ATS & PSFP YANG maintenance items #0392 & #0393 ver 3.1

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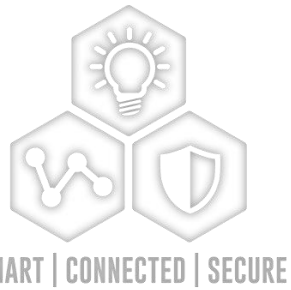


Woojung Huh

Jun/16/2026

Maintenance items

- #0392
  - ATS schedulers and scheduler-groups YANG containers don't align with 802.1Q-2022
  - Multiple Scheduler Instance Tables and Scheduler Group Instance Tables are created in a bridge components
- #0393
  - Need a clarification of using stream-filter when a bridge uses both ATS and PSFP

#0392 Updates

ATS schedulers and scheduler-groups YANG containers don't align with 802.1Q-2022

802.1Q-2020 and P802.1Q-2022-Rev D1.6

- **Ieee802-dot1q-ats-bridge.yang Revision 2023-07-03 doesn't align with following statements**
  - **12.31.5 The Scheduler Instance Table**
    - There is one Scheduler Instance Table per Bridge Component. Each table row in the Scheduler Instance Table comprises a set of parameters that defines a single ATS scheduler instance, as detailed in Table 12-38.
  - **12.31.6 The Scheduler Group Instance Table**
    - There is one Scheduler Group Instance Table per Bridge Component. Each table row in the Scheduler Group Instance Table comprises a set of parameters that defines a single ATS scheduler group instance (8.6.5.6), as detailed in Table 12-39.

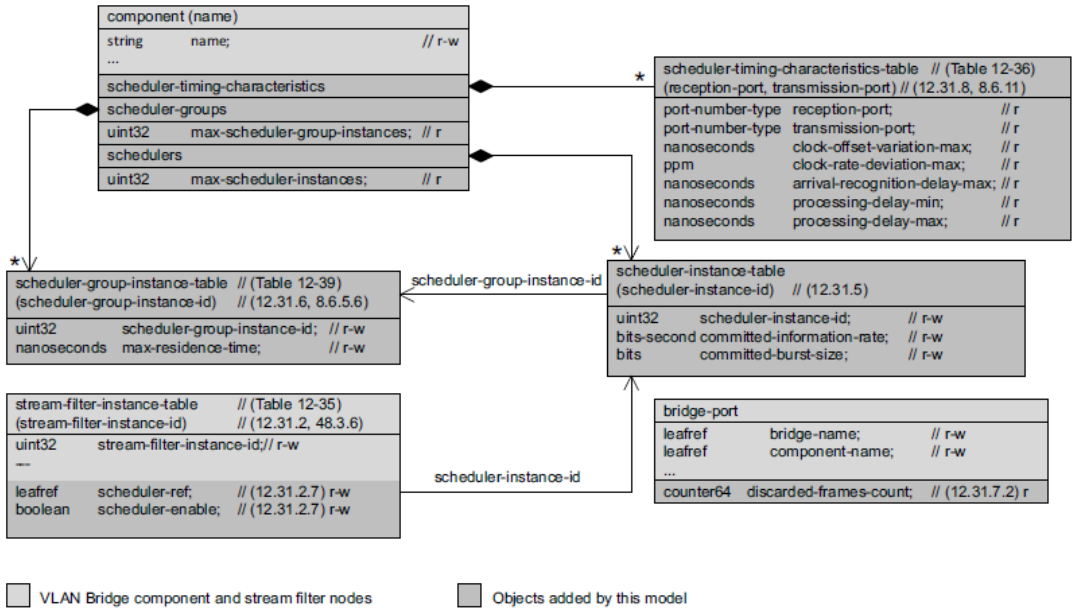


Figure 48-16—Asynchronous Traffic Shaping model

- **48.2.7 Asynchronous Traffic Shaping (ATS) model**
  - The ATS model augments the Bridge component model (48.3.1) and the stream filters and stream gates model (48.3.6) by nodes that represent to following managed objects:
    a) The Scheduler Instance Table (12.31.5)
    b) The Scheduler Group Instance Table (12.31.6)
    c) The Scheduler Port Parameter Table (12.31.7)
    d) The Scheduler Timing Characteristics Table (12.31.8)
    e) A Stream Filter specification type representing an ATS scheduler instance identifier (12.31.2.5)

ieee802-dot1q-ats-bridge.yang Revision 2023-07-03

- **Current ieee802-dot1q-ats-bridge.yang**
  - *ats:ats-parameters* is under augment of “stream-filters/stream-filter-instance-table”
  - It creates multiple ***the Scheduler Instance Table (12.31.5)*** and ***the Scheduler Group Instance Table (12.31.6)*** under ***the Stream Filter Instance Table (12.31.2)*** than one per the Bridge Component.

Current 802.1Q ATS YANG schema

```
module: ieee802-dot1q-bridge
  +--rw bridges
     +--rw bridge* [name]
        +--rw component* [name]
          +--rw ats-bridge:stream-gates
           |  +--rw ats-bridge:stream-gate-instance-table* [stream-gate-instance-id]
           +--rw ats-bridge:stream-filters
           |  +--rw ats-bridge:stream-filter-instance-table* [stream-filter-instance-id]
           |  |  +--rw ats-bridge:stream-filter-instance-id                    uint32
           |  |  +--rw ats-bridge:stream-gate-ref -> ../../../stream-gates/stream-gate-instance-table/stream-gate-instance-id
           |  |  +--rw ats-bridge:schedulers
           |  |  |  +--rw ats-bridge:scheduler-instance-table* [scheduler-instance-id]
           |  |  +--rw ats-bridge:scheduler-groups
           |  |  |  +--rw ats-bridge:scheduler-group-instance-table* [scheduler-group-instance-id]
           |  |  +--rw ats-bridge:scheduler
           |  |     +--rw ats-bridge:scheduler-ref? -> ../../schedulers/scheduler-instance-table/scheduler-instance-id
           |  |     +--rw ats-bridge:scheduler-enable?   boolean
```

Proposed solution

- **No change needed on ieee802-dot1q-ats.yang**
- **Modified ieee802-dot1q-ats-bridge.yang**
  - Move *ats:ats-parameters* out of augment of “stream-filters/stream-filter-instance-table”
  - It creates ***single Scheduler Instance Table (12.31.5)*** and ***single Scheduler Group Instance Table (12.31.6)*** under the Bridge Component.

New 802.1Q ATS YANG schema

```
module: ieee802-dot1q-bridge
  +--rw bridges
     +--rw bridge* [name]
        +--rw component* [name]
           +--rw ats-bridge-v2:stream-gates
           |  +--rw ats-bridge-v2:stream-gate-instance-table* [stream-gate-instance-id]
           +--rw ats-bridge-v2:stream-filters
           |  +--rw ats-bridge-v2:stream-filter-instance-table* [stream-filter-instance-id]
           |  |  +--rw ats-bridge-v2:stream-gate-ref                              -> ../../../stream-gates/stream-gate-
instance-table/stream-gate-instance-id
           |  |  +--rw ats-bridge-v2:scheduler
           |  |  |  +--rw ats-bridge-v2:scheduler-ref?      -> ../../../../schedulers/scheduler-instance-table/scheduler-
instance-id
           |  |  |  +--rw ats-bridge-v2:scheduler-enable?   boolean
           +--rw ats-bridge-v2:schedulers
           |  +--rw ats-bridge-v2:scheduler-instance-table* [scheduler-instance-id]
           |  |  +--rw ats-bridge-v2:scheduler-instance-id         uint32
           |  |  +--rw ats-bridge-v2:committed-information-rate    uint64
           |  |  +--rw ats-bridge-v2:committed-burst-size          uint32
           |  |  +--rw ats-bridge-v2:scheduler-group-ref           -> ../../../scheduler-groups/scheduler-group-instance-
table/scheduler-group-instance-id
           |  +--ro ats-bridge-v2:max-scheduler-instances?    uint32
           +--rw ats-bridge-v2:scheduler-groups
           |  +--rw ats-bridge-v2:scheduler-group-instance-table* [scheduler-group-instance-id]
```

802.1DC-2024

- **9.1 YANG framework**
  - In order to make certain YANG modules that control features in IEEE Std 802.1Q and its amendments easy to incorporate into both IEEE 802.1Q Bridges and IEEE 802.1Q end stations, those YANG modules are defined in pairs, one pair for each feature.
  - The modules defined in this clause use the modules that control IEEE 802.1Q features required for GFQoS to augment ***systems*** and/or ***interfaces***, instead of ***Bridge components*** and/or ***Bridge Ports***.
- This implies that “There is one Scheduler Instance Table and one Scheduler Group Instance Table per Bridge Component” rule applies to 802.1DC system.

802.1DC-2024

- **Current ieee802-dot1dc-ats-if.yang**
  - *ats:ats-parameters* is under augment of “stream-filters/stream-filter-instance-table”
  - It creates multiple ***the Scheduler Instance Table (12.31.5)*** and ***the Scheduler Group Instance Table (12.31.6)*** under ***the Stream Filter Instance Table (12.31.2)*** than one per the Bridge Component.

Current 802.1DC ATS YANG schema

```
module: ietf-system
  +--rw system
  |  +--rw ats-if:stream-gates
  |  |  +--rw ats-if:stream-gate-instance-table* [stream-gate-instance-id]
  |  +--rw ats-if:stream-filters
  |  |  +--rw ats-if:stream-filter-instance-table* [stream-filter-instance-id]
  |  |  |  +--rw ats-if:stream-gate-ref -> ../../../stream-gates/stream-gate-instance-table/stream-gate-instance-id
  |  |  |  +--rw ats-if:schedulers
  |  |  |  |  +--rw ats-if:scheduler-instance-table* [scheduler-instance-id]
  |  |  |  |  |  +--rw ats-if:scheduler-group-ref -> ../../../scheduler-groups/scheduler-group-instance-table/scheduler-group-
instance-id
  |  |  |  |  +--ro ats-if:max-scheduler-instances?    uint32
  |  |  |  +--rw ats-if:scheduler-groups
  |  |  |  |  +--rw ats-if:scheduler-group-instance-table* [scheduler-group-instance-id]
  |  |  |  +--rw ats-if:scheduler
  |  |  |     +--rw ats-if:scheduler-ref?      -> ../../schedulers/scheduler-instance-table/scheduler-instance-id
  |  |  |     +--rw ats-if:scheduler-enable?   boolean
```

Proposed solution

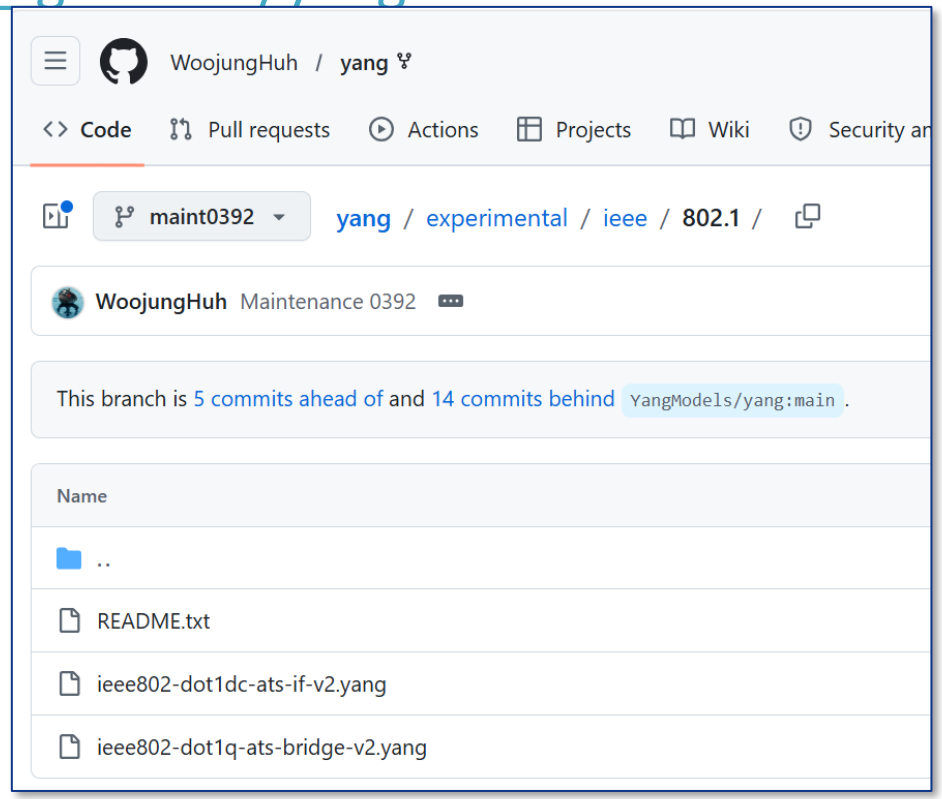
- **Modified ieee802-dot1dc-ats-if.yang**
  - Move *ats:ats-parameters* out of augment of “stream-filters/stream-filter-instance-table”
  - It creates ***single Scheduler Instance Table (12.31.5)*** and ***single Scheduler Group Instance Table (12.31.6)*** under the Bridge Component.

New 802.1DC ATS YANG schema

```
module: ietf-system
  +--rw system
  |  +--rw ats-if-v2:schedulers
  |  |  +--rw ats-if-v2:scheduler-instance-table* [scheduler-instance-id]
  |  |  |  +--rw ats-if-v2:scheduler-group-ref -> ../../../scheduler-groups/scheduler-group-instance-table/scheduler-group-
instance-id
  |  |  +--ro ats-if-v2:max-scheduler-instances?    uint32
  |  +--rw ats-if-v2:scheduler-groups
  |  |  +--rw ats-if-v2:scheduler-group-instance-table* [scheduler-group-instance-id]
  |  +--rw ats-if-v2:stream-gates
  |  |  +--rw ats-if-v2:stream-gate-instance-table* [stream-gate-instance-id]
  |  +--rw ats-if-v2:stream-filters
  |     +--rw ats-if-v2:stream-filter-instance-table* [stream-filter-instance-id]
  |     |  +--rw ats-if-v2:stream-gate-ref -> ../../../stream-gates/stream-gate-instance-table/stream-gate-instance-id
  |     |  +--rw ats-if-v2:scheduler
  |     |     +--rw ats-if-v2:scheduler-ref? -> ../../../../schedulers/scheduler-instance-table/scheduler-instance-id
  |     |     +--rw ats-if-v2:scheduler-enable?   boolean
```

Proposed YANG files

- **Working repo**
  - GitHub: https://github.com/WoojungHuh/yang/tree/maint0392
    - Private repo folked from https://github.com/YangModels/yang
    - Branch name: maint0392
  - Files are copied into
    - experimental/ieee/802.1 and,
    - Updated file names are appended by “-v2”
      - ieee802-dot1dc-ats-if-v2.yang
      - ieee802-dot1q-ats-bridge-v2.yang



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#0393 Update for Bridge & End Station

Need a clarification of using stream-filter when a bridge uses both ATS and PSFP

802.1Q allows both PSFP and ATS simultaneously.

- **8.6.5 states**
  - “PSFP and ATS share common per-stream classification and metering elements, as shown in Figure 8-13.”
- **8.6.5.2 d) states**
  - “… A given stream filter can be configured with flow meters and an ATS scheduler if both PSFP and ATS are supported.”
- **8.6.5.2.2 b) states**
  - “If the Bridge component does not support PSFP in addition to ATS, each stream gate only supports IPV assignment. …”
  - NOTE 2—For bridges with support for ATS, and without support for PSFP, stream gates of ATS traffic will never close. In this case, stream gates are only used for IPV assignment.

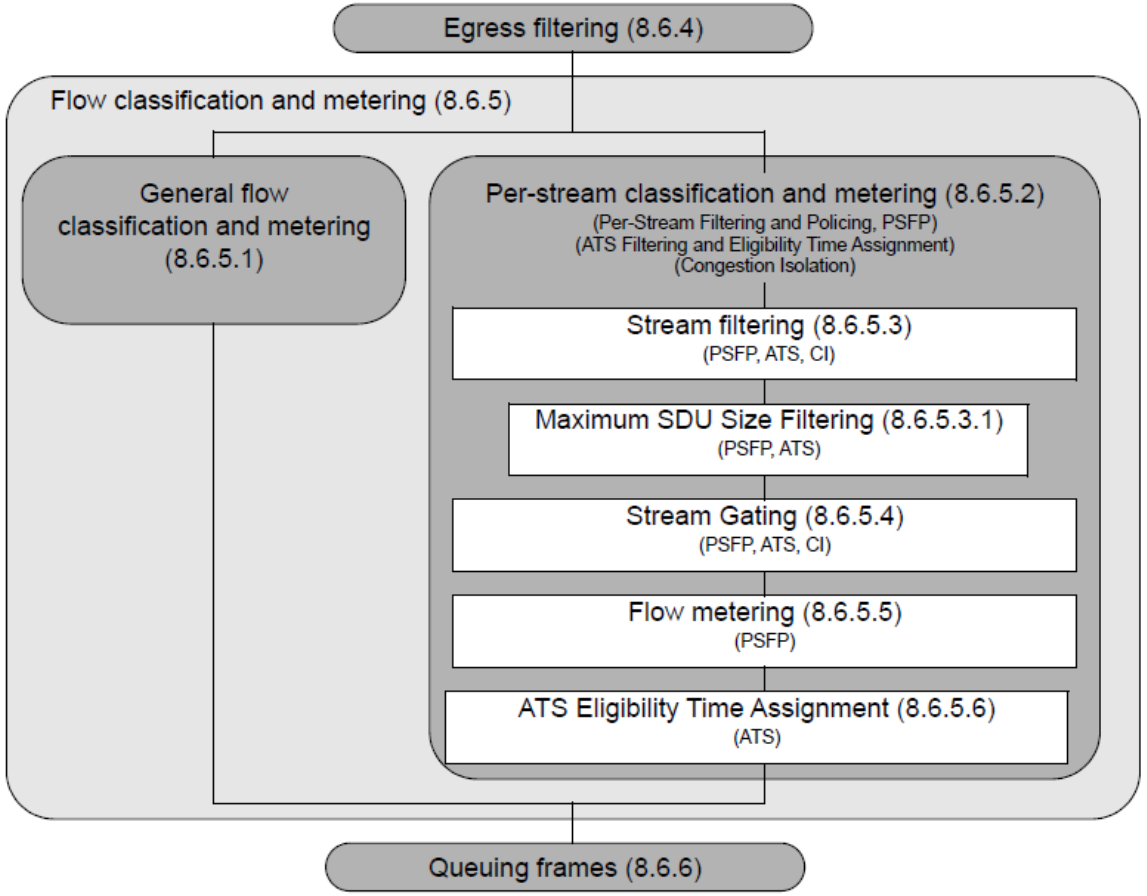
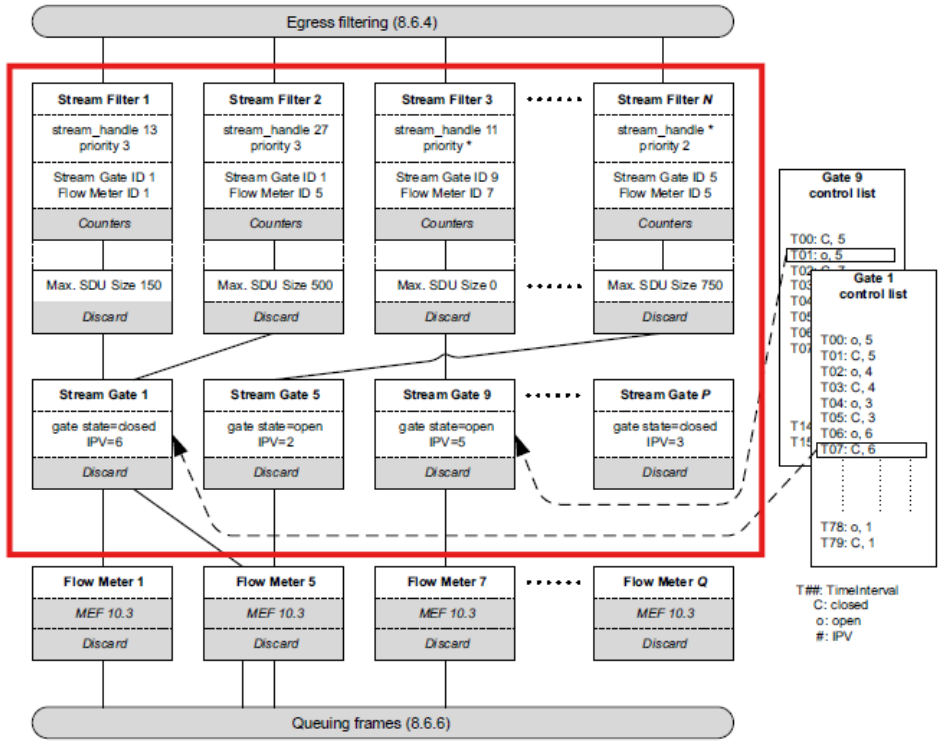


Figure 8-13—Flow classification and metering

Usage of Stream Filters and Stream Gates

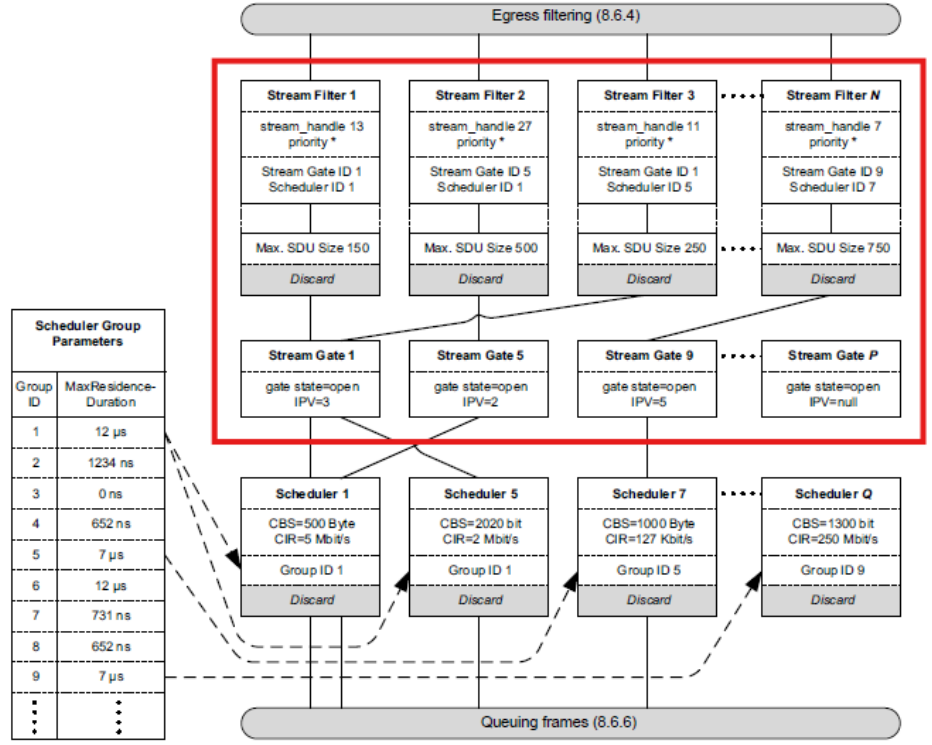
- **PSFP**



KEY
Counters: Matching, passing, and discarded frame counters (8.6.5.3).
Discard: Frame discarding abilities and parameters (8.6.5.3.1, 8.6.5.4, 8.6.5.5).
MEF 10.3: Flow metering based on MEF 10.3 Bandwidth Profile parameters and algorithm as specified in 8.6.5.5.

Figure 8-14—Per-stream classification for PSFP

- **ATS**



KEY
Discard: Frame discarding abilities and parameters (Clause 8.6.5.3.1, Clause 8.6.5.4, 8.6.5.6).
CBS: CommittedBurstSize parameter (8.6.5.6, 8.6.11.3.5).
CIR: CommittedInformationRate parameter (8.6.5.6, 8.6.11.3.6).

Figure 8-15—Per-stream classification and metering for ATS

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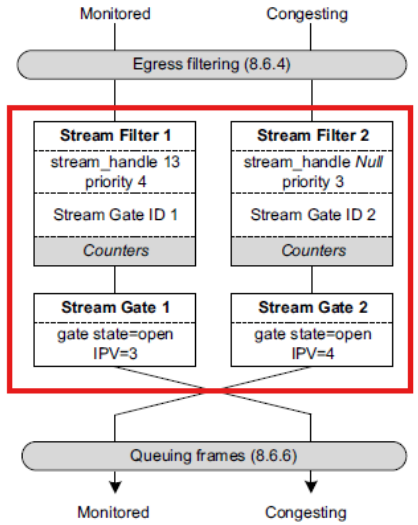
- **Congestion Isolation**



KEY
Stream ID: stream filter instance identifier (8.6.5.3)
Gate ID: stream gate instance identifier (8.6.5.3, 8.6.5.4)

Figure 8-16—Per-stream classification and assignment for CI

- **Stream gates**
  - Shared by PSFP, ATS, CI
- **Stream Filters**
  - Shared by PSFP, ATS, CI
- **Flow Meters**
  - Used by PSFP

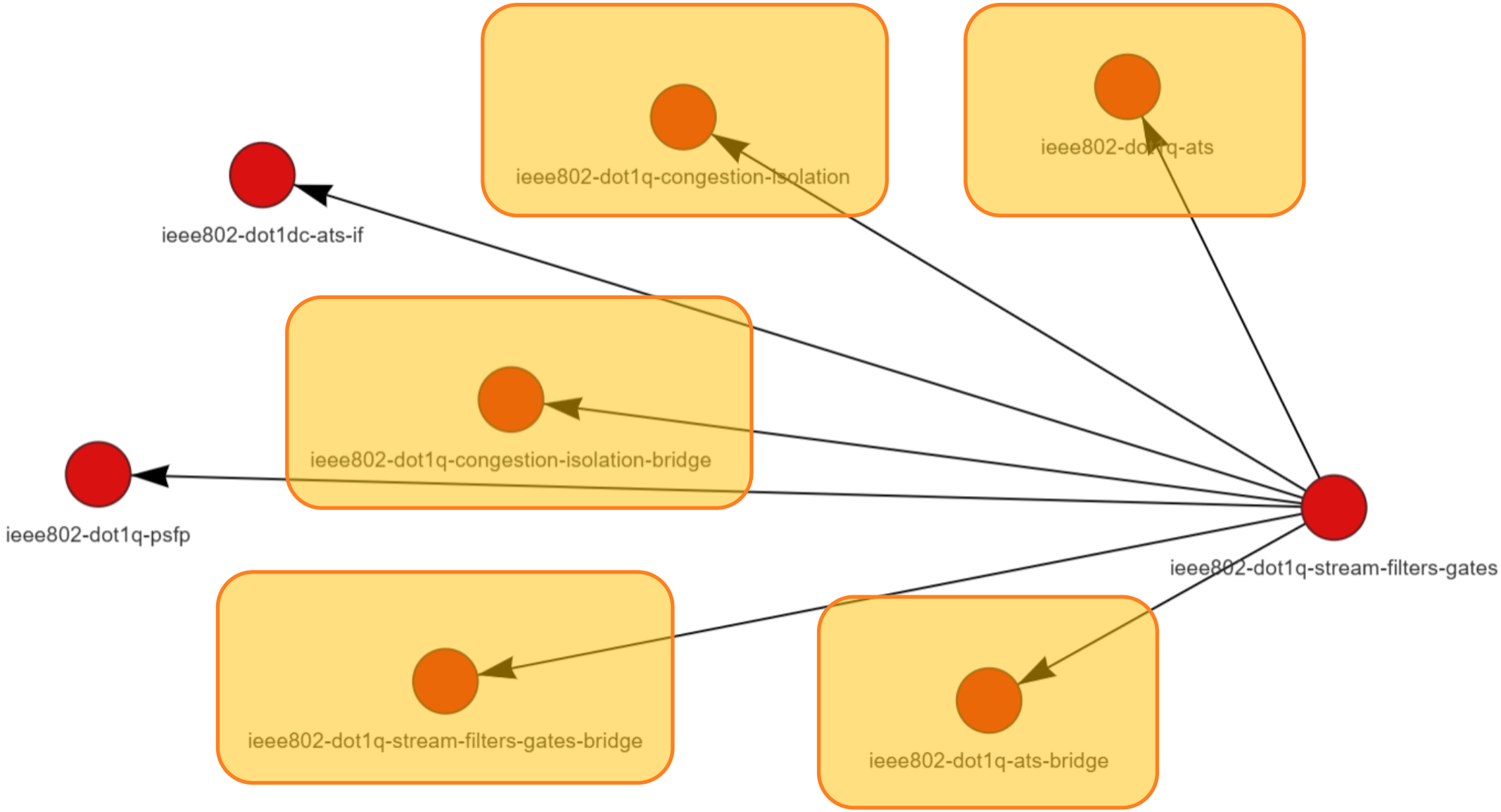
Number of Instance Tables

- **12.31.2 The Stream Filter Instance Table**
  - There is one Stream Filter Instance Table per Bridge Component.
- **12.31.3 The Stream Gate Instance Table**
  - There is one Stream Gate Instance Table per Bridge Component.
- **12.31.4 The Flow Meter Instance Table**
  - There is one Flow Meter Instance Table per Bridge component.

Current 802.1Q ATS/PSFP/CI YANG schema

```
module: ieee802-dot1q-bridge
   +--rw bridges
      +--rw bridge* [name]
           +--rw component* [name]
                +--rw ats-bridge:stream-gates
                |  +--rw ats-bridge:stream-gate-instance-table* [stream-gate-instance-id]
                +--rw ats-bridge:stream-filters
                |  +--rw ats-bridge:stream-filter-instance-table* [stream-filter-instance-id]
                +--rw psfp-bridge:flow-meters
                |  +--rw psfp-bridge:flow-meter-instance-table* [flow-meter-instance-id]
                +--rw psfp-bridge:stream-gates
                |  +--rw psfp-bridge:stream-gate-instance-table* [stream-gate-instance-id]
                +--rw psfp-bridge:stream-filters
                |  +--rw psfp-bridge:stream-filter-instance-table* [stream-filter-instance-id]
                +--rw ci-bridge:stream-gates {congestion-isolation-bridge}?
                |  +--rw ci-bridge:stream-gate-instance-table* [stream-gate-instance-id]
                +--rw ci-bridge:stream-filters {congestion-isolation-bridge}?
                        +--rw ci-bridge:stream-filter-instance-table* [stream-filter-instance-id]
```

sfsg:sfsg-parameters reference analysis



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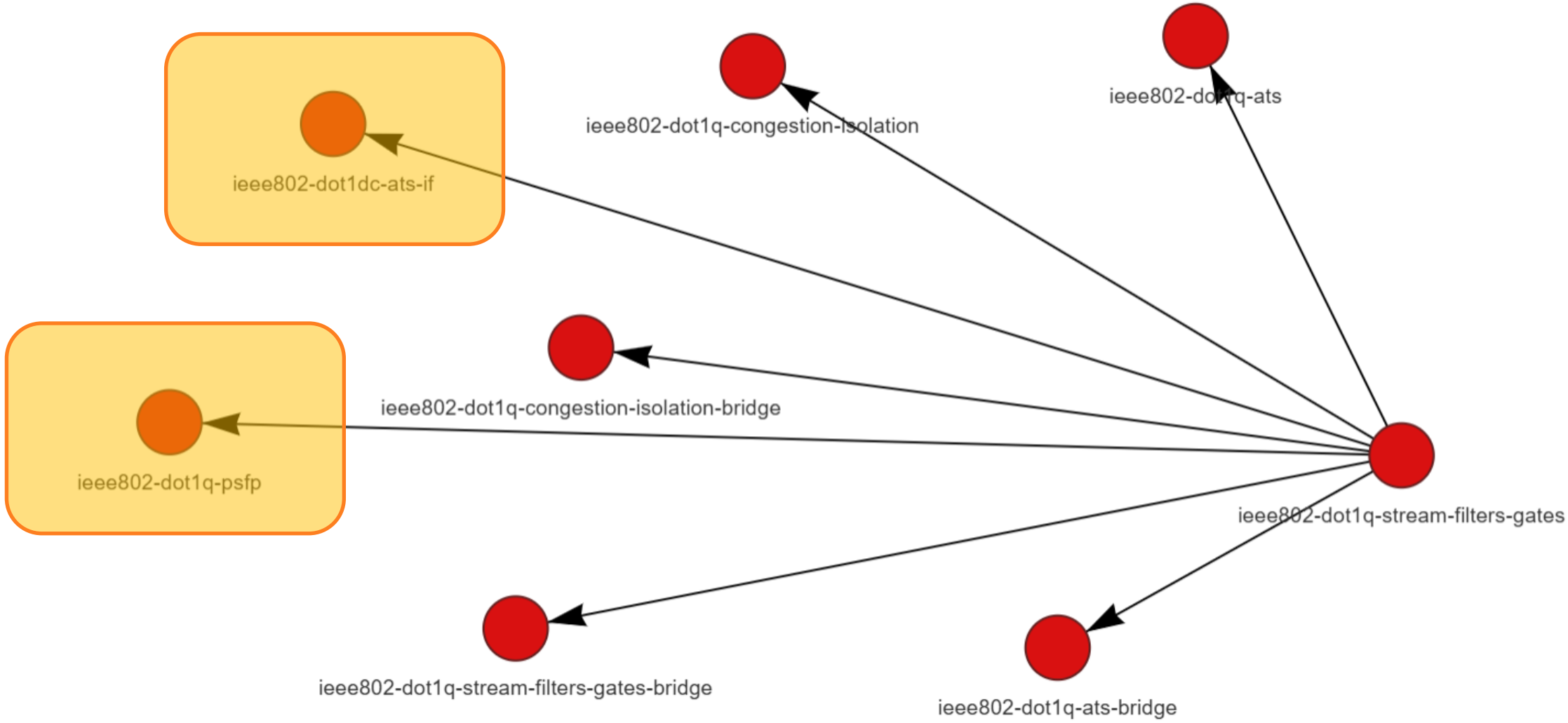
Current 802.1Q ATS/PSFP/CI YANG schema

- **Current implementation**
  - Define "*grouping sfsg-parameters*" in ieee802-dot1q-stream-filters-gates.yang
  - Uses "*uses sfsg:sfsg-parameters*" in 3 modules of ieee802-dot1q-[ats/psfp/congestion-isolation]-bridge.yang
- **Problem**
  - "*Uses*" statement copies the nodes defined by the "*grouping*" into the current schema tree.
  - This creates **own Stream Filter and Stream Gate of each module** under the bridge component.

Current 802.1DC ATS/PSFP YANG schema

```
module: ietf-system
   +--rw system
   |  +--rw ats-if:stream-gates
   |  |  +--rw ats-if:stream-gate-instance-table* [stream-gate-instance-id]
   |  +--rw ats-if:stream-filters
   |  |  +--rw ats-if:stream-filter-instance-table* [stream-filter-instance-id]
   |  +--rw psfp-sys:flow-meters
   |  |  +--rw psfp-sys:flow-meter-instance-table* [flow-meter-instance-id]
   |  +--rw psfp-sys:stream-gates
   |  |  +--rw psfp-sys:stream-gate-instance-table* [stream-gate-instance-id]
   |  +--rw psfp-sys:stream-filters
   |     +--rw psfp-sys:stream-filter-instance-table* [stream-filter-instance-id]
```

sfsg:sfsg-parameters reference analysis



MICROCHIP

Current 802.1DC ATS/PSFP YANG schema

- **Current implementation**
  - Define "*grouping sfsg-parameters*" in ieee802-dot1q-stream-filters-gates.yang
  - Uses "*uses sfsg:sfsg-parameters*" in ieee802-dot1dc-psfp-sys.yang (from ieee802-dot1q-psfp.yang) and ieee802-dot1dc-ats-if.yang
- **Problem**
  - "*Uses*" statement copies the nodes defined by the "*grouping*" into the current schema tree.
  - This creates **own Stream Filter and Stream Gate of each module** under the bridge component.

Proposed Solution

- **Removing “use sfsg:sfsg-parameters” in**
  - …ats-bridge.yang, …psfp-bridge.yang (i.e., …pspf.yang) and …congestion-isolation-bridge (i.e., ..congestion-isolation.yang)
  - …ats-if.yang, & …psfp-sys.yang
- **Use a base modules**
  - ieee802-dot1q-streams-filters-gates-bridges.yang for bridge functions
    - for bridge (802.1Q) : sfsg-bridge
  - ieee802-dot1dc-streams-filters-gates-sys.yang for system functions
    - for system (802.1DC) : sfsg-sys
- **Each module augment into base node created by base modules**
  - sfsg-bridge
  - ats-bridge
  - psfp-bridge
  - ci-bridge

New 802.1Q ATS/PSFP/CI YANG schema

```
module: ieee802-dot1q-bridge
    +--rw bridges
        +--rw bridge* [name]
           +--rw component* [name]
              +--rw sfsg-bridge:stream-gates
              |  +--rw sfsg-bridge:stream-gate-instance-table* [stream-gate-instance-id]
              +--rw sfsg-bridge:stream-filters
              |  +--rw sfsg-bridge:stream-filter-instance-table* [stream-filter-instance-id]
              +--rw psfp-bridge-v2:flow-meters
              |  +--rw psfp-bridge-v2:flow-meter-instance-table* [flow-meter-instance-id]
```

```
+--rw component* [name]
   +--rw sfsg-bridge:stream-gates
   |  +--rw sfsg-bridge:stream-gate-instance-table* [stream-gate-instance-id]
   |  |  +--rw sfsg-bridge:stream-gate-instance-id                      uint32
   |  |  +--rw sfsg-bridge:gate-enable?                                 boolean
   |  |  +--rw sfsg-bridge:admin-gate-states?                           gate-state-value-type
   |  |  +--rw sfsg-bridge:admin-ipv?                                   ipv-spec-type
   |  |  +--ro psfp-bridge-v2:oper-gate-state?                          sfsg:gate-state-value-type
   |  |  +--rw psfp-bridge-v2:oper-ipv?                                 sfsg:ipv-spec-type
   |  |  +--rw psfp-bridge-v2:admin-control-list
   |  |  |  +--rw psfp-bridge-v2:gate-control-entry* [index]
   |  |  |     +--rw psfp-bridge-v2:index                  uint32
   |  |  |     +--rw psfp-bridge-v2:operation-name         identityref
   |  |  |     +--rw psfp-bridge-v2:time-interval-value?   uint32
   |  |  |     +--rw psfp-bridge-v2:gate-state-value       sfsg:gate-state-value-type
   |  |  |     +--rw psfp-bridge-v2:ipv-spec               sfsg:ipv-spec-type
   |  |  |     +--rw psfp-bridge-v2:interval-octet-max?    uint32
   |  |  +--ro psfp-bridge-v2:oper-control-list
   |  |  |  +--ro psfp-bridge-v2:gate-control-entry* [index]
   |  |  |     +--ro psfp-bridge-v2:index                  uint32
   |  |  |     +--ro psfp-bridge-v2:operation-name         identityref
   |  |  |     +--ro psfp-bridge-v2:time-interval-value?   uint32
   |  |  |     +--ro psfp-bridge-v2:gate-state-value       sfsg:gate-state-value-type
   |  |  |     +--ro psfp-bridge-v2:ipv-spec               sfsg:ipv-spec-type
   |  |  |     +--ro psfp-bridge-v2:interval-octet-max?    uint32
   |  |  +--rw psfp-bridge-v2:admin-cycle-time
   |  |  |  +--rw psfp-bridge-v2:numerator?     uint32
   |  |  |  +--rw psfp-bridge-v2:denominator?   uint32
   |  |  +--ro psfp-bridge-v2:oper-cycle-time
   |  |  |  +--ro psfp-bridge-v2:numerator?     uint32
   |  |  |  +--ro psfp-bridge-v2:denominator?   uint32
   |  |  +--rw psfp-bridge-v2:admin-cycle-time-extension?               uint32
   |  |  +--ro psfp-bridge-v2:oper-cycle-time-extension?                uint32
   |  |  +--rw psfp-bridge-v2:admin-base-time
   |  |  |  +--rw psfp-bridge-v2:seconds?       uint64
   |  |  |  +--rw psfp-bridge-v2:nanoseconds?   uint32
   |  |  +--ro psfp-bridge-v2:oper-base-time
   |  |  |  +--ro psfp-bridge-v2:seconds?       uint64
   |  |  |  +--ro psfp-bridge-v2:nanoseconds?   uint32
   |  |  +--rw psfp-bridge-v2:config-change?                            boolean
   |  |  +--ro psfp-bridge-v2:config-change-time
   |  |  |  +--ro psfp-bridge-v2:seconds?       uint64
   |  |  |  +--ro psfp-bridge-v2:nanoseconds?   uint32
   |  |  +--ro psfp-bridge-v2:tick-granularity?                         uint32
   |  |  +--ro psfp-bridge-v2:current-time
   |  |  |  +--ro psfp-bridge-v2:seconds?       uint64
   |  |  |  +--ro psfp-bridge-v2:nanoseconds?   uint32
   |  |  +--ro psfp-bridge-v2:config-pending?                           boolean
   |  |  +--ro psfp-bridge-v2:config-change-error?                      yang:counter64
   |  |  +--rw psfp-bridge-v2:gate-closed-due-to-invalid-rx-enable?     boolean
   |  |  +--rw psfp-bridge-v2:gate-closed-due-to-invalid-rx?            boolean
   |  |  +--rw psfp-bridge-v2:gate-closed-due-octets-exceeded-enable?   boolean
   |  |  +--rw psfp-bridge-v2:gate-closed-due-octets-exceeded?          boolean
   |  +--ro sfsg-bridge:max-stream-gate-instances?    uint32
   |  +--rw psfp-bridge-v2:supported-list-max?        uint32
   |  +--rw psfp-bridge-v2:supported-cycle-max
   |  |  +--rw psfp-bridge-v2:numerator?     uint32
   |  |  +--rw psfp-bridge-v2:denominator?   uint32
   |  +--rw psfp-bridge-v2:supported-interval-max?    uint32
```

```
+--rw sfsg-bridge:stream-filters
|  +--rw sfsg-bridge:stream-filter-instance-table* [stream-filter-instance-id]
|  |  +--rw sfsg-bridge:stream-filter-instance-id                      uint32
|  |  +--rw (sfsg-bridge:stream-handle-spec)?
|  |  |  +--:(sfsg-bridge:wildcard)
|  |  |  |  +--rw sfsg-bridge:wildcard?                                empty
|  |  |  +--:(sfsg-bridge:stream-handle)
|  |  |  |  +--rw sfsg-bridge:stream-handle                            uint32
|  |  |  +--:(ci-bridge-v2:null-handle) {congestion-isolation-bridge}?
|  |  |     +--rw ci-bridge-v2:null-handle?                            empty
|  |  +--rw sfsg-bridge:priority-spec                                  priority-spec-type
|  |  +--rw sfsg-bridge:max-sdu-size                                   uint32
|  |  +--rw sfsg-bridge:stream-blocked-due-to-oversize-frame-enabled?   boolean
|  |  +--rw sfsg-bridge:stream-blocked-due-to-oversize-frame?           boolean
|  |  +--rw sfsg-bridge:stream-gate-ref                                -> ../../../stream-gates/stream-gate-instance-table/stream-gate-instance-id
|  |  +--rw ats-bridge-v2:scheduler
|  |  |  +--rw ats-bridge-v2:scheduler-ref?      -> ../../../../schedulers/scheduler-instance-table/scheduler-instance-id
|  |  |  +--rw ats-bridge-v2:scheduler-enable?   boolean
|  |  +--ro psfp-bridge-v2:matching-frames-count?                      yang:counter64
|  |  +--ro psfp-bridge-v2:passing-frames-count?                       yang:counter64
|  |  +--ro psfp-bridge-v2:not-passing-frames-count?                   yang:counter64
|  |  +--ro psfp-bridge-v2:red-frames-count?                           yang:counter64
|  |  +--ro psfp-bridge-v2:passing-sdu-count?                          yang:counter64
|  |  +--ro psfp-bridge-v2:not-passing-sdu-count?                      yang:counter64
|  |  +--rw psfp-bridge-v2:flow-meter-ref?                             -> ../../../flow-meters/flow-meter-instance-table/flow-meter-instance-id
|  |  +--rw psfp-bridge-v2:flow-meter-enable?                          boolean
|  +--ro sfsg-bridge:max-stream-filter-instances?    uint32
```

```
+--rw psfp-bridge-v2:flow-meters
|  +--rw psfp-bridge-v2:flow-meter-instance-table* [flow-meter-instance-id]
|  |  +--rw psfp-bridge-v2:flow-meter-instance-id        uint32
|  |  +--rw psfp-bridge-v2:committed-information-rate    uint64
|  |  +--rw psfp-bridge-v2:committed-burst-size          uint32
|  |  +--rw psfp-bridge-v2:excess-information-rate       uint64
|  |  +--rw psfp-bridge-v2:excess-burst-size             uint32
|  |  +--rw psfp-bridge-v2:coupling-flag                 enumeration
|  |  +--rw psfp-bridge-v2:color-mode                    enumeration
|  |  +--rw psfp-bridge-v2:drop-on-yellow                boolean
|  |  +--rw psfp-bridge-v2:mark-all-frames-red-enable?   boolean
|  |  +--rw psfp-bridge-v2:mark-all-frames-red?          boolean
|  +--rw psfp-bridge-v2:max-flow-meter-instances?    uint32
```

New 802.1DC ATS/PSFP YANG schema

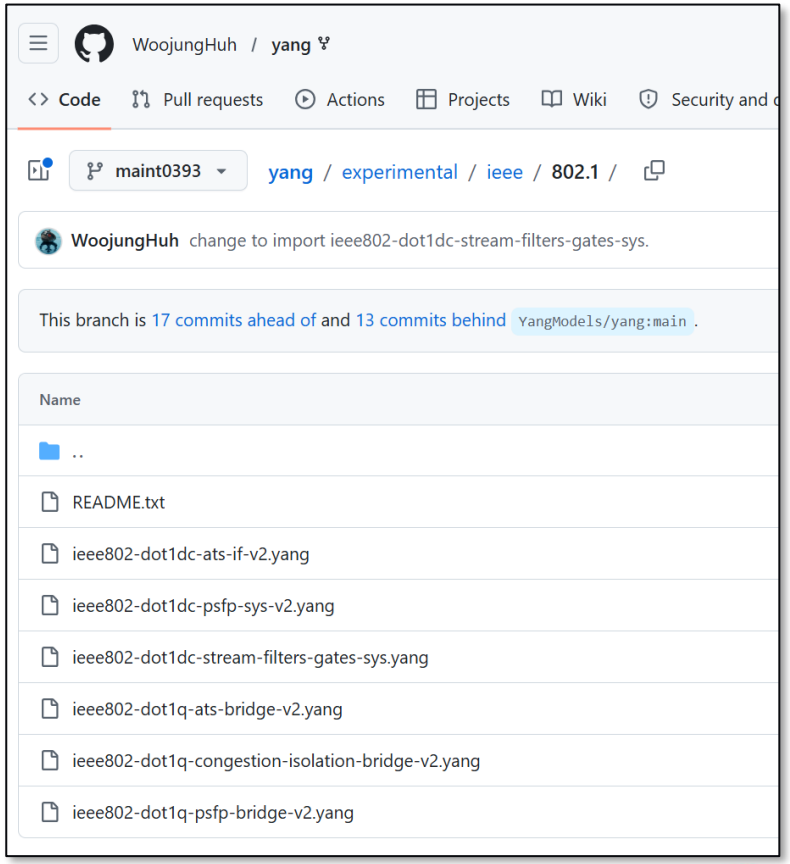
```
module: ietf-system
  +--rw system
     +--rw sfsg-sys:stream-gates
     |  +--rw sfsg-sys:stream-gate-instance-table* [stream-gate-instance-id]
     +--rw sfsg-sys:stream-filters
     |  +--rw sfsg-sys:stream-filter-instance-table* [stream-filter-instance-id]
     +--rw psfp-sys-v2:flow-meters
        +--rw psfp-sys-v2:flow-meter-instance-table* [flow-meter-instance-id]
```

```
module: ietf-system
  +--rw system
  |  +--rw sfsg-sys:stream-gates
  |  |  +--rw sfsg-sys:stream-gate-instance-table* [stream-gate-instance-id]
  |  |  |  +--rw sfsg-sys:stream-gate-instance-id                      uint32
  |  |  |  +--rw sfsg-sys:gate-enable?                                 boolean
  |  |  |  +--rw sfsg-sys:admin-gate-states?                           gate-state-value-type
  |  |  |  +--rw sfsg-sys:admin-ipv?                                   ipv-spec-type
  |  |  |  +--ro psfp-sys-v2:oper-gate-state?                          sfsg:gate-state-value-type
  |  |  |  +--rw psfp-sys-v2:oper-ipv?                                 sfsg:ipv-spec-type
  |  |  |  +--rw psfp-sys-v2:admin-control-list
  |  |  |  |  +--rw psfp-sys-v2:gate-control-entry* [index]
  |  |  |  |     +--rw psfp-sys-v2:index                  uint32
  |  |  |  |     +--rw psfp-sys-v2:operation-name         identityref
  |  |  |  |     +--rw psfp-sys-v2:time-interval-value?   uint32
  |  |  |  |     +--rw psfp-sys-v2:gate-state-value       sfsg:gate-state-value-type
  |  |  |  |     +--rw psfp-sys-v2:ipv-spec               sfsg:ipv-spec-type
  |  |  |  |     +--rw psfp-sys-v2:interval-octet-max?    uint32
  |  |  |  +--ro psfp-sys-v2:oper-control-list
  |  |  |  |  +--ro psfp-sys-v2:gate-control-entry* [index]
  |  |  |  |     +--ro psfp-sys-v2:index                  uint32
  |  |  |  |     +--ro psfp-sys-v2:operation-name         identityref
  |  |  |  |     +--ro psfp-sys-v2:time-interval-value?   uint32
  |  |  |  |     +--ro psfp-sys-v2:gate-state-value       sfsg:gate-state-value-type
  |  |  |  |     +--ro psfp-sys-v2:ipv-spec               sfsg:ipv-spec-type
  |  |  |  |     +--ro psfp-sys-v2:interval-octet-max?    uint32
  |  |  |  +--rw psfp-sys-v2:admin-cycle-time
  |  |  |  |  +--rw psfp-sys-v2:numerator?     uint32
  |  |  |  |  +--rw psfp-sys-v2:denominator?   uint32
  |  |  |  +--ro psfp-sys-v2:oper-cycle-time
  |  |  |  |  +--ro psfp-sys-v2:numerator?     uint32
  |  |  |  |  +--ro psfp-sys-v2:denominator?   uint32
  |  |  |  +--rw psfp-sys-v2:admin-cycle-time-extension?               uint32
  |  |  |  +--ro psfp-sys-v2:oper-cycle-time-extension?                uint32
  |  |  |  +--rw psfp-sys-v2:admin-base-time
  |  |  |  |  +--rw psfp-sys-v2:seconds?       uint64
  |  |  |  |  +--rw psfp-sys-v2:nanoseconds?   uint32
  |  |  |  +--ro psfp-sys-v2:oper-base-time
  |  |  |  |  +--ro psfp-sys-v2:seconds?       uint64
  |  |  |  |  +--ro psfp-sys-v2:nanoseconds?   uint32
  |  |  |  +--rw psfp-sys-v2:config-change?                            boolean
  |  |  |  +--ro psfp-sys-v2:config-change-time
  |  |  |  |  +--ro psfp-sys-v2:seconds?       uint64
  |  |  |  |  +--ro psfp-sys-v2:nanoseconds?   uint32
  |  |  |  +--ro psfp-sys-v2:tick-granularity?                         uint32
  |  |  |  +--ro psfp-sys-v2:current-time
  |  |  |  |  +--ro psfp-sys-v2:seconds?       uint64
  |  |  |  |  +--ro psfp-sys-v2:nanoseconds?   uint32
  |  |  |  +--ro psfp-sys-v2:config-pending?                           boolean
  |  |  |  +--ro psfp-sys-v2:config-change-error?                      yang:counter64
  |  |  |  +--rw psfp-sys-v2:gate-closed-due-to-invalid-rx-enable?     boolean
  |  |  |  +--rw psfp-sys-v2:gate-closed-due-to-invalid-rx?            boolean
  |  |  |  +--rw psfp-sys-v2:gate-closed-due-octets-exceeded-enable?   boolean
  |  |  |  +--rw psfp-sys-v2:gate-closed-due-octets-exceeded?          boolean
  |  |  +--ro sfsg-sys:max-stream-gate-instances?    uint32
  |  |  +--rw psfp-sys-v2:supported-list-max?        uint32
  |  |  +--rw psfp-sys-v2:supported-cycle-max
  |  |  |  +--rw psfp-sys-v2:numerator?     uint32
  |  |  |  +--rw psfp-sys-v2:denominator?   uint32
  |  |  +--rw psfp-sys-v2:supported-interval-max?    uint32
```

```
module: ietf-system
  +--rw system
  |  +--rw sfsg-sys:stream-filters
  |  |  +--rw sfsg-sys:stream-filter-instance-table* [stream-filter-instance-id]
  |  |  |  +--rw sfsg-sys:stream-filter-instance-id                      uint32
  |  |  |  +--rw (sfsg-sys:stream-handle-spec)?
  |  |  |  |  +--:(sfsg-sys:wildcard)
  |  |  |  |  |  +--rw sfsg-sys:wildcard?                               empty
  |  |  |  |  +--:(sfsg-sys:stream-handle)
  |  |  |  |     +--rw sfsg-sys:stream-handle                           uint32
  |  |  |  +--rw sfsg-sys:priority-spec                                 priority-spec-type
  |  |  |  +--rw sfsg-sys:max-sdu-size                                  uint32
  |  |  |  +--rw sfsg-sys:stream-blocked-due-to-oversize-frame-enabled?  boolean
  |  |  |  +--rw sfsg-sys:stream-blocked-due-to-oversize-frame?          boolean
  |  |  |  +--rw sfsg-sys:stream-gate-ref                               -> ../../../stream-gates/stream-gate-instance-table/stream-gate-instance-id
  |  |  |  +--rw ats-if-v2:scheduler
  |  |  |  |  +--rw ats-if-v2:scheduler-ref?      -> ../../../../schedulers/scheduler-instance-table/scheduler-instance-id
  |  |  |  |  +--rw ats-if-v2:scheduler-enable?   boolean
  |  |  |  +--ro psfp-sys-v2:matching-frames-count?                     yang:counter64
  |  |  |  +--ro psfp-sys-v2:passing-frames-count?                      yang:counter64
  |  |  |  +--ro psfp-sys-v2:not-passing-frames-count?                  yang:counter64
  |  |  |  +--ro psfp-sys-v2:red-frames-count?                          yang:counter64
  |  |  |  +--ro psfp-sys-v2:passing-sdu-count?                         yang:counter64
  |  |  |  +--ro psfp-sys-v2:not-passing-sdu-count?                     yang:counter64
  |  |  |  +--rw psfp-sys-v2:flow-meter-ref?                            -> ../../../flow-meters/flow-meter-instance-table/flow-meter-instance-id
  |  |  |  +--rw psfp-sys-v2:flow-meter-enable?                         boolean
  |  |  +--ro sfsg-sys:max-stream-filter-instances?    uint32
  |  +--rw psfp-sys-v2:flow-meters
  |     +--rw psfp-sys-v2:flow-meter-instance-table* [flow-meter-instance-id]
  |     |  +--rw psfp-sys-v2:flow-meter-instance-id        uint32
  |     |  +--rw psfp-sys-v2:committed-information-rate    uint64
  |     |  +--rw psfp-sys-v2:committed-burst-size          uint32
  |     |  +--rw psfp-sys-v2:excess-information-rate       uint64
  |     |  +--rw psfp-sys-v2:excess-burst-size             uint32
  |     |  +--rw psfp-sys-v2:coupling-flag                 enumeration
  |     |  +--rw psfp-sys-v2:color-mode                    enumeration
  |     |  +--rw psfp-sys-v2:drop-on-yellow                boolean
  |     |  +--rw psfp-sys-v2:mark-all-frames-red-enable?   boolean
  |     |  +--rw psfp-sys-v2:mark-all-frames-red?          boolean
  |     +--rw psfp-sys-v2:max-flow-meter-instances?    uint32
```

Proposed YANG files

- **Working repo**
  - GitHub: https://github.com/WoojungHuh/yang/tree/maint0393
    - Private repo folked from https://github.com/YangModels/yang
    - Branch name: maint0393
  - Files are copied into
    - experimental/ieee/802.1, and
    - Updated file names are appended by “-v2”
      - ieee802-dot1dc-ats-if-v2.yang
      - ieee802-dot1dc-psfp-sys-v2.yang
      - ieee802-dot1q-ats-bridge-v2.yang
      - ieee802-dot1q-congestion-isolation-bridge-v2.yang
      - ieee802-dot1q-psfp-bridge-v2.yang
    - New file created
      - ieee802-dot1dc-stream-filter-gates-sys.yang



Thank You

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