



## 802.1Qbg VDP change proposal



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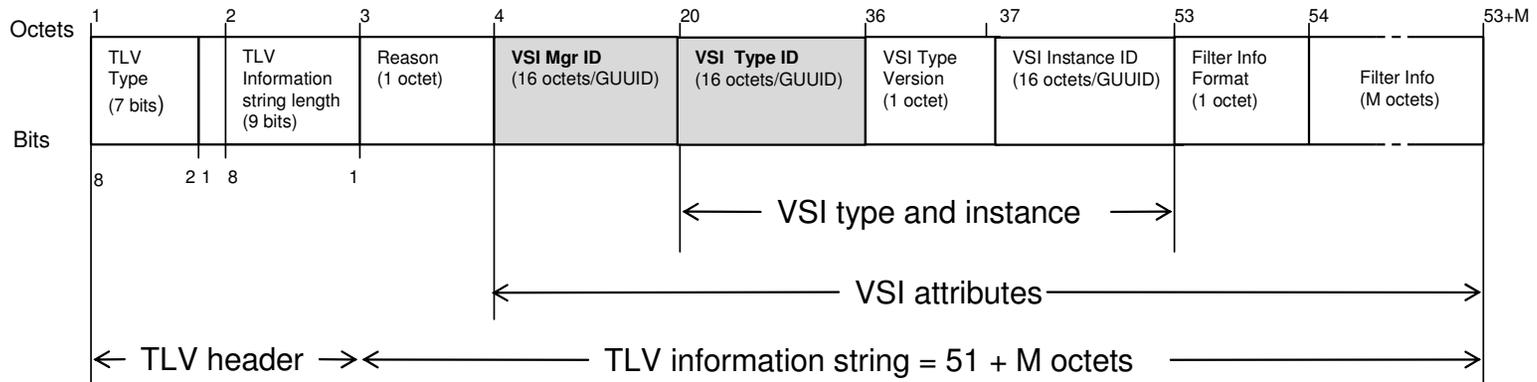
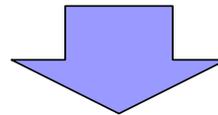
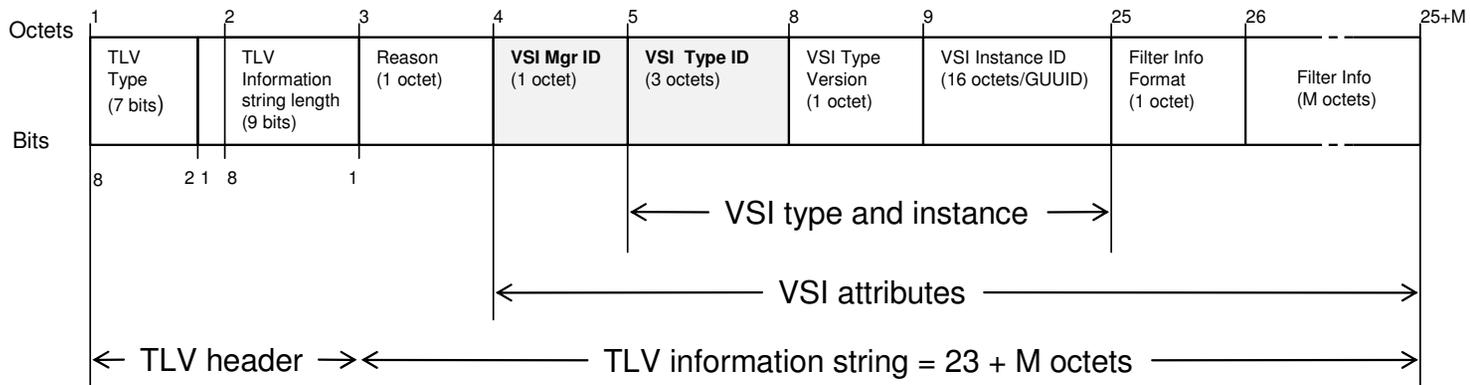
**bg-wang-VDPIDSize-0211**

# Overview



- Proposed changes for some 802.1Qbg VDP TLV fields
  - VSI manager ID field increased from current size of 1 octet to GUUID-sized 16 octets
  - VSI type field increased from current size of 3 octets to GUUID-sized 16 octets
  - Both changes will enable support for multiple independent management planes with a VSI manager

# Proposed VSI changes





# VSI manager ID field size

- The VSI manager ID field identifies which VTDB to use for a particular request. The VTDB scopes the rest of the VSI request.
- The current size of 1 octet will allow up to 256 separate VTDBs to be enumerated in a data center. This seems inadequate for large data centers, where many scopes may be desired for access control.
- Making the VSI manager ID a GUID will solve any current and future sizing issues, allowing for many separate VTDBs.
  - A GUID will also allow different management planes to specify their own manager IDs without coordination between the management planes, or fear of collisions.
  - A GUID will also avoid collisions when merging two data centers and associated management planes together.



# VSI type field size

- The VSI type field along with the VSI type version field and the VSI instance field, identifies which VSI type to use for a particular request.
- The current size of 3 octets will allow up to  $2^{24}$  separate VSI types to be enumerated in a data center. So space is not really a problem here.
- Enumeration of VSI type (and therefore port profile IDs) is currently assumed to be managed by the data center administrator. However, this assumption may be invalid in the face of different management planes.
  - Making the VSI type a GUID will eliminate this assumption, as each management plane can create its own unique identifiers for VSI types based on local factors. VSI types can then be unique across the data center without any coordination needed between management planes.