Writing Fine-grained Measurements App with P4 Programmable Switches

Hands-on session 2: Monitoring Queue Occupancy on a Per-packet Basis

Elie Kfoury, Jorge Crichigno
University of South Carolina
http://ce.sc.edu/cyberinfra

University of South Carolina (USC)
Energy Sciences Network (ESnet)

September 18, 2023

Lab 6: Monitoring Queue Occupancy on a Per-packet Basis

Lab Topology and Objectives

- The topology consists of three hosts: Sender, Receiver, and Collector; one P4 switch: s1
- Sender will send iPerf3 traffic to Receiver
- The P4 switch will clone each packet and add to it the queue occupancy
- The cloned packet will be sent to the collector