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Abstract

This document describes an example Conformance Class based on “60802-Steindl-ExampleSelections-0119-v02.pdf” as a starting point for feature alignment.

The parameters and values given in this document are presenting the ongoing discussions. Currently there is no agreement which attributes, parameters and values are mandatory within the profile.

Terms used in this document

Supported	This feature is used in any class of device
Supported but optional	This feature is intended to be used in some class of device. For silicon vendors, these topics may be “supported”, too.
Not used	The used and thus the support of this feature is not intended.
Ω / TBD	Not provided until agreed release date for this version.
---	No quantities, because the assigned feature is not supported.
???	The responsible editor is not able to fill this cell without a discussion with the other contributors.

Log

V 0.x	under construction
V 00a	Data migrated, ready for review
V 1.6	Migration of the tables from document 60802-Steindl-et-al-ExampleSelection-1119-v16.docx to this Excel File

Attribute	Classification	Full-Blown Devices Example Selection “SI”	Constraint Devices Example Selection “SI”	Full-Blown Devices Example Selection “TT”	Constraint Devices Example Selection “TT”	Full-Blown Devices Example Selection “RA”	Constraint Devices Example Selection “RA”	Full-Blown Devices Example Selection “AB”	Constraint Devices Example Selection “AB”	Full-Blown Devices Example Selection “MI”	Constraint Devices Example Selection “MI”	Full-Blown Devices Example Selection “YO”	Constraint Devices Example Selection “YO”	Full-Blown Devices Example Selection “BR”	Constraint Devices Example Selection “BR”
MAU Types[1], Data rate															
10Mbps	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Supported but optional	Ω	Supported	Supported but optional	Supported but optional	Ω
100Mbps	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Supported	Ω
1Gbps	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported but optional	Supported but optional	Ω
2,5Gbps	Feature	Supported	Supported	Ω	Ω	Supported	Ω	Supported	Ω	Supported but optional	Ω	Supported	Not used	Supported but optional	Ω
5Gbps	Feature	Supported	Supported	Ω	Ω	Supported	Ω	Supported	Ω	Supported but optional	Ω	Supported	Not used	Supported but optional	Ω
10Gbps	Feature	Supported	Supported	Ω	Ω	Supported	Ω	Supported	Ω	Supported but optional	Ω	Supported	Not used	Supported but optional	Ω
Maximum frame size[2]	Quantity	1522	1522	1522	1522	1522	1522	1522	1522	2000	2000	1522	1522	1522	1522
802.3 79.3.4.1															
Link length[1]	Information	At least 100m	At least 100m	Depends on media	Ω	Depends on media	Ω	Depends on media	Ω	Depends on media	Ω	Depends on media	Depends on media	Depends on media	Ω
Preemption	Feature														
10Mbps[3]	Feature	Supported	Supported	Supported but optional	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional	Ω	Not used	Not used	Supported but optional	Ω
100Mbps	Feature	Supported	Supported	Supported but optional	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional	Ω	Not used	Not used	Supported but optional	Ω
1Gbps	Feature	Supported	Supported	Supported but optional	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional	Ω	Not used	Not used	Supported but optional	Ω
2,5Gbps	Feature	Supported but optional	Supported but optional	Supported but optional	Ω	Supported but optional	Ω	???	Ω	Supported but optional	Ω	Not used	Not used	Supported but optional	Ω
5Gbps	Feature	Not used	Not used	Supported but optional	Ω	Not used	Ω	???	Ω	Supported but optional	Ω	Not used	Not used	Supported but optional	Ω
10Gbps	Feature	Not used	Not used	Supported but optional	Ω	Not used	Ω	???	Ω	Supported but optional	Ω	Not used	Not used	Supported but optional	Ω

Notes

[1] Attributes like full duplex, IEEE 802.1AS support, IEEE 802.1AB support, auto polarity, auto negotiation, synchronization error budget, to be supported link length are selection criteria for the MAU Types.

[2] A frame size of 2000 allows combining frames using 1522 with additional features like C-Tag+S-Tag or C-Tag+R-Tag or Security headers or PRP headers/trailers.

[3] Need to convince IEEE 802.3 to allow preemption for 10 Mbps also.

Attribute	Classification	Full-Blown Devices Example Selection "SJ"	Constraint Devices Example Selection "SJ"	Full-Blown Devices Example Selection "TT"	Constraint Devices Example Selection "TT"	Full-Blown Devices Example Selection "RA"	Constraint Devices Example Selection "RA"	Full-Blown Devices Example Selection "AB"	Constraint Devices Example Selection "AB"	Full-Blown Devices Example Selection "MI"	Constraint Devices Example Selection "MI"	Full-Blown Devices Example Selection "YO"	Constraint Devices Example Selection "YO"	Full-Blown Devices Example Selection "BR"	Constraint Devices Example Selection "BR"
Queues 802.1Q 8.6.6 Preassigned PCPs	Quantity Quantity	Eight Example: PCP:7 for network mgmt., PCP:6 for High streams, PCP:5 for Low stream, PCP:4-2 for in domain, and PCP:1-0 for inter domain	Eight Example: PCP:7 for network mgmt., PCP:6 for High streams, PCP:5 for Low stream, PCP:4-2 for in domain, and PCP:1-0 for inter domain	Eight Example: PCP:7-2 for Isochronous streams, and PCP:1-0 for inter domain	Ω Ω	Four Example: PCP:7 for Isochronous/net work management (PTP, DLR, STP), PCP: 6 for cyclic/network management (LLDP, YANG, SNMP) PCP: 5:0 for application dependent	Ω Ω	Eight Example (intra TSN domain): PCP:7 for network control PCP:6 for High/Isochronou s streams, PCP:5 for Low/cyclic stream PCP:4 for Operator commands	Ω Ω	Eight Example: PCP:7 for Isochronous PCP:6 for cyclic PCP:5 for network control PCP:4 for config., diagnostics PCP:3-0 for other application	Ω Ω	Eight Example: PCP:7 network management, PCP:6 C2D, PCP:5 C2C / C2Comp, PCP:4 alarm / event, PCP:3-0 for application dependent	At least four Example: PCP:7 network management, PCP:6 C2D, PCP:5 C2C / C2Comp, PCP:4 alarm / event, PCP:3-0 for application dependent	Ω Ω	Ω Ω
VLAN Identification	Quantity	Up to 8 VIDs Four for streams, rest for non- stream	Up to 8 VIDs Four for streams, rest for non- stream	Up to 8 VIDs	Ω	Up to 8 VIDs	Ω	Up to 8 VIDs Seven for streams, rest for non-stream	Ω	Up to 8 VIDs	Ω	Up to 8 VIDs	Up to 8 VIDs	At least 16 VIDs	Ω
VLANs used for streams(in FDB configuration)"Static trees"															
Learning disable	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Supported	Ω
Individual VLAN learning (IVL)	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Supported but optional Drop	Ω
Default forwarding rule	Feature	Drop	Drop	Drop	Ω	Drop	Ω	Drop	Ω	Drop	Ω	Drop	Drop	Supported but optional Drop	Ω
VLANs used for non-stream(in FDB configuration)															
Learning enabled	Feature	Supported	Supported	Ω	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Supported	Ω
Shared VLAN learning (SVL)	Feature	Supported	Supported	Ω	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Supported, but optional	Ω
Default forwarding rule	Feature	Flooding	Flooding	Ω	Ω	Flooding	Ω	Flooding	Ω	Flooding	Ω	Flooding	Flooding	Flooding	Ω
FDB size 802.1Q 8.8	Quantity														
Streams	Quantity	8192[1]	8192[1]	512	Ω	4096	Ω	8192	Ω	4096	Ω	16384[2]	1024[16]	8192	Ω
static MC entries used for streams															
Non-stream	Quantity	2048	2048	128	Ω	1024	Ω	???	Ω	2048	Ω	16384[3]	1024[16]	Ω	Ω
static/dynamic entries for remaining VLAN(s)															
Spanning tree 802.1Q 13															
For stream VLANs															
RSTP	Feature	Not used	Not used	Ω	Ω	Not used	Ω	Not used	Ω	Not used	Ω	Supported but optional	Supported but optional	Not used	Ω
MSTP	Feature	Not used	Not used	Ω	Ω	Not used	Ω	Not used	Ω	Not used	Ω	Supported but optional	Supported but optional	Not used	Ω
For non-stream VLANs															
RSTP	Feature	Supported but optional	Supported but optional	Ω	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional	Ω	Supported but optional	Supported but optional	Supported	Ω
MSTP	Feature	Supported but optional	Supported but optional	Ω	Ω	Supported but optional	Ω	Supported but optional	Ω	Supported but optional	Ω	Supported but optional	Supported but optional	Supported but optional	Ω
Transmission selection control 802.1Q 8.6.8															
Strict priority	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Supported	Ω
Credit based shaper	Feature	Not used	Not used	Supported	Ω	Supported, but Optional	Ω	Supported	Ω	Not used	Ω	Supported, Supported, but Optional	Supported, Supported, but Optional	Supported	Ω
Scheduled traffic 802.1Q 8.6.9, 8.6.8.4															
Time aware shaper				Feature											
10Mbps	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Supported but optional	Ω	Supported but optional	Supported but optional	Supported	Ω
100Mbps	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Supported	Ω
1Gbps	Feature	Supported but optional	Supported but optional	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported but optional	Supported	Ω
2,5Gbps	Feature	Not used	Not used	Ω	Ω	Supported	Ω	Supported	Ω	Supported but optional	Ω	Supported but optional	Not used	Supported	Ω
5Gbps	Feature	Not used	Not used	Ω	Ω	Supported	Ω	Supported	Ω	Supported but optional	Ω	Supported but optional	Not used	Supported	Ω
10Gbps	Feature	Not used	Not used	Ω	Ω	Supported	Ω	Supported	Ω	Supported but optional	Ω	Supported but optional	Not used	Supported	Ω

Attribute	Classification	Full-Blown Devices Example Selection "SJ"	Constraint Devices Example Selection "SJ"	Full-Blown Devices Example Selection "TT"	Constraint Devices Example Selection "TT"	Full-Blown Devices Example Selection "RA"	Constraint Devices Example Selection "RA"	Full-Blown Devices Example Selection "AB"	Constraint Devices Example Selection "AB"	Full-Blown Devices Example Selection "MI"	Constraint Devices Example Selection "MI"	Full-Blown Devices Example Selection "YO"	Constraint Devices Example Selection "YO"	Full-Blown Devices Example Selection "BR"	Constraint Devices Example Selection "BR"
Cyclic queuing and forwarding	Feature	Not used	Not used	Not used	Ω	Not used	Ω	Supported, but Optional	Ω	Not used	Ω	Not used	Not used	Supported, but Optional	Ω
Gate Control List entries 802.1Q 8.6.8.4	Quantity	At least 3	At least 3	At least 256	Ω	At least 3	Ω	At least 256	Ω	At least 8	Ω	At least 3	At least 3	At least 256	Ω
Tick granularity 802.1Q 8.6.8.4	Quantity	=< 10ns	=< 10ns	100ns	Ω	10ns	Ω	10ns	Ω	16ns	Ω	=< 100ns	=< 100ns	10ns	Ω
Admin Cycle Time range 802.1Q 8.6.8.4	Quantity	250 μs to 1 ms	250 μs to 1 ms	62,5 μs to 10 ms	Ω	250 μs to 1 ms	Ω	250 μs to 20 ms	Ω	250 μs to 1 s	Ω	500 μs to 10 ms	=< 10ms	100 μs to 20 ms	Ω
100Mbps	Quantity	31,25 μs to 1 ms	31,25 μs to 1 ms	62,5 μs to 10 ms	Ω	31,25 μs to 1 ms	Ω	20 μs to 20 ms	Ω	31,25 μs to 1 s	Ω	500 μs to 1 ms	=< 10ms	20 μs to 10 ms	Ω
Timing points for scheduled traffic 802.1Q 12.29.2[4]	Quantity	=< 10ns	=< 10ns	10ns	Ω	10ns	Ω	10ns	Ω	16ns	Ω	=< 100ns	=< 100ns	10ns	Ω
Maximum gap for transmission of consecutive frames[5]	Quantity	IPG	IPG	IPG	Ω	IPG	Ω	IPG	Ω	96 bit times	Ω	IPG	IPG	IPG	Ω
Ingress rate limiter / Flow classification and metering802.1Q 8.6.5 (MEF 10.3)															
Unicast	Feature	Supported	Supported	Not used	Ω	Supported but optional	Ω	Supported	Ω	Supported	Ω	Supported but optional	Supported but optional	Supported but optional	Ω
Multicast / Broadcast	Feature	Supported	Supported	Not used	Ω	Supported but optional	Ω	Supported	Ω	Supported	Ω	Supported but optional	Supported but optional	Supported but optional	Ω
Ingress filtering and policing (Qci) 802.1Q 8.6.5.1															
Number of streams	Quantity	—	—	Ω	Ω	4096	Ω	8192	Ω	256	Ω	8192	4096	8192	Ω
Stream Gates 802.1Q 8.6.5.1.2	Feature	Not used	Not used	Supported but optional	Ω	Supported but optional	Ω	Supported	Ω	Not used	Ω	Not used	Not used	Supported	Ω
Number of stream gates	Quantity	—	—	Ω	Ω	8	Ω	8	Ω	—	Ω	—	---	Ω	Ω
Flow Meters 802.1Q 8.6.5.1.3	Feature	Not used	Not used	Supported but optional	Ω	Supported but optional	Ω	Supported	Ω	Supported	Ω	Supported but optional	Supported but optional	Supported	Ω
Number of flow meters	Quantity	2 × number of ports[6]	2 × number of ports[6]	Ω	Ω	8	Ω	8	Ω	8	Ω	8	4	Ω	Ω
Stream Filter 802.1Q 8.6.5.1.1	Feature	Not used	Not used	Supported but optional	Ω	Supported but optional	Ω	Supported	Ω	Supported	Ω	Supported but optional	Supported but optional	Ω	Ω
Ingress and egress frame modification															
Priority regeneration (PCP) 802.1Q 6.9.4	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Supported	Ω
VLAN stripping and adding 802.1Q 6.9 and 8.8.2	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Supported	Ω
Preemption 802.1Q 6.7.2															
First fragment size	Quantity	64	64	64	Ω	64	Ω	64	Ω	64	Ω	—	---	64	64
Number of Hold & Release events 802.1Q 12.30.1	Quantity	2	2	256	Ω	At least 1	Ω	2[7]	Ω	7	Ω	—	---	Ω	Ω
10Mbps	Feature	Supported	Supported	Supported	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional	Ω	Not used	Not used	Supported but optional	Ω
100Mbps	Feature	Supported	Supported	Supported	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional	Ω	Not used	Not used	Supported but optional	Ω
1Gbps	Feature	Supported	Supported	Supported	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional	Ω	Not used	Not used	Supported but optional	Ω
2,5Gbps	Feature	Supported but optional	Supported but optional	Ω	Ω	Supported but optional	Ω	???	Ω	Supported but optional	Ω	Not used	Not used	Supported but optional	Ω
5Gbps	Feature	Not used	Not used	Ω	Ω	Not used	Ω	???	Ω	Supported but optional	Ω	Not used	Not used	Supported but optional	Ω
10Gbps	Feature	Not used	Not used	Ω	Ω	Not used	Ω	???	Ω	Supported but optional	Ω	Not used	Not used	Supported but optional	Ω
Synchronized network access															
Start of cycle trigger[8]	Feature	Supported	Supported	Supported	Ω	Supported but optional	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Supported	Ω
Per stream trigger 802.1Qcc 46.6.2.5.3.5	Feature	Not used	Not used	Supported	Ω	Not used	Ω	Supported	Ω	Supported	Ω	Not used	Not used	Supported	Ω
Maximum gap for transmission of consecutive frames[9]	Quantity	IPG	IPG	IPG	Ω	IPG	Ω	IPG	Ω	96 bit times	Ω	IPG	IPG	IPG	Ω
Bridge / Forwarding resources[10]		Specify attributes for the resource management. Ensure buffering of stream and non-stream traffic during stream transmission													
Real-Time traffic[11]															
Stream High in-class interference															

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>= 1Gbps	Quantity	Up to 200µs for an egress port	Up to 200µs for an egress port	Ω	Ω	Up to 500µs for an egress port	Ω	Up to 2 ms for an egress port[17]	Ω	Up to 300µs for an egress port	Ω	Up to 500µs for an egress port	Up to 200µs for an egress port	Ω	Ω
<= 100Mbps	Quantity	Up to 500µs for an egress port	Up to 500µs for an egress port	Ω	Ω	Up to 500µs for an egress port	Ω	Up to 2 ms for an egress port	Ω	Up to 300µs for an egress port	Ω	Up to 500µs for an egress port	Up to 200µs for an egress port	Ω	Ω
Stream Low intra- and in-class interference															
>= 1Gbps	Quantity	Up to 200µs for an egress port	Up to 200µs for an egress port	Ω	Ω	Up to 500µs for an egress port	Ω	Up to 2 ms for an egress port	Ω	Up to 300µs for an egress port	Ω	Up to 500µs for an egress port	Up to 200µs for an egress port	Ω	Ω
<= 100Mbps	Quantity	Up to 500µs for an egress port	Up to 500µs for an egress port	Ω	Ω	Up to 500µs for an egress port	Ω	Up to 2 ms for an egress port	Ω	Up to 300µs for an egress port	Ω	Up to 500µs for an egress port	Up to 200µs for an egress port	Ω	Ω
Non-real-Time traffic[12][13]															
>= 1Gbps[14]	Quantity	Up to 200µs for an egress port	Up to 200µs for an egress port	Minimum of 16k per port	Ω	Up to 500µs for an egress port	Ω	Up to 2 ms for an egress port	Ω	Up to 300µs for an egress port	Ω	Up to 500µs for an egress port	Up to 200µs for an egress port	Ω	Ω
<= 100Mbps[15]	Quantity	Up to 500µs for an egress port	Up to 500µs for an egress port	Minimum of 16k per port	Ω	Up to 500µs for an egress port	Ω	Up to 2 ms for an egress port	Ω	Up to 300µs for an egress port	Ω	Up to 500µs for an egress port	Up to 200µs for an egress port	Ω	Ω

[1] A minimum 2048 per VLAN

[2] Only in sum 16384 entries – useable for streams and default VLAN(s)

[3] Only in sum 16384 entries – useable for streams and default VLAN(s)

[4] Minimum and maximum for the delay before the first frame is transmitted after gate open

[5] Getting the value for calculating window sizes

[6] If useable for ingress rate limiting fitting to the domain boundary requirements

[7] maxframesize/minframesize of a TSN domain. Is this value seen for the whole queue or just one frame? Given that there are holdAdvance and releaseAdvance events, then $2 \times \text{maxframesize}/\text{minframesize}$.

[8] Specified as a special case of the per stream trigger by using "time aware offset = 0" for all streams

[9] Getting the value for network calculus and calculating window sizes

[10] Model for resource calculation needed due to implementation dependency. What needs to be achieved? What is the goal?

[11] Both stream classes share the time limit; if only stream high is used, then 200µs are available for high. If only low is used, then 200µs are available for low. If both are used, then they need to share the 200µs.

[12] Stream and non-stream forwarding resources needs to be guaranteed.

[13] Having a time triggered network usage model requires to buffer non-stream traffic during the stream time period to avoid the deletion of the packet being synchronized with the application period.

[14] Length of the period of stream transmission at egress ports need to be protected against congestion lost. „Minimum of 25 Kbytes per port“ is an equivalent of 200µs transmission period for 1Gbps.

[15] Length of the period of stream transmission at egress ports need to be protected against congestion lost. „Minimum of 6,25 Kbytes per port“ is an equivalent of 500µs transmission period for 100Mbps.

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Configuration-Centralized															
Class based scheduling	Feature	Supported	Supported	Not used	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Not used	Ω
Stream based scheduling	Feature	Not used	Not used	Supported	Ω	Not used	Ω	Supported	Ω	Not used	Ω	Not used	Not used	Supported	Ω
path computation	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	???	Ω	Supported	Supported	Supported	Ω
network calculus	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	???	Ω	Supported	Supported	Supported	Ω
topology discovery	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	???	Ω	Supported	Supported	Supported	Ω
device network feature discovery	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	???	Ω	Supported	Supported	Supported	Ω
management protocol	Feature														
SNMP (if YANG Models are still missing)	Feature	Supported	Ω	Supported	Ω	Not used	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Not used	Ω
MIBs	Quantity (List of MIBs)	Ω	Ω	Ω	Ω	—	Ω	???	Ω	???	Ω	???	???	—	Ω
NETCONF	Feature	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported but optional	Supported	Ω
SSH	Feature	Supported but optional	Ω	Supported	Ω	Supported but optional	Ω	Supported but optional	Ω	Not used	Ω	Supported but optional	Supported but optional	Supported but optional	Ω
TLS	Feature	Supported but optional	Ω	Supported but optional	Ω	Supported but optional	Ω	Supported	Ω	Supported	Ω	Supported	Supported but optional	Supported	Ω
YANGs	Quantity (List of MIBs)	Ω	Ω	Ω	Ω	Supported	Ω	???	Ω	???	Ω	???	???	Ω	Ω
CNC Election (making sure there is only one active CNC per domain)	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	???	Ω	Supported	Supported	Supported	Ω
Dynamic configuration	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	???	Ω	Supported	Supported	Supported	Ω
Standardized stream reservation request from end-stations	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	???	Ω	Supported	Supported	Supported	Ω
Number of supported streams	Quantity	8192	8192	512	Ω	4096	Ω	8192	Ω	4096	Ω	8192	2048	8192	Ω
Number of devices (bridges and end-stations) per TSN domain	Quantity	1000	1000	200	Ω	1000	Ω	3000	Ω	1024	Ω	2048	512	5000	Ω

Attribute	Classification	Full-Blown Devices Example Selection “SI”	Constraint Devices Example Selection “SI”	Full-Blown Devices Example Selection “TT”	Constraint Devices Example Selection “TT”	Full-Blown Devices Example Selection “RA”	Constraint Devices Example Selection “RA”	Full-Blown Devices Example Selection “AB”	Constraint Devices Example Selection “AB”	Full-Blown Devices Example Selection “MI”	Constraint Devices Example Selection “MI”	Full-Blown Devices Example Selection “YO”	Constraint Devices Example Selection “YO”	Full-Blown Devices Example Selection “BR”	Constraint Devices Example Selection “BR”
Configuration-Distributed (M2M communication) LRP/RAP															
path computation	Feature	Supported but optional	Ω	Not used	Ω	Supported	Ω	Supported	Ω	???	Ω	Supported	Supported	Supported but optional	Ω
Standardized stream reservation request from end-stations	Feature	Supported but optional	Ω	Not used	Ω	Supported	Ω	Supported	Ω	???	Ω	Supported	Supported	Supported but optional	Ω
Number of supported streams	Quantity	256	Ω	—	Ω	256	Ω	???	Ω	Ω	Ω	256	256	—	Ω
Number of devices (bridges and end-stations) per TSN domain	Quantity	Ω	Ω	—	Ω	Ω	Ω	???	Ω	Ω	Ω	128	128	—	Ω

Attribute	Classification	Full-Blown Devices Example Selection "SJ"	Constraint Devices Example Selection "SJ"	Full-Blown Devices Example Selection "TT"	Constraint Devices Example Selection "TT"	Full-Blown Devices Example Selection "RA"	Constraint Devices Example Selection "RA"	Full-Blown Devices Example Selection "AB"	Constraint Devices Example Selection "AB"	Full-Blown Devices Example Selection "MI"	Constraint Devices Example Selection "MI"	Full-Blown Devices Example Selection "YO"	Constraint Devices Example Selection "YO"	Full-Blown Devices Example Selection "BR"	Constraint Devices Example Selection "BR"
Cut through forwarding	Forwarding latency optimization														
Delayed Cut-through[1]	Feature	Supported	Supported	Not used	Ω	Supported	Ω	Supported but optional	Ω	Supported	Ω	Not used	Not used	Supported but optional	Ω
Direct Cut-through	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported but optional	Ω	Not used	Ω	Not used	Not used	Supported	Ω
Number of queues supporting it	Quantity	8	8	1	Ω	With preemption: (Isochronous queue only)	Ω	2: isochronous and cyclic 1 (Isochronous queue only)	Ω	5	Ω	8	---	1	Ω
								Without preemption: up to 8							

[1] Not limited to port being free on receive. Packet is forward to the DST port as soon as the port is free. No need to wait for the complete packet reception

Attribute	Classification	Full-Blown Devices Example Selection “SI”	Constraint Devices Example Selection “SI”	Full-Blown Devices Example Selection “TT”	Constraint Devices Example Selection “TT”	Full-Blown Devices Example Selection “RA”	Constraint Devices Example Selection “RA”	Full-Blown Devices Example Selection “AB”	Constraint Devices Example Selection “AB”	Full-Blown Devices Example Selection “MI”	Constraint Devices Example Selection “MI”	Full-Blown Devices Example Selection “YO”	Constraint Devices Example Selection “YO”	Full-Blown Devices Example Selection “BR”	Constraint Devices Example Selection “BR”
TSN Domain TLV (IEEE802.1Q TLV or IEC/IEEE60802 TLV)	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Supported	Ω
802.3 extension	Feature														
MAC/PHY Configuration/Status	Feature	Supported	Supported	Ω	Ω	Not used	Ω	Supported	Ω	???	Ω	Supported but optional Not used	Supported but optional Not used	Ω	Ω
Power Via Medium Dependent Interface (MDI)	Feature	Supported but optional	Supported but optional	Ω	Ω	Not used	Ω	Supported but optional	Ω	???	Ω	Supported but optional Not used	Supported but optional Not used	Ω	Ω
Maximum Frame Size	Feature	Supported	Supported	Ω	Ω	Not used	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional Not used	Supported but optional Not used	Ω	Ω
Additional Ethernet Capabilities (Preemption)	Feature	Supported	Supported	Supported	Ω	Supported but optional	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional Not used	Supported but optional Not used	Supported	Ω
802.1 extension	Feature														
Port VLAN ID	Feature	Supported but optional	Supported but optional	Ω	Ω	—	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional	Supported but optional	Ω	Ω
Port And Protocol VLAN ID	Feature	Supported but optional	Supported but optional	Ω	Ω	—	Ω	Supported	Ω	Supported	Ω	Supported but optional	Supported but optional	Ω	Ω
VLAN Name	Feature	Supported but optional	Supported but optional	Ω	Ω	—	Ω	Supported	Ω	Supported	Ω	Supported but optional	Supported but optional	Ω	Ω
Protocol Identity	Feature	Supported but optional	Supported but optional	Ω	Ω	—	Ω	Supported	Ω	Supported	Ω	Supported but optional	Supported but optional	Ω	Ω
VID Usage Digest	Feature	Supported but optional	Supported but optional	Ω	Ω	—	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional	Supported but optional	Ω	Ω
Management VID	Feature	Supported but optional	Supported but optional	Ω	Ω	—	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional	Supported but optional	Ω	Ω
802.1AB “Transmit on data change” (9.2.5.20 defined variable txNow := TRUE)	Feature	Supported	Supported	Supported	Ω	Supported but optional	Ω	Supported[1]	Ω	Supported	Ω	Supported	Supported	Ω	Ω
802.1AB “Topology Discovery”	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Supported	Ω

[1] we should also write something about txCredit>0. Anyway, why this sudden concentration on txNow? If LLDP is supported, the standard says:
 “An LLDP agent shall conform to the specifications of each of the state machines indicated in Table 9-1 for the operating mode that it supports.”
 (just before chapter 9.1.1. from 802.1AB-2016)

Attribute	Classification	Full-Blown Devices Example Selection “SI”	Constraint Devices Example Selection “SI”	Full-Blown Devices Example Selection “TT”	Constraint Devices Example Selection “TT”	Full-Blown Devices Example Selection “RA”	Constraint Devices Example Selection “RA”	Full-Blown Devices Example Selection “AB”	Constraint Devices Example Selection “AB”	Full-Blown Devices Example Selection “MI”	Constraint Devices Example Selection “MI”	Full-Blown Devices Example Selection “YO”	Constraint Devices Example Selection “YO”	Full-Blown Devices Example Selection “BR”	Constraint Devices Example Selection “BR”
Grandmaster PTP Instance	Feature	Supported but optional	Supported but optional	Supported but optional	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional	Ω	Supported but optional	Supported but optional	Supported	Ω
PTP End Instance	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Supported	Ω
Sync send interval															
Working Clock send interval	Quantity	31,25 ms	31,25 ms	31,25 ms	Ω	1 s	Ω	Ω	Ω	31,25 ms	Ω	1 s	1 s	Ω	Ω
Global Time send interval	Quantity	125 ms	125 ms	125 ms	Ω	1 s	Ω	Ω	Ω	125 ms	Ω	1 s	1 s	Ω	Ω
gPTP Domains															
Working Clock	Quantity	1	1	1	Ω	1	Ω	1	Ω	1	Ω	1	1	1	Ω
Global Time	Quantity	1	1	1	Ω	1	Ω	1	Ω	1	Ω	1	1	1	Ω
Seamless redundancy – Hot Standby	Feature	Supported but optional	Supported but optional	Supported but optional	Ω	Not used	Ω	Supported	Ω	Supported but optional	Ω	Supported but optional	Supported but optional	Supported but optional	Ω
Working Clock	Quantity	1	1	1	Ω	—	Ω	1	Ω	1	Ω	1	1	1	Ω
Global Time	Quantity	1	1	1	Ω	—	Ω	1	Ω	1	Ω	1	1	1	Ω
BMCA Redundancy – Cold Standby	Feature	Not used	Not used	Supported	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional	Ω	Supported	Supported	Supported	Ω
Externally Managed Sync Trees (YANG/MIB)	Feature	Supported	Supported	Supported but optional	Ω	Not used	Ω	Supported but optional	Ω	Supported but optional	Ω	Supported but optional	Supported but optional	Supported	Ω
802.1AS “Announce”															
Working Clock	Feature	Ω	Ω	Ω	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Ω	Ω
Global Time	Feature	Ω	Ω	Ω	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Ω	Ω
802.1AS “Signal”	Feature	Not used	Not used	Supported but optional	Ω	Supported	Ω	Supported	Ω	Supported but optional	Ω	Supported	Supported	Supported	Ω
gPTP capable	Feature	Ω	Ω	Ω	Ω	Supported	Ω	Supported	Ω	???	Ω	Supported	Supported	Ω	Ω

Attribute	Classification	Full-Blown Devices Example Selection "SJ"	Constraint Devices Example Selection "SJ"	Full-Blown Devices Example Selection "TT"	Constraint Devices Example Selection "TT"	Full-Blown Devices Example Selection "RA"	Constraint Devices Example Selection "RA"	Full-Blown Devices Example Selection "AB"	Constraint Devices Example Selection "AB"	Full-Blown Devices Example Selection "MI"	Constraint Devices Example Selection "MI"	Full-Blown Devices Example Selection "YO"	Constraint Devices Example Selection "YO"	Full-Blown Devices Example Selection "BR"	Constraint Devices Example Selection "BR"
Stream identification		Selection out of a list within 802.1CB													
Null Stream (DMAC + TC.I.VID based)	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Supported	Ω
802.1CB 6.4															
IP stream	Feature	Not used	Not used	Not used	Ω	Supported	Ω	Supported but optional	Ω	Supported but optional	Ω	Supported	Supported	Supported but optional	Ω
802.1CB 6.7															
1CB (Frame replication and elimination for reliability)		Feature													
1CB TAG supported	Feature	Not used	Not used	Supported	Ω	Supported but optional	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional	Supported but optional	Supported	Ω
HSR TAG supported	Feature	Not used	Not used	Supported but optional	Ω	Not used	Ω	Supported but optional	Ω	Supported but optional	Ω	Not used	Not used	Not used	Ω
PRP Trailer supported	Feature	Not used	Not used	Supported but optional	Ω	Supported but optional	Ω	Supported but optional	Ω	Supported but optional	Ω	Not used	Not used	Not used	Ω
FRER in end-stations only	Feature														
1CB TAG supported	Feature	Not used	Not used	Supported	Ω	Supported but optional	Ω	Supported but optional	Ω	???	Ω	Supported	Supported	Supported	Ω
HSR TAG supported	Feature	Not used	Not used	Supported but optional	Ω	Not used	Ω	Supported but optional	Ω	???	Ω	Not used	Not used	Not used	Ω
PRP Trailer supported	Feature	Not used	Not used	Supported but optional	Ω	Supported but optional	Ω	Supported but optional	Ω	???	Ω	Not used	Not used	Not used	Ω
Vendor specific trailer supported	Feature	Supported	Supported	Not used	Ω	Not used	Ω	Not used	Ω	???	Ω	Not used	Not used	Not used	Ω
Number of streams	Feature	4096[1]	4096[1]	128	Ω	4096	Ω	8192	Ω	???	Ω	8192	2048	8000	Ω
FRER in bridges	Feature														
1CB TAG supported	Feature	Supported but optional[2]	Supported but optional[2]	Supported	Ω	Supported but optional	Ω	Supported but optional	Ω	Supported	Ω	Supported but optional	Supported but optional	Supported	Ω
HSR TAG supported	Feature	Supported but optional[3]	Supported but optional[3]	Supported but optional	Ω	Not used	Ω	Supported but optional	Ω	Supported but optional	Ω	Not used	Not used	Not used	Ω
PRP Trailer supported	Feature	Supported but optional[4]	Supported but optional[4]	Supported but optional	Ω	Supported but optional	Ω	Supported but optional	Ω	Supported but optional	Ω	Not used	Not used	Not used	Ω
Vendor specific trailer supported	Feature	Not used	Not used	Ω	Ω	Not used	Ω	Not used	Ω	Not used	Ω	Not used	Not used	Not used	Ω
Number of streams	Feature	—	—	128	Ω	4096	Ω	8192	Ω	Ω	Ω	8000	2048	8000	Ω
Stream translation		Selection out of a list within 802.1CB													
Active DMAC and VLAN identification		802.1CB 6.6													
Ingress Port	Feature	Supported	Supported	Supported	Ω	Supported	Ω	Supported	Ω	Ω	Ω	Supported	Supported	Ω	Ω
Number of streams	Quantity	64 streams	64 streams	—	Ω	64 streams	Ω	64 streams	Ω	Ω	Ω	64	64	—	Ω
Egress Port	Feature	Not used	Not used	Ω	Ω	Not used	Ω	Supported	Ω	Ω	Ω	Not used	Not used	Ω	Ω
Number of streams	Quantity	—	—	—	Ω	—	Ω	8192	Ω	Ω	Ω	—	---	—	Ω

[1] 8192 stream supported in a TSN Domain may be used for seamless redundancy which leads to 4096 redundant handled streams

[2] Only for network infrastructure components

[3] Only for network infrastructure components

[4] Only for network infrastructure components

Attribute	Classification	Full-Blown Devices Example Selection "SI"	Constraint Devices Example Selection "SI"	Full-Blown Devices Example Selection "TT"	Constraint Devices Example Selection "TT"	Full-Blown Devices Example Selection "RA"	Constraint Devices Example Selection "RA"	Full-Blown Devices Example Selection "AB"	Constraint Devices Example Selection "AB"	Full-Blown Devices Example Selection "MI"	Constraint Devices Example Selection "MI"	Full-Blown Devices Example Selection "YO"	Constraint Devices Example Selection "YO"	Full-Blown Devices Example Selection "BR"	Constraint Devices Example Selection "BR"
IEC 62439-2 "MRP"															
MRP manager	Feature	Supported but optional	Supported but optional	Not used	Ω	Not used	Ω	Ω	Ω	Not used	Ω	Not used	Not used	Not used	Ω
MRP client	Feature	Supported but optional	Supported but optional	Not used	Ω	Not used	Ω	Ω	Ω	Not used	Ω	Not used	Not used	Not used	Ω
IEC 62439-3 "PRP" and "HSR"															
PRP	Feature	Ω	Ω	Not used	Ω	Supported but optional	Ω	Ω	Ω	Not used	Ω	Not used	Not used	Not used	Ω
HSR	Feature	Ω	Ω	Not used	Ω	Not used	Ω	Ω	Ω	Not used	Ω	Not used	Not used	Not used	Ω
IEC 61158-x-2 IEC 61784-2 "DLR"															
DLR	Feature	Not used	Not used	Ω	Ω	Supported	Ω	Not used	Ω	Not used	Ω	Not used	Not used	Not used	Ω

Attribute	Classification	Full-Blown Devices Example Selection "SJ"	Constraint Devices Example Selection "SJ"	Full-Blown Devices Example Selection "TT"	Constraint Devices Example Selection "TT"	Full-Blown Devices Example Selection "RA"	Constraint Devices Example Selection "RA"	Full-Blown Devices Example Selection "AB"	Constraint Devices Example Selection "AB"	Full-Blown Devices Example Selection "MI"	Constraint Devices Example Selection "MI"	Full-Blown Devices Example Selection "YO"	Constraint Devices Example Selection "YO"	Full-Blown Devices Example Selection "BR"	Constraint Devices Example Selection "BR"
Queues 802.1Q 8.6.6 Preassigned PCPs	Quantity Quantity	Eight Example: PCP:7 for network mgmt., PCP:6 for High streams, PCP:5 for Low stream, PCP:4-2 for in domain, and PCP:1-0 for inter domain	Eight Example: PCP:7 for network mgmt., PCP:6 for High streams, PCP:5 for Low stream, PCP:4-2 for in domain, and PCP:1-0 for inter domain	Ω Ω	Ω Ω	Ω Ω	Ω Ω	Eight Example (intra TSN domain): PCP:7 for network control PCP:6 for High/Isochronou s streams, PCP:5 for Low/cyclic stream PCP:4 for Operator commands (PC NICs)	Ω Ω	Five Example: PCP:7 for Isochronous PCP:6 for cyclic PCP:2 for network control PCP:1 for config., diagnostics PCP:0 for other application	Ω Ω	Eight Example: PCP:7 network management, PCP:6 C2D, PCP:5 C2C / C2Comp, PCP:4 alarm / event, PCP:3-0 for application dependent	At least four Example: PCP:7 network management, PCP:6 C2D, PCP:5 C2C / C2Comp, PCP:4 alarm / event, PCP:3-0 for application dependent	Ω Ω	Ω Ω
VLAN Identification	Quantity	Up to 5 VIDs Four for streams, one for non- stream	Up to 5 VIDs Four for streams, one for non- stream	Ω	Ω	Ω	Ω	At least 4 VIDs	Ω	Up to 8 VIDs	Ω	At least 8 VIDs	At least 8 VIDs	Ω	Ω
VLANs used for streams	Quantity	2 + 2	2 + 2	Ω	Ω	Ω	Ω	At least 3	Ω	Ω	Ω	4	At least 4	Ω	Ω
VLANs used for non-stream	Quantity	1	1	Ω	Ω	Ω	Ω	At least 1	Ω	Ω	Ω	4	At least 4	Ω	Ω
Streams															
Number of streams transmitted	Quantity	512	512	Ω	Ω	Ω	Ω	At least 128	Ω	Ω	Ω	???	???	Ω	Ω
Number of streams received	Quantity	512	512	Ω	Ω	Ω	Ω	At least 128	Ω	Ω	Ω	???	???	Ω	Ω
Non-stream connections	Quantity	512 + 256	512 + 256	Ω	Ω	Ω	Ω	At least 128	Ω	Ω	Ω	???	???	Ω	Ω
Transmission selection control 802.1Q 8.6.8															
Strict priority	Feature	Supported	Supported	Ω	Ω	Ω	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Ω	Ω
Credit based shaper	Feature	Not used	Not used	Ω	Ω	Ω	Ω	Supported	Ω	Not used	Ω	Supported Supported, but optional	Supported Supported but optional	Ω	Ω
Scheduled traffic 802.1Q 8.6.9, 8.6.8.4															
Time aware shaper	Feature														
10Mbps	Feature	Supported	Supported	Ω	Ω	Ω	Ω	Supported	Ω	Not used	Ω	Supported but optional	Supported but optional	Ω	Ω
100Mbps	Feature	Supported	Supported	Ω	Ω	Ω	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Ω	Ω
1Gbps	Feature	Supported but optional	Supported but optional	Ω	Ω	Ω	Ω	Supported	Ω	Supported	Ω	Supported	Supported but optional	Ω	Ω
2.5Gbps	Feature	Not used	Not used	Ω	Ω	Ω	Ω	Ω	Ω	Not used	Ω	Supported, but optional	Not used	Ω	Ω
5Gbps	Feature	Not used	Not used	Ω	Ω	Ω	Ω	Ω	Ω	Not used	Ω	Supported, but optional	Not used	Ω	Ω
10Gbps	Feature	Not used	Not used	Ω	Ω	Ω	Ω	Ω	Ω	Not used	Ω	Supported, but optional	Not used	Ω	Ω
Cyclic queuing and forwarding	Feature	Not used	Not used	Ω	Ω	Ω	Ω	Supported	Ω	Not used	Ω	Not used	Not used	Ω	Ω
Gate Control List entries	Quantity	At least 3	At least 3	Ω	Ω	Ω	Ω	At least 8	Ω	At least 5	Ω	At least 3	At least 3	Ω	Ω
802.1Q 8.6.8.4															
Tick granularity	Quantity	<= 10ns	<= 10ns	Ω	Ω	Ω	Ω	<= 10ns	Ω	16ns	Ω	<= 100ns	<= 100ns	Ω	Ω
802.1Q 8.6.8.4															
Admin Cycle Time range 802.1Q 8.6.8.	Quantity				Ω		Ω		Ω		Ω				Ω
100Mbps	Quantity	250 μs to 1 ms	250 μs to 1 ms	Ω	Ω	Ω	Ω	250 μs to 20 ms	Ω	250 μs to 1 s	Ω	500 μs to 10 ms	<= 10ms	Ω	Ω
>=1Gbps	Quantity	31,25 μs to 1 ms	31,25 μs to 1 ms	Ω	Ω	Ω	Ω	250 μs to 20 ms	Ω	31,25 μs to 1 s	Ω	500 μs to 1 ms	<= 10ms	Ω	Ω
Timing points for scheduled traffic	Quantity	<= 10ns	<= 10ns	Ω	Ω	Ω	Ω	<= 10ns	Ω	16ns	Ω	<= 100ns	<= 100ns	Ω	Ω
Maximum gap for transmission of con	Quantity	IPG	IPG	Ω	Ω	Ω	Ω	IPG	Ω	96 bit times	Ω	IPG	IPG	Ω	Ω
Preemption 802.1Q 6.7.2	Feature	Supported	Supported	Ω	Ω	Ω	Ω	Not used	Ω	Not used	Ω	Not used	Not used	Ω	Ω
First fragment size	Quantity	128	128	Ω	Ω	Ω	Ω	—	Ω	—	Ω	—	---	Ω	Ω
Number of Hold & Release events	Quantity	2	2	Ω	Ω	Ω	Ω	—	Ω	—	Ω	—	---	Ω	Ω
10Mbps	Feature	Supported	Supported	Ω	Ω	Ω	Ω	Not used	Ω	Not used	Ω	Not used	Not used	Ω	Ω
100Mbps	Feature	Supported	Supported	Ω	Ω	Ω	Ω	Not used	Ω	Not used	Ω	Not used	Not used	Ω	Ω
1Gbps	Feature	Supported	Supported	Ω	Ω	Ω	Ω	Not used	Ω	Not used	Ω	Not used	Not used	Ω	Ω

Attribute	Classification	Full-Blown Devices Example Selection "SJ"	Constraint Devices Example Selection "SJ"	Full-Blown Devices Example Selection "TT"	Constraint Devices Example Selection "TT"	Full-Blown Devices Example Selection "RA"	Constraint Devices Example Selection "RA"	Full-Blown Devices Example Selection "AB"	Constraint Devices Example Selection "AB"	Full-Blown Devices Example Selection "MI"	Constraint Devices Example Selection "MI"	Full-Blown Devices Example Selection "YO"	Constraint Devices Example Selection "YO"	Full-Blown Devices Example Selection "BR"	Constraint Devices Example Selection "BR"
2.5Gbps	Feature	Supported but optional	Supported but optional	Ω	Ω	Ω	Ω	Not used	Ω	Not used	Ω	Not used	Not used	Ω	Ω
5Gbps	Feature	Not used	Not used	Ω	Ω	Ω	Ω	Not used	Ω	Not used	Ω	Not used	Not used	Ω	Ω
10Gbps	Feature	Not used	Not used	Ω	Ω	Ω	Ω	Not used	Ω	Not used	Ω	Not used	Not used	Ω	Ω
Synchronized network access															
Start of cycle trigger[3]	Feature	Supported	Supported	Ω	Ω	Ω	Ω	Supported	Ω	Supported	Ω	Supported	Supported	Ω	Ω
Per stream trigger	Feature	Not used	Not used	Ω	Ω	Ω	Ω	Supported	Ω	Not used	Ω	Not used	Not used	Ω	Ω
802.1Qcc 46.6.2.5.3.5															
Maximum gap for transmission of con	Quantity	IPG	IPG	Ω	Ω	Ω	Ω	IPG	Ω	96 bit times	Ω	IPG	IPG	Ω	Ω
Transmission into the network															
Real-Time traffic															
Stream High in-class interference															
>= 1Gbps	Quantity	Up to 200μs for a 1ms Admin Cycle time[5]	Up to 200μs for a 1ms Admin Cycle time[5]	Ω	Ω	Ω	Ω	Up to 2 ms	Ω	Up to 300 μs	Ω	Up to 500 μs for an egress port	Up to 200 μs for an egress port	Ω	Ω
<= 100Mbps	Quantity	Up to 500μs for a 1ms Admin Cycle time	Up to 500μs for a 1ms Admin Cycle time	Ω	Ω	Ω	Ω	Up to 2 ms	Ω	Up to 300 μs	Ω	Up to 500 μs for an egress port	Up to 200 μs for an egress port	Ω	Ω
Real-Time trafficStream Low intra- and in-class interference															
>= 1Gbps	Quantity	Up to 200μs for a 1ms Admin Cycle time[5]	Up to 200μs for a 1ms Admin Cycle time[5]	Ω	Ω	Ω	Ω	Up to 2 ms	Ω	Up to 300 μs	Ω	Up to 500 μs for an egress port	Up to 200 μs for an egress port	Ω	Ω
<= 100Mbps	Quantity	Up to 500μs for a 1ms Admin Cycle time	Up to 500μs for a 1ms Admin Cycle time	Ω	Ω	Ω	Ω	Up to 2 ms	Ω	Up to 300 μs	Ω	Up to 500 μs for an egress port	Up to 200 μs for an egress port	Ω	Ω
Non real-time traffic															
>= 1Gbps	Quantity	Up to 25 Kbytes per port	Up to 25 Kbytes per port	Ω	Ω	Ω	Ω	Up to 2 ms	Ω	Up to 300 μs	Ω	Up to 100 μs for an egress port	Up to 200 μs for an egress port	Ω	Ω
<= 100Mbps	Quantity	Up to 3,25 Kbytes per port	Up to 3,25 Kbytes per port	Ω	Ω	Ω	Ω	Up to 2 ms	Ω	Up to 300 μs	Ω	Up to 200 μs for an egress port	Up to 200 μs for an egress port	Ω	Ω

[1] Minimum and maximum for the delay before the first frame is transmitted after gate open

[2] Getting the value for calculating window sizes

[3] Specified as a special case of the per stream trigger by using "time aware offset = 0" for all streams

[4] Getting the value for network calculus and calculating window sizes

[5] An end-station may transmit fro this amount of time out of local memory