IfIndex EVB Revisions

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Problem/Solution

- If SNMP MIB is used in SNMP systems to represent coupling up and down protocol stacks

- In multi-component Bridges the IfStack along with the extension ILAN tables from the Bridge Base MIB should be used to represent the interconnection of components by the 'Internal LANs'

- The IEEE Bridge Base MIB Port table provides the IfIndex reference to get to the If MIB, however

- No method is provided to get from IfIndex to the Bridge MIB keying <ComponentID, PortNumber>

- It appears that some implementations use Port Number for the IfIndex. These implementations might be using this special fact to allow cross referencing, however in general the IfIndex is opaque.

- The EVB SNMP MIB should add IfIndex to tables which don't necessarily extend the Bridge Base Port Table

- The IEEE Bridge MIB should add a table to allow mapping IfIndex to <ComponentID, Port Number>

EVB SNMP MIB Tables

- <ComponentID, PortNumber> is a key for:
  - ieee8021BridgeEvbSbpConfigTable – no IfIndex needed
  - ieee8021BridgeEvbVsiDbTable – no IfIndex needed
  - ieee8021BridgeEvbVsiDbMacTable – no IfIndex needed
  - ieee8021BridgeEvbUrpTable – IfIndex desirable
  - ieee8021BridgeEvbEcpTable – no IfIndex needed
- <ISS Port Number> is a key for:
  - ieee8021BridgeEvbIssPortTable – IfIndex needed
  - ieee8021BridgeEvbCapConfigTable – IfIndex needed
  - ieee8021BridgeEvbUapConfigTable – IfIndex needed

ieee8021BridgeIfIndexToPortTable

- Table is keyed on IfIndex
- Each table element contains
  - IfIndex
  - ComponentID
  - Port Number
- When the ComponentID = 0 then the Port Number is an ISS Port Number
- The table is read only and does not support create
- Table rows always created implicitly when Bridge Ports or ISS Ports are created. Commonly these are static from system start time.

Proposal for EVB Draft

- Add the IfIndex to the SNMP MIB tables as listed

- Add a ieee8021BridgeIfIndexToPortTable to the Bridge Base MIB

- Do not make these additions to clause 12 since IfIndex is SNMP specific

- Place a editors note at the beginning of clause 17 requesting comments on these additions