

# Time-Sensitive Networking (TSN) Profiles (Selection and Use of TSN tools)

Audio Video Bridging  
[802.1BA/Revision]

Fronthaul  
[802.1CM/de]

Industrial Automation  
[IEC/IEEE 60802]

Automotive In-Vehicle  
[P802.1DG]

Service Provider  
[P802.1DF]

Aerospace Onboard  
[IEEE P802.1DP / SAE AS6675]

## TSN Components

(Tools of the TSN toolset)

**Time synchronization:**  
Timing and Synchronization [802.1AS-2020]  
(a profile of IEEE 1588)  
Hot Standby [P802.1ASdm]  
YANG [P802.1ASdn]  
Inclusive Terminology [P802.1ASdr]

Synchronization

**High availability / Ultra reliability:**

Frame Replication and Elimination [802.1CB]  
Path Control and Reservation [802.1Qca]  
Per-Stream Filtering and Policing [802.1Qci]  
Reliability for Time Sync [802.1AS-2020]

Reliability

**Dedicated resources & API:**

Stream Reservation Protocol [802.1Qat]  
Link-local Registration Protocol [802.1CS]  
TSN Configuration [802.1Qcc]  
Foundational Bridge YANG [802.1Qcp]  
YANG for CFM [P802.1Qcx]  
YANG for LLDP [P802.1ABcu]  
YANG for 802.1Qbv/Qbu/Qci [P802.1Qcw]  
YANG & MIB for FRER [P802.1CBcv]  
Extended Stream Identification [P802.1CBdb]  
Resource Allocation Protocol [P802.1Qdd]  
TSN Configuration Enhancements [P802.1Qdj]  
LLDPv2 for Multiframe Data Units [P802.1ABdh]  
Multicast and Local Address Assignment [P802.1CQ]

Latency

**Bounded low latency:**

Credit Based Shaper [802.1Qav]  
Frame Preemption [802.1Qbu & 802.3br]  
Scheduled Traffic [802.1Qbv]  
Cyclic Queuing and Forwarding [802.1Qch]  
Asynchronous Traffic Shaping [802.1Qcr]  
Shaper Parameter Settings [P802.1Qdq]  
QoS Provisions [P802.1DC]

Resource Management

**Zero congestion loss =  
Bounded latency**

Note: A 'P' in front of '802.1' indicates an ongoing Project.