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 \(<\text{ComponentID, PortNumber}>\)
- 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 \(<\text{ComponentID, Port Number}>\)
EVB SNMP MIB Tables

• <ComponentID, PortNumber> is a key for:
  – ieee8021BridgeEvbSbpConfigTable – no IfIndex needed
  – ieee8021BridgeEvbVsiDbTable – no IfIndex needed
  – ieee8021BridgeEvbVsiDbMacTable – no IfIndex needed
  – ieee8021BridgeEvbUrprTable – IfIndex desirable
  – ieee8021BridgeEvbEcpTable – no IfIndex needed

• <ISS Port Number> is a key for:
  – ieee8021BridgeEvbIssPortTable – IfIndex needed
  – ieee8021BridgeEvbCapConfigTable – IfIndex needed
  – ieee8021BridgeEvbUapConfigTable – IfIndex needed
ieee8021BridgelfIfIndexToPortTable

- 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 ieee8021BridgelfIndexToPortTable 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