



Real-time
Ethernet [TSN]

Training Realtime Ethernet (TSN)

Day 1

Time Sensitive Network

Collection of standards under IEEE 802.1 on deterministics

Time synchronization - the basis of everything

Linux and PTP
Timestamping
Profiles

Deterministics and Ethernet - but how?

Traffic Scheduling – Qdiscs, Credit based/Time Aware shaper, Frame preemption, Earliest TxTime
Linux implementations – XDP, DPDK and other improvements for deterministic



Agenda Real-time Ethernet

Network Configuration

CUC and CNC
Support in mainline linux

Switched endpoints / Bridges

What is it and why?
Implementation in mainline Linux

Experience in implementation

IIC testbed, ProfiNET and TSN

Latency, Jitter, Synchronicity - measurements under Linux

Software:

- nothing

Hands-On training:

- not planned due to time constraints

Number of participants:

Due to our experience we know that a single instructor could coach a maximum of 8 persons. Our courses are therefore limited to this number of individuals.