
# Configuration of Stream Reservation Classes for SRP++

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IEEE 802.1 Interim, May 2016, Budapest

# Stream Class Configuration in AVB

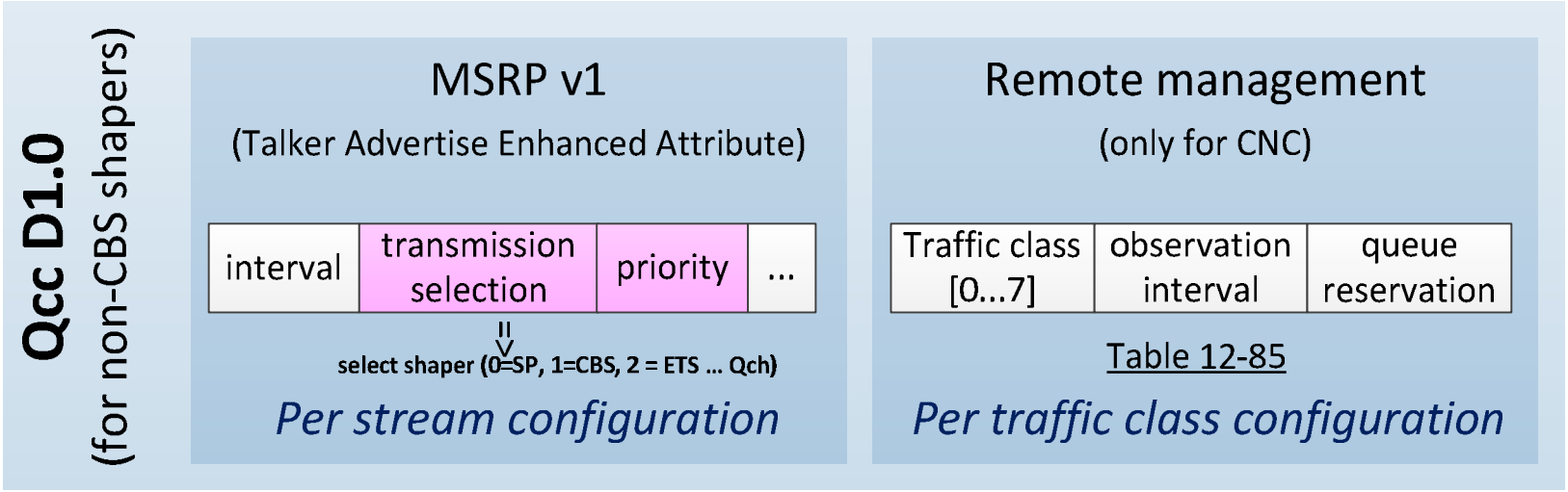
- Two stream classes, Class A and Class B, are defined for CBS
- Mappings of ***SR Class => Priority => Traffic class*** are defined
- Measurement intervals for Class A and B are fixed
- Bandwidth configuration for CBS can be done by either SRP or management (Table 12-4)

**AVB** (for CBS)

| SR Class (ID) | | | Class measurement interval | | Priority | | Traffic Class |
|---|---|---|---|---|---|---|---|
| A | 6 | = | 125 µs | -> | 3 | -> | 7 |
| B | 5 | = | 250 µs | -> | 2 | -> | 6 |
| Table 35-7 fixed | | | Clause 34.4 fixed | | Table 6-5 default | | Table 34-1 default |

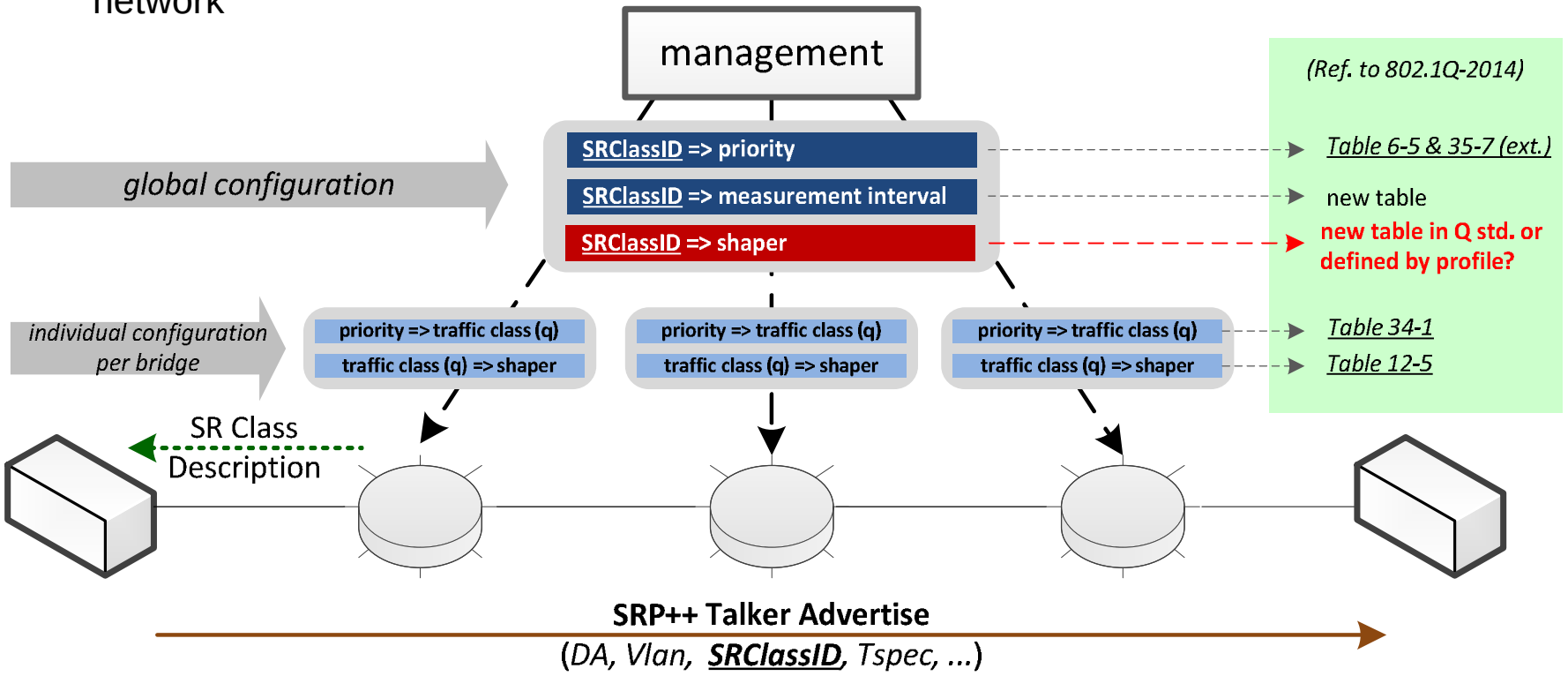
# Stream Class Configuration in Qcc

- The same mechanism for Class A and B as in AVB
- For streams not using CBS
  - Talker advertise of MSRPv1 carries the values of interval and transmission selection (which shaper), which is per stream
  - The mappings of ***priority ⇔ TSN shaper ⇔ observation interval ⇔ traffic class*** is done by CNC on a per-stream base
  - per traffic class configuration for non-CBS shaper is provided in 12.28.6 Traffic Class Queue Reservation, but only for CNC remote management



# Stream Class Configuration for SRP++

- SR classes are configured on each bridge by management
- SR class description as network capability is exchanged over UNI between end-station and network
- End-station requests stream service based on the SR class description provided by the network



# Dependencies between SRP++ Attributes Policing, Forwarding and Queuing

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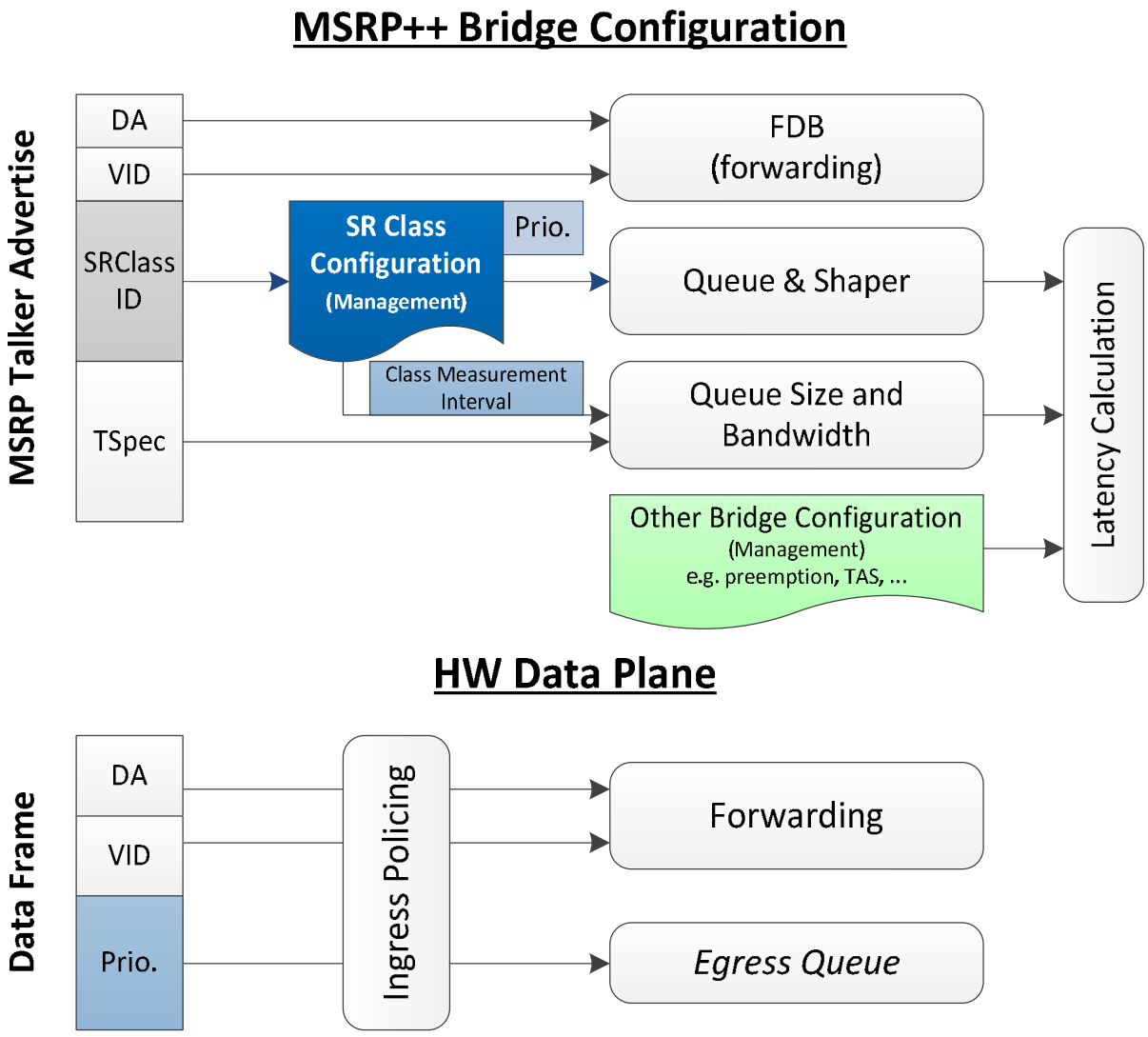

# Proposals for Stream Class Configuration in SRP++

## Managed Objects for Stream Class Configuration

- Administration-defined SR classes, e.g. Class X, Y, Z … (Class A and B are predefined)
- Mappings to *SRClassID*, *measurement interval* and *priority* are configurable

### Stream Class related

| | SR Class Name | SR Class ID | | Class measurement interval | | Priority |
|---|---|---|---|---|---|---|
| AVB | A | 6 | == | 125 µs | == | 3 |
| AVB | B | 5 | == | 250 µs | == | 2 |
| TSN | X | 19 | -> -> | a µs | -> | 5 |
| TSN | Y | 11 | -> -> | b ms | -> | |
| TSN | Z | 42 | -> -> | c µs | -> | 4 |

Extended Table 35-7 | new table | Extended Table 6-5

### Non SR Class related

| Priority | | Traffic Class (Queue index) | | Transmission Selection Algorithm (Shaper) |
|---|---|---|---|---|
| 5 | -> | 7 | -> | 0 (SP) |
| 4 | -> | 6 | -> | 1 (CBS) |

A new Table like Table 34-1 for TSN | Table 12-5

TAS (optional) | Preemption (optional)

## Other Non-SR Class related Properties

- **Coordination** (transmission time for Endstation) as new optional SRP++ attribute
- TAS **en-/disabling** is not a task of SRP++, but configured by management
  - Configuration of offsets for TAS can be done by SRP++ or management.
- **Redundancy** is mapped into ***VID*** *(parameter per Stream - Streams are transmitted in multiple VLANs)*

# Thank you for your attention!

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