CC\* Integration-Small: Integrating Application Agnostic Learning with FABRIC for Enabling Realistic High-Fidelity Traffic Generation and Modeling September 18, 2024

NSF Program: CISE Program Area: OAC



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# **Current State**

- Provide realistic traffic models to experimenters (preserving the privacy and security of source content)
- Integration components with FABRIC in Jupyter Lab Notebook environment
- Topology mapping to the traffic generation requirements

# Challenges

- Rich variety of traffic generation on the FABRIC experimenter topologies
- Support of traffic modeling research
- Support of networking researchers with generated traffic on their networks



### Additional Information

- Traffic Generation, Network Protocols
- o https://dl.acm.org/doi/abs/10.1145/3488375

# Approach

- Integrated approach with a Jupyter extension library
- Experimenter user experience that is seamless between FABRIC and traffic generation parameters

#### Impact

- Realistic traffic models
- Production-quality testing capabilities of new protocols and vendor offerings
- We are looking for user input: If you need realistically generated traffic in your network, please contact us: <u>dgurkan@kent.edu</u> (Deniz Gurkan)

