Time-Sensitive Networking (TSN) Code Repository

Author of Code: Chuanyu Xue

Mentor / Area of Expertise: Song Han / Real-time system

Level of programming difficulty: Python basics

Skills/Tools required: Basic Python programming knowledge

Summary: TSNKit is an open-source toolkit for configuring Time-Sensitive Networking (TSN) networks developed in Python. It is designed to be used by network operators, researchers, and students to reproduce the classical TSN scheduling algorithms and rapidly configure the TSN network. The code repository also serves as the storage of source code and data of our paper.

GitHub Link: https://github.com/ChuanyuXue/tsnkit

Documentation: https://tsnkit.readthedocs.io/

Title of Paper: Real-Time Scheduling for 802.1Qbv Time-Sensitive Networking (TSN): A Systematic Review and Experimental Study

Authors of Paper: Chuanyu Xue, Tianyu Zhang, Yuanbin Zhou, Mark Nixon, Andrew Loveless, Song Han