

# YANG Modules for PSFP and ATS

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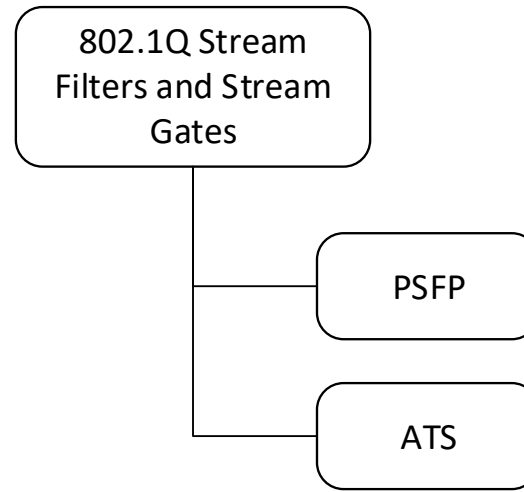
## About

- 802.1Qcr (ATS) extends 802.1Qci (PSFP) at certain places
- For 802.1Qcr, it was agreed that <http://www.ieee802.org/1/files/private/cr-drafts/d0/802-1Qcr-D0-1-dis.pdf>
  1. YANG modules will be provided
  2. PSFP and ATS should be refactored in a later stage to avoid redundancy in 802.1Q
- The 802.1Qcr editor (author of this slide set) developed YANG modules that cover both, ATS and PSFP, in a modular structure.
- The modular structure gives a preview of how the aforementioned refactoring can look like.
- All PSFP-related parts in the YANG modules, as well as this presentation, are an individual contribution by the editor of 802.1Qcr.

## Contents

- Overview of the proposed YANG modules
- Issues and Proposals

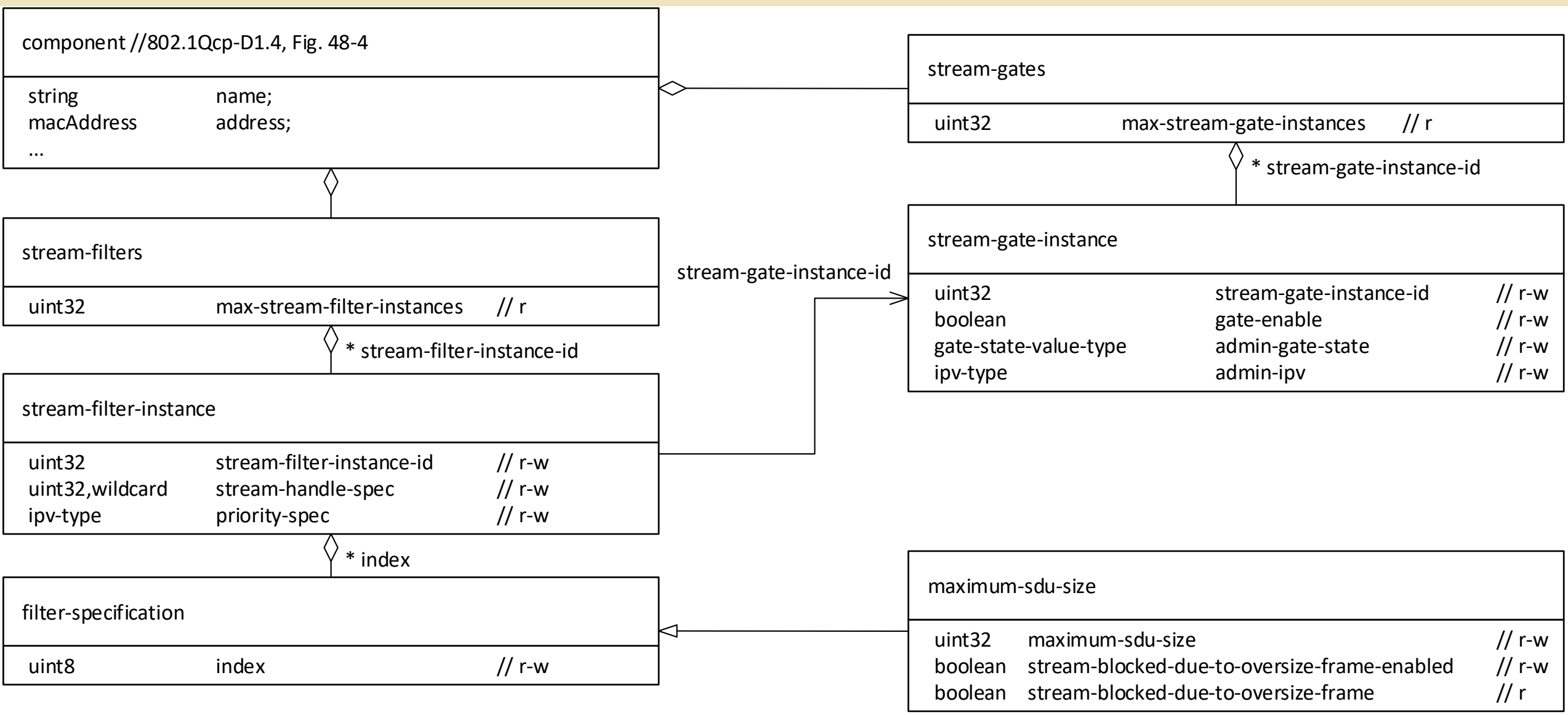
# Overview of the proposed YANG modules



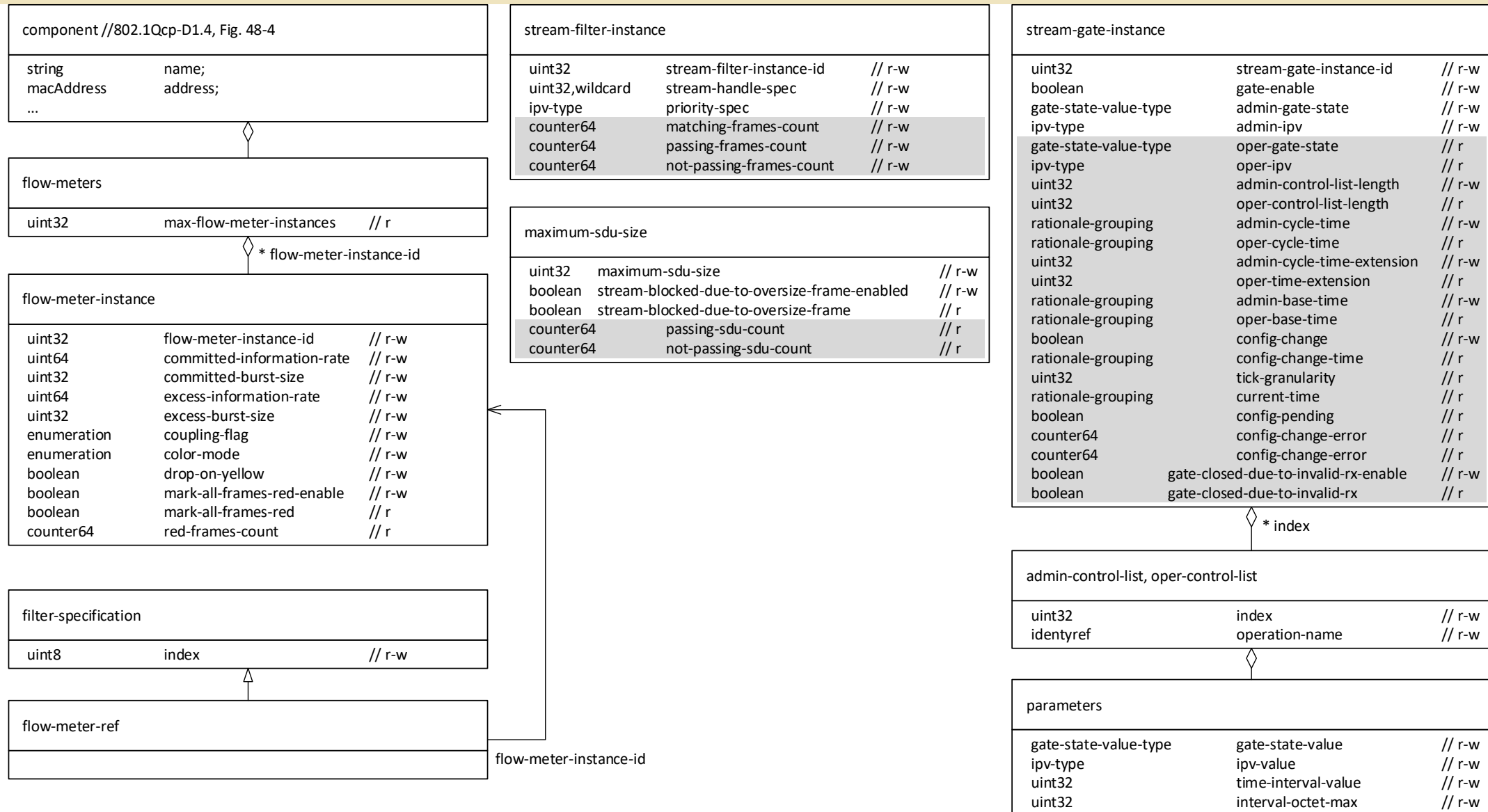
## Three Modules:

1. [ieee802-dot1q-stream-filter-gates](#)  
The subset of functionality used by both, PSFP and ATS. Augments the bridge component node, as specified in 802.1Qcp.
2. [ieee802-dot1q-psfp](#)  
Augments [ieee802-dot1q-stream-filter-gates](#) by the functionality used by PSFP, and not by ATS.
3. [ieee802-dot1q-ats](#)  
Augments [ieee802-dot1q-stream-filter-gates](#) by the functionality used by ATS, and not by PSFP.

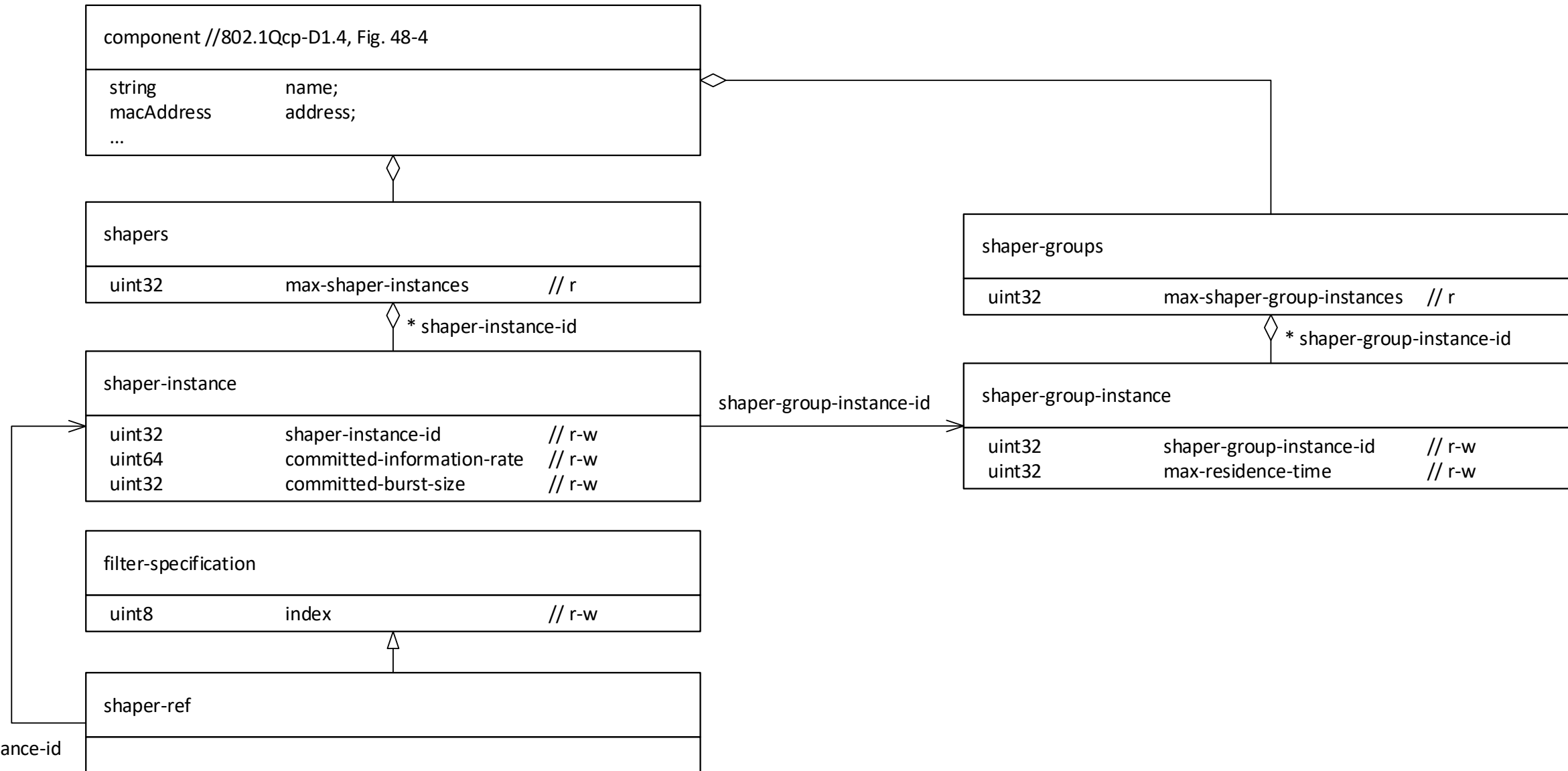
# Common: Graphical Representation



# PSFP: Graphical Representation



# ATS: Graphical Representation



- Three files:
  1. ieee802-dot1q-stream-filter-gates.yang
  2. ieee802-dot1q-psfp.yang
  3. ieee802-dot1q-ats.yang
- Location of the files, plus the related clauses is subject to discussion (read on...)
- The files are attached to this slide set:
  - RAW
  - Formatted in a PDF



# Issues and Proposals

# PSFP: Location?

## Description

- Modules *ieee802-dot1q-stream-filter-gates* and *ieee802-dot1q-psfp* contain parts introduced by project 802.1Qci (PSFP).
- Project 802.1Qcw is designated to write YANG modules for PSFP.
- Project 802.1Qcr is designated to write YANG modules for ATS.
- There are shared parts, i.e. *ieee802-dot1q-stream-filter-gates*, which have to be consistent.

## Issue

- Where to locate which module due to formal reasons?
- Who is maintaining and improving *ieee802-dot1q-psfp* and *ieee802-dot1q-stream-filter-gates*, plus the related clauses?

## Proposal (Discussion)

- Keep *ieee802-dot1q-psfp* and *ieee802-dot1q-stream-filter-gates* in 802.1Qcr drafts for now, at least until project 802.1Qcw starts and has an editor.
- The editor of 802.1Qcr *may* improve *ieee802-dot1q-psfp* until an editor for 802.1Qcw is in place, if time allows it.
- Improvement of *ieee802-dot1q-psfp*, as well as the related clauses, becomes the response of the editor of 802.1Qcw, once this editor is in place.

# Filter Specifications: Cardinality

## Description

- The 802.1Qci MIB allows multiple filter instances of the same type associated with one stream\_handle for each of the following types:
  1. Max. MTU size filter
  2. Flow Meter reference (MEF 10.3)
- ... so does 802.1Qcr (an ATS shaper just adds another filter type):
  3. ATS shaper reference
- ... so do the preliminary YANG modules

## Issue

- More than 1 instance of each type associated with one stream\_handle appear unreasonable. Example:
  - 1) Max. MTU size filter with size 1000 Byte
  - 2) Max. MTU size filter with size 500 Byte
  - Whenever filter 2) gets marks a frame red, filter 1) does too.
- The intention/use-case for such setups is unclear to the author.

## Proposal for YANG (Discussion)

- Allow only one instance per filter type per stream\_handle

# Thank you for your Attention!

## *Questions, Opinions, Ideas?*

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