

# P802.1Qcz Status

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# Agenda

- P802.1Qcz background and references
- Draft standard status and strategies
- Next steps

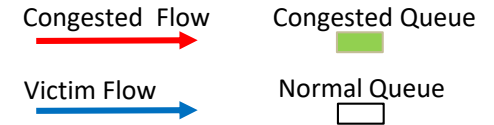
# Short Summary

- Response to feedback from March meeting
  - CIM message generation
  - Reference diagram update
  - Impact of Clause 8 changes by Qcr
- Editor's draft d0.0 posted to Qcz page
  - <https://1.ieee802.org/tsn/802-1qcz/>

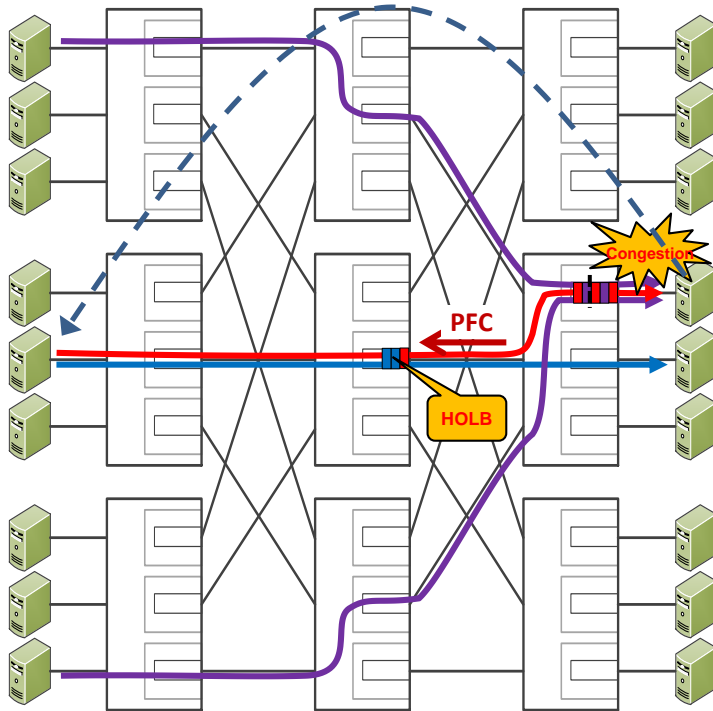
# Previous Presentation References

- Technical overview of CI
  - <http://www.ieee802.org/1/files/public/docs2018/cz-congdon-congestion-isolation-review-0418-v1.pdf>
- Possible changes to 802.1Q
  - <http://www.ieee802.org/1/files/public/docs2018/cz-congdon-ci-Q-changes-0618-v1.pdf>
- Objectives Discussion
  - <http://www.ieee802.org/1/files/public/docs2018/new-dcb-congdon-ci-objectives-0118-v02.pdf>
- Last draft submission (individual contribution)
  - <http://www.ieee802.org/1/files/public/docs2019/cz-congdon-draft-text-contribution-0319-v01.pdf>

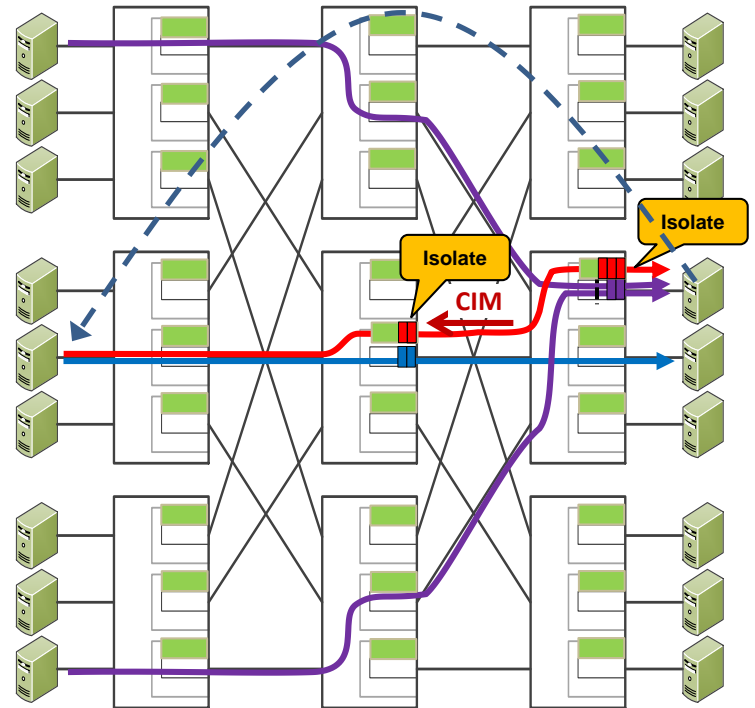
# One Slide Congestion Isolation Refresh



Today – Without Congestion Isolation



Congestion Isolation



# Fit in Bridge Forwarding process

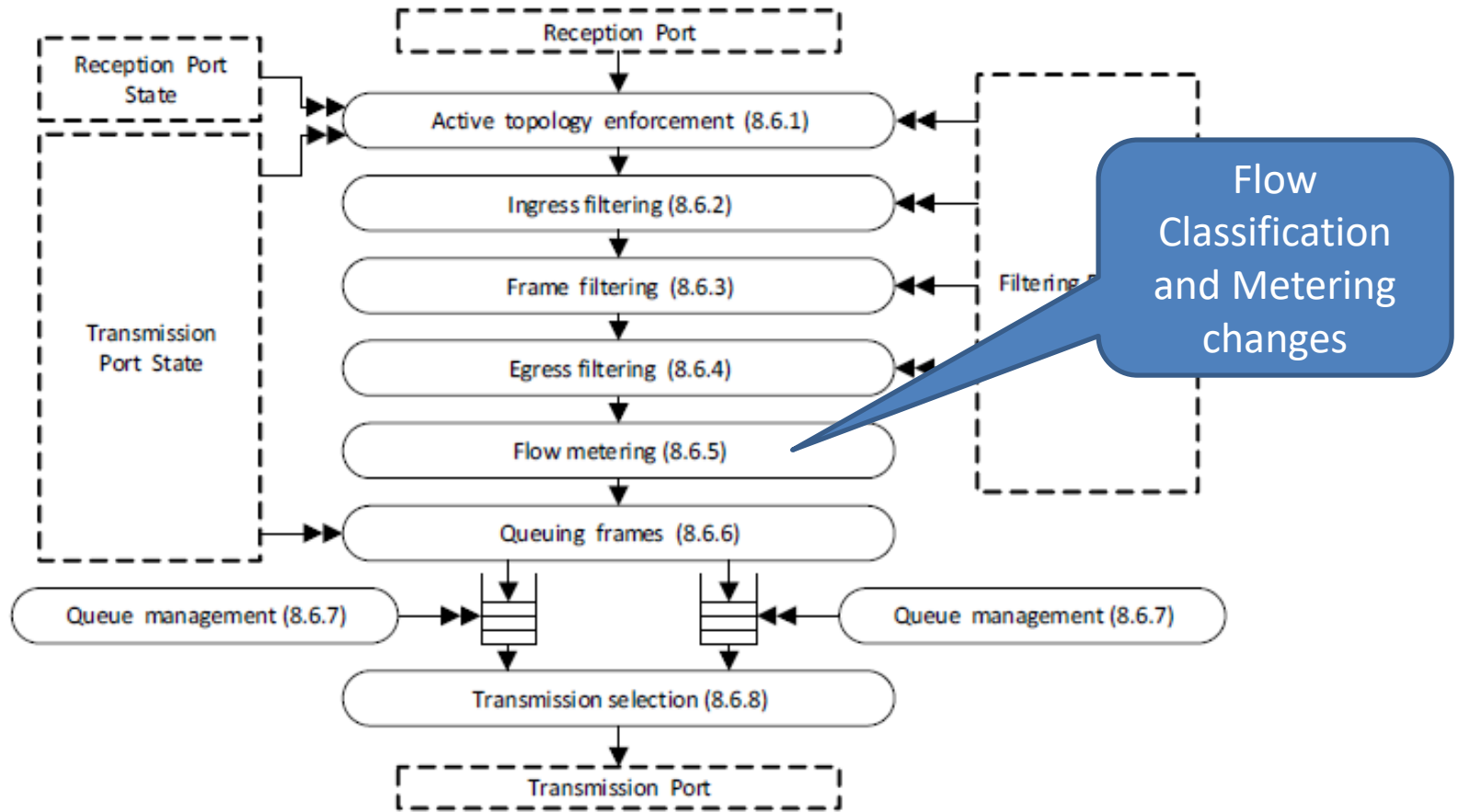
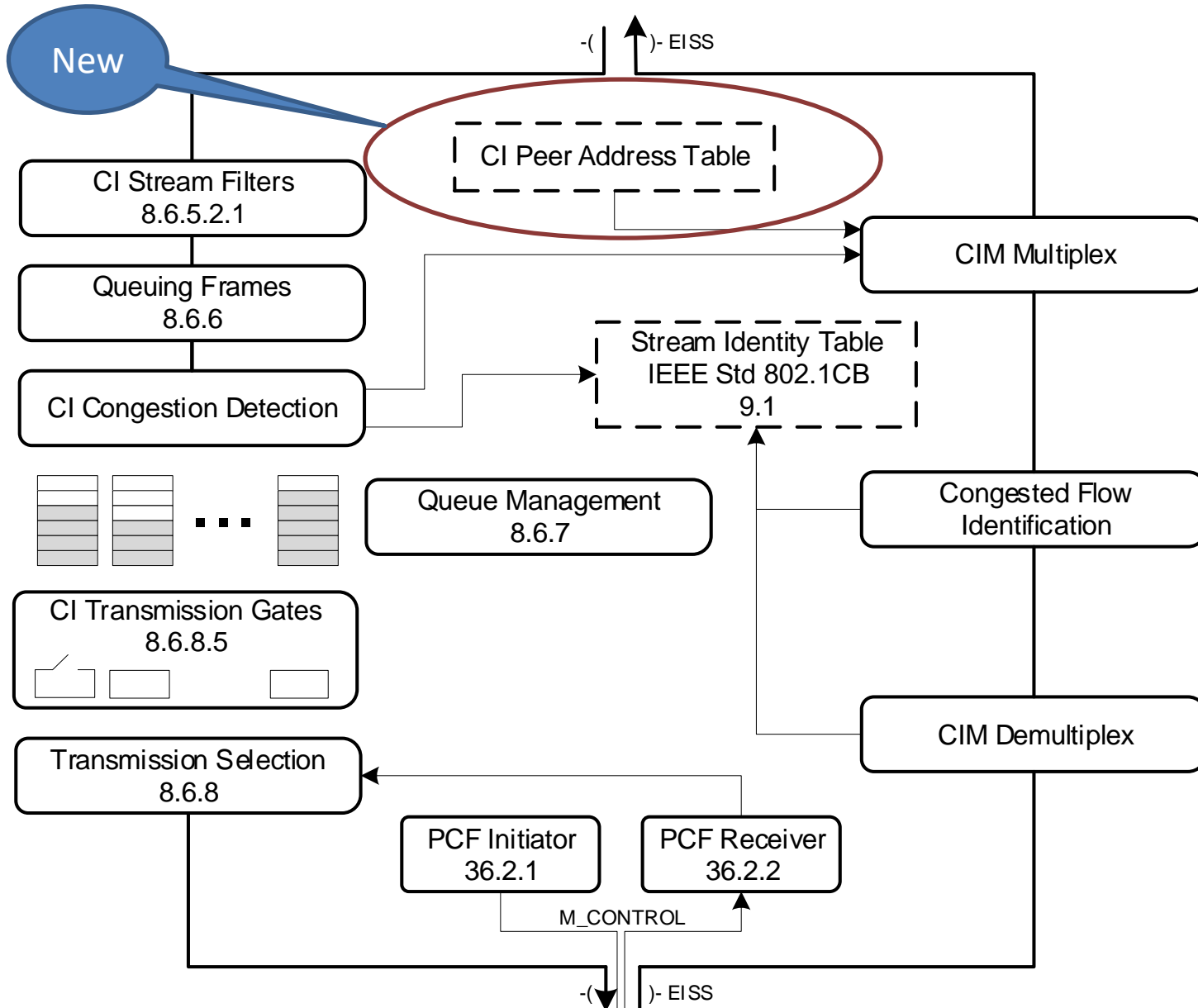


Figure 8-12—Forwarding process functions

# 802.1Qcz Reference Diagram



# Qcr restructuring of Clause 8

<<Editor's Note: Introduction to Clause 8 in this Document

Subsequent content is based on

<http://www.ieee802.org/1/files/public/docs2016/Qcr-specht-specification-mapping-proposal-0516-v01.pdf> and  
<http://www.ieee802.org/1/files/public/docs2016/Qcr-specht-editing-1116-v01.pdf>

I.e., (a) re-use procedures and tables of PSFP, (b) specify ATS functions that can be placed in reception Ports in clause 8.6.5, while (c) permitting implementation of the ATS scheduler computational part deeper in the forwarding process (i.e., in transmission ports).

In this draft of P802.1Qcr, contents of clauses 8.6.5.1 (PSFP) and 8.6.5.2 (ATS) were merged in sub-clauses 8.6.5.1 through 8.6.5.4 to simplify the descriptions/avoid redundancy. Additional slides on the restructuring are found here: <http://www.ieee802.org/1/files/public/docs2018/cr-specht-d04-0518-v03.pdf>.

- 8.6.5.1 through 8.6.5.3 define building blocks

- 8.6.5.4 now defines which of these building blocks assemble ATS and PSFP.

The initial text in 8.6.5 from 802.1Q-2018 has been moved into a separate sub-clause (8.6.5.5).>>



# Qcr Impact

- Qcr is restructuring Clause 8.6 significantly – Forwarding Process
- Functional elements are to be collected for specific applications:
  - 8.6.5.1 Stream Filters
  - 8.6.5.2 Stream Gates
  - 8.6.5.3 Stream Filter Specifications
    - 8.6.5.3.1 Maximum SDU Size Filters
    - 8.6.5.3.2 Flow Meters
    - 8.6.5.3.3 ATS Schedulers
  - 8.6.5.4 Stream Filter and Gate Applications
    - 8.6.5.4.1 Per-Stream Filtering and Policing (PSFP)
    - 8.6.5.4.2 Asynchronous Traffic Shaping (ATS) Filtering and Assignment Functions
    - 8.6.5.4.3 Congestion Isolation – (new clause)
  - 8.6.6 Queuing frames
    - 8.6.6.1 PSFP queuing
    - 8.6.6.2 ATS Queuing
    - 8.6.6.3 Congestion Isolation Queueing - (new clause)
  - 8.6.10 Stream gate control state machines
    - NOTE: May need some text in here indicating that stream gates are always open for CI
  - 8.6.12 Congestion Isolation state machines – (possible new clause)
    - NOTE: Need to decide if such machines are needed for maintaining order between queues

# Qcr Diagram Relevance

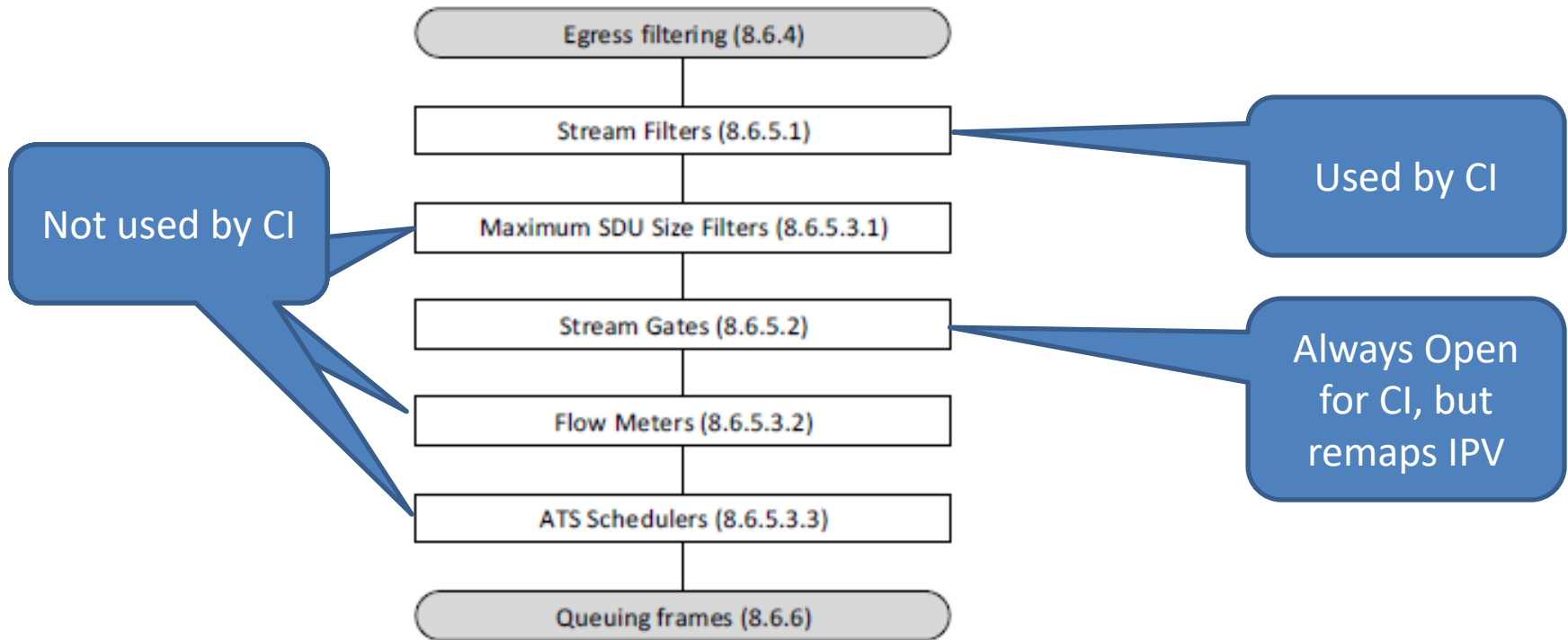


Figure 8-12—Flow classification and metering elements

# Draft must have for TG ballot

- Review current document for feel of TG on what must be present for initial TG ballot.

