

<< NOTE FROM BOB SULTAN: This document supplies text for portions of 802.1Qbg subclause 42.2.2 discussed during the November 2010 Plenary meeting. Features supported by this text are:

- 1) A VID value can be supplied on the VDP Response when the network allocates VID values;
- 2) A GroupID provides global identification for a VLAN. The VLAN may be associated with a different VID value in each local region of the network (for example, in each rack). The GroupID need not be specified when the VLAN is known by a single VID value throughout the network. The GroupID can be specified in the VDP Associate Request or Response;
- 3) The term 'filter' is introduced to indicate a set of VID values or <MAC, VID> values that identifies traffic associated with a specific VSI. The filter is used, for example, to apply a VSI-type to the traffic associated with a particular VSI;
- 4) The TLV fields that were previously identified as 'MAC/VLAN format' and 'MAC/VLANs' in D1.2 are now known as 'Filter Info format' and 'Filter Info' respectively.
- 5) Four 'Filter Info formats' are currently defined (VID, MAC/VID, GroupID/VID, GroupID/MAC/VID), but other 'Filter Info formats' may be specified in the future;
- 6) The 'Partial' MAC/VID format, which appeared in the previous version of this subclause, is no longer needed.

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### 42.2.2 VDP TLV definition

VDP supports VSI discovery and configuration across a channel interconnecting an EVB Station and an EVB Bridge. VDP TLVs are exchanged between the EVB Station and the EVB Bridge in support of this protocol. Figure 42-1 illustrates the format of the VDP TLV.

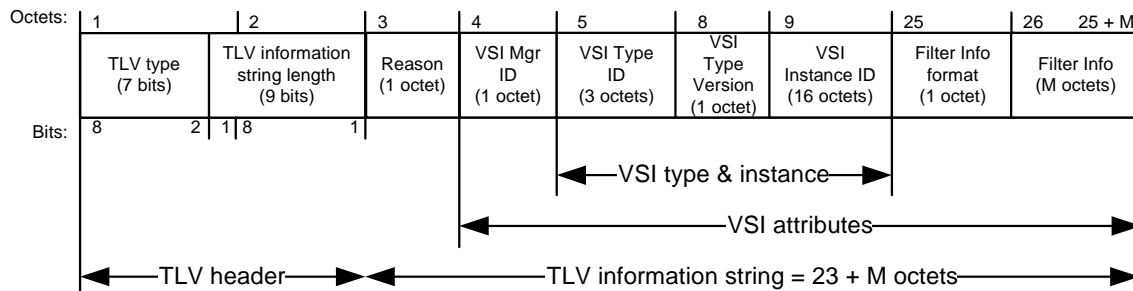


Figure 42-1—VDP TLV

The VDP TLV field definitions are contained in subclauses 42.2.2.1 through 42.2.2.8. The semantics of the VDP TLV types are defined in subclause 42.2.3.

<< Editor's note: The following text replaces the D1.2 text for subclauses 42.2.2.7 through 42.2.2.10.>>

#### 42.2.2.7 Filter Info format

The Filter Info format field specifies the format of the Filter Info field (42.2.2.8).

**Table 42-1—Filter Info format values**

Filter Info Format	Value
VID	0x00
MAC/VID	0x01
GroupID/VID	0x02
GroupID/MAC/VID	0x03
Reserved for future standardization	0x04 through 0xFF

The Filter Info formats defined by this standard are shown in Table 42-1.

#### 42.2.2.8 Filter Info field

The Filter Info field contains information from which a filter can be constructed. The filter is a set of VID values or a set of MAC/VID values. The MAC address in a MAC/VID value is an individual MAC address. The filter is applied to an EVB Bridge Port in order to identify traffic associated with a particular VSI. This allows a VSI-type, for example, to be applied to the identified VSI.

The Filter Info field can also contain information that is not part of the filter. In particular, the Filter Info field can contain GroupID values. Like the VID, the GroupID identifies a VLAN. When the number of VLANs in the network is less than 4095, each VLAN can be assigned a VID value that is global within the network.

When the number of VLANs in the network exceeds 4094, a VID can be associated with a VLAN in one region of the network and with a different VLAN in another region of the network. In this case, the VLAN is uniquely and globally identified by a GroupID. The VLAN is locally identified by a VID in each region of the network in which the VLAN is present.

When VLANs are identified by GroupID, the EVB Station has knowledge of the GroupID but it does not, in general, know the corresponding VID to be used by traffic associated with the VLAN. The EVB Bridge is aware of, or can obtain knowledge of, the VID associated with the specified GroupID. Thus, the EVB Station can send GroupID values to the EVB Bridge via the Filter Info field of the VDP Request. The EVB Bridge can map GroupID values to local VID values. The VID is included in the filter constructed by the EVB Bridge and is returned with its corresponding GroupID to the EVB Station via the VDP Response.

### 42.2.2.8.1 VID Filter Info format

The VID Filter Info format specifies that the Format Info field contains a set of VID values to be associated with the VSI Instance (42.2.2.6).

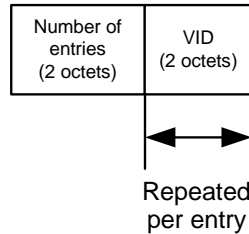


Figure 42-2—VID Filter Info format

The number of VID values in the sequence is specified by the Number of entries field. Figure 42-2 illustrates the VID Filter Info format.

The Filter Info field can specify a VID value of 0x000 which is known as the null VID (see Table 9-2). When the null VID is specified, it is the only VID specified in the Filter Info field (ie., the Number of entries field is assigned the value one). Use of the null VID indicates that the set of VID values associated with the VSI is supplied by the EVB Bridge. The EVB Bridge can obtain VID values or GroupID values from the VSI-type whose identity is specified by the VSI-type information in the VDP Request. If the VSI-type specifies GroupID values, each GroupID is mapped to a corresponding local VID. For this purpose, the EVB Bridge maintains, or has access to, the mapping between GroupID values and local VID values. The set of VID values is returned to the EVB Station via the VDP Response.

<<NOTE FROM BOB SULTAN: I'm not sure that the concept of the 'default VSI-type for a Port', referenced below, is adequately explained in D1.2. I suggest that someone supply some normative text describing this.>>

The Filter Info field can specify a VID value of 0xFFF which is known as the wildcard VID (see Table 9-2). When the wildcard VID is specified, it is the only VID specified in the Filter Info field (ie., the Number of entries field is assigned the value one). Use of the wildcard VID value indicates that the VSI-type specified by the VDP Request is the default VSI-type associated with the Port.

### 42.2.2.8.2 MAC/VID Filter Info format

The MAC/VID Filter Info format indicates that the Format Info field specifies a sequence of MAC/VID value pairs to be associated with the VSI Instance (42.2.2.6).

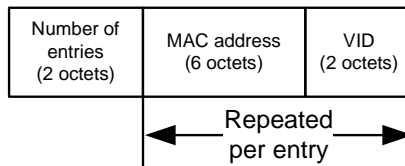
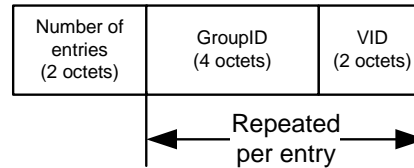


Figure 42-3—MAC/VID filter format

The number of MAC/VID pair values is specified by the field Number of Filter Info entries. Figure 42-3 illustrates the MAC/VID Filter Info format of the Filter Info field.

### 42.2.2.8.3 GroupID/VID Filter Info format

The GroupID/VID Filter Info format indicates that the Format Info field specifies a sequence of GroupID/VID pairs to be associated with the VSI Instance (42.2.2.6). The number of GroupID/VID pairs is specified by the Number of entries field.



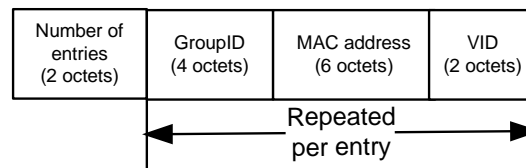
**Figure 42-4—GroupID/VID filter format**

The null VID (0x000) can be associated with the GroupID value when the GroupID/VID filter format is specified in the VDP Request. In this case, the EVB Bridge is expected to supply the corresponding local VID value in the VDP Response. For this purpose, the EVB Bridge maintains, or has access to, the mapping between GroupID and local VID.

Figure 42-4 illustrates the GroupID/VID Filter Info format of the Filter Info field.

### 42.2.2.8.4 GroupID/MAC/VID Filter Info format

The GroupID/MAC/VID Filter Info format indicates that the Filter Info field specifies a sequence of GroupID/MAC/VID triples associated with the VSI Instance (42.2.2.6). The number of GroupID/MAC/VID triples is specified by Number of entries.



**Figure 42-5—GroupID/MAC/VID filter format**

Figure 42-5 illustrates the GroupID/MAC/VID Filter Info format of the Filter Info field.

The null VID (0x000) can be associated with a GroupID value when the GroupID/MAC/VID filter format is specified in the VDP Request. In this case, the EVB Bridge is expected to supply the corresponding local VID value in the VDP Response. For this purpose, the EVB Bridge maintains, or has access to, the mapping between GroupID and local VID.

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