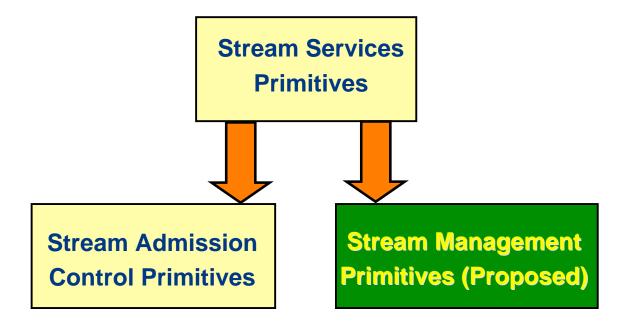


# STREAM MANAGEMENT for IEEE 802.1AVB

Shlomo Ovadia & Zong Liang Wu March 13, 2007

Enabling home networking for digital entertainment TM



### **Stream AC primitives:**

- 1. Create (or Add) stream
- 2. Dynamic Update (or Modify) stream
- 3. Delete (or Tear Down) stream

### **Stream Management primitives:**

- 1. List (ingress node) streams
- 2. Query (QoS capable node)
- Proposed change

# ENTROPIC Stream Management Methods

Enabling home networking for digital entertainment TM

### Two methods for stream management:

- IEEE 802.1 MIBs using SNMP
- L2 stream management primitives (presented at IEEE **802.1 Monterey meeting)**

| Method         | L2 Stream<br>Management  | 802.1 MIBs  |
|----------------|--|---|
| Advantages     | <ul> <li>Low-cost AVB bridge – approximately up to 50% cost saving</li> <li>Simpler stream management across multiple L2 QoS segments</li> </ul> | IEEE 802.1 MIB structure is already defined   |
| Disadvantages  | Add primitives to current SRP  | <ul> <li>Required higher-layer protocol support</li> <li>Increased AVB bridge cost</li> </ul> |
| Recommendation | Adopt L2 stream management as an alternative method to IEEE 802.1 MIBs for some applications   |   |



## **Open Issues**

Enabling home networking for digital entertainment TM

- The current IEEE 802.1at/D0.3 draft is still missing the following details:
  - 1. Overall SRP reference model
  - 2. Theory of operation
  - 3. Revised Reservation PDUs
- Dynamic stream update agreed to be added at last IEEE 802.1 meeting
- Supported TSPEC parameters for different PHY layers (TBD)