tagged or not:
  - *EM\_UNITDATA.indication*

```
(  
  destination_address,  
  source_address,  
  mac_service_data_unit*,  
  priority,  
  drop_eligible,  
  vlan_identifier,  
  frame_check_sequence,  
  service_access_point_identifier,  
  connection_identifier,  
  flow_hash,  
  time_to_live  
)
```

\* If the frame is VLAN-tagged, the *mac\_service\_data\_unit* is the *mac\_service\_data\_unit* provided by the ISS, which VLAN-tag has been removed.

## Background

- What 802.1Q says about the value of the *vlan\_identifier* parameter passed by the *EM\_UNITDATA.indication* primitive (Clause 6.9.1):



- PVID tagging is mandatory,  $PVID \neq 0$ , default value = 1 or 2
- VID translation can translate the incoming VID into VID = 0

- 802.1CB introduces a managed object to determine if a frame includes a VLAN-tag:
  - *tsnCpeXxxYyyZzzTagged*
    - “An enumerated value indicating whether a packet in an EISS indication primitive to the Xxx identification function is permitted to have a VLAN tag. It can take the following values:
      - 1) **tagged**: A frame must have a VLAN tag to be recognized as belonging to the Stream.
      - 2) **priority**: A frame must be untagged, or have a VLAN tag with a VLAN ID = 0 to be recognized as belonging to the Stream.
      - 3) **all**: A frame is recognized as belonging to the Stream whether tagged or not.

# PROPOSAL

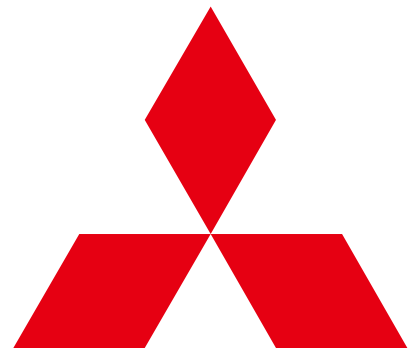
## Proposal

- So far Draft 0.0 re-uses the managed object defined in 802.1CB-2017 to determine if the VLAN-ID can be part of the stream identification.
- Do we need to keep it for mask-and-match ?
  - Maybe not...
  - Instead, use a specific *vlan\_identifier* match value to identify initially untagged or non-significantly tagged frames...



## Proposal

- If Port and protocol based tagging is not used,
  - If *vlan\_identififer*  $\neq$  PVID, the frame was initially tagged, and:
    - *vlan\_identififer* can be used as an input for stream identification
  - If *vlan\_identififer* = PVID, the frame was initially untagged or priority-tagged, or priority-tagged after VID translation:
    - *vlan\_identififer* has no significant value, hence for stream identification
- Do we have to consider that the use of Port and protocol-based tagging is relevant when stream identification is implemented ?
  - Tagging can be performed by output instances of *Active Destination MAC and VLAN Stream identification* functions, based on the *stream\_handle* generated by any passive stream identification function.
  - ... then, no...



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Thank you for your attention

