Comment resolution for EPON multicast LLID

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Addition of multicast LLID

Comments #234, #235 & #236 add multicast LLID rules to EPON. This was proposed and discussed previously, but the comments do not make sufficient changes to match the proposal.
Specific issues

Grandfathering of existing equipment - The new feature must be optional to allow currently compliant equipment to stay compliant.

The multicast LLID use must be specified as downstream only and precluded from the registration process.

The filtering descriptions must be unambiguous.

The use of LLID vs logical_link_id must be consistent.

The PICS must be updated to reflect the new feature.
Following the paragraph that begins with "If the device is an ONU ...," add the following sentence as a third bullet item:

"f) If the device supports the multicast LLID feature, the received mode bit is 0 and the received logical_link_id value matches an assigned multicast_link_id, then the comparison is considered a match."
Change variable definitions for LLID

For subclause 65.1.3.1 - change the definition for logical_link_id as follows:

"This variable shall be set to the broadcast value of 0x7FFF for the unregistered ONU MAC. Enabled OLT MACs may use any value for this variable. If the optional multicast LLID feature is supported, the OLT may use a multicast_link_id along with the mode bit set to 0.

Registered ONU MACs may use any value other than 0x7FFF or a multicast_link_id for this variable."
Change variable definitions for LLID

For subclause 76.2.6.1.1 - change the definition for logical_link_id as follows:

"This variable shall be set to the broadcast value of 0x7FFF for the unregistered ONU MAC.

Enabled OLT MACs may use any value for this variable. If the optional multicast LLID feature is supported, the OLT may use a multicast_link_id along with the mode bit set to 0.

Registered ONU MACs may use any value other than the reserved values listed in Figure 76–4 or a multicast_link_id for this variable."
Add variable definitions for mLLID

For subclause 65.1.3.1 – add the definition for multicast_link_id as follows:

“multicast_link_id

Value: 15 bits

Enabled OLT MACs that support the optional multicast LLID feature may use any value for this variable. This variable is used, along with a mode bit reset to 0, to derive the multicast LLID.

"
Add PICS for mLLID

Table 65.4.4.2 add:

<table>
<thead>
<tr>
<th>FS4</th>
<th>multicast_LLID support</th>
<th>65.1.3.1</th>
<th>Supports multicast LLID, multicast_link_id variable</th>
<th>O</th>
<th>Yes [ ]</th>
<th>No [ ]</th>
</tr>
</thead>
</table>

Table 65.4.4.3 add:

<table>
<thead>
<tr>
<th>PM5a</th>
<th>multicast_LLID matching</th>
<th>65.1.3.2</th>
<th>If multicast LLID matches accept the packet</th>
<th>*FS4 :M</th>
<th>Yes [ ]</th>
<th>No [ ]</th>
</tr>
</thead>
</table>
Add PICS for mLLID

Table 76.5.4.2 add:

<table>
<thead>
<tr>
<th>FS4</th>
<th>multicast_LLID support</th>
<th>76.2.6.1.1</th>
<th>Supports multicast LLID, multicast_link_id variable</th>
<th>O</th>
<th>Yes [ ]</th>
<th>No [ ]</th>
</tr>
</thead>
</table>

Table 76.5.4.3 add:

| PM5a | multicast_LLID matching | 76.2.6.1.3.2 | If multicast LLID matches accept the packet | *FS4 :M | Yes [ ] | No [ ] |
Questions…

Feel free to email questions hbarrass@cisco.com