Enhancing Security Education through Transiting Research on Security in Emerging Network Technologies

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Challenge:

- Very few educational materials designed to engage students in effective learning of SDN and NFV security
- Need to meet the ever-increasing demand for high quality cybersecurity professionals with expertise in SDN and NFV security

Solutions:

- Develop an open laboratory for SDN/NFV security education using CloudLab
- Engage students through hands-on lab development
- Improve undergraduate research capabilities in SDN/NFV security
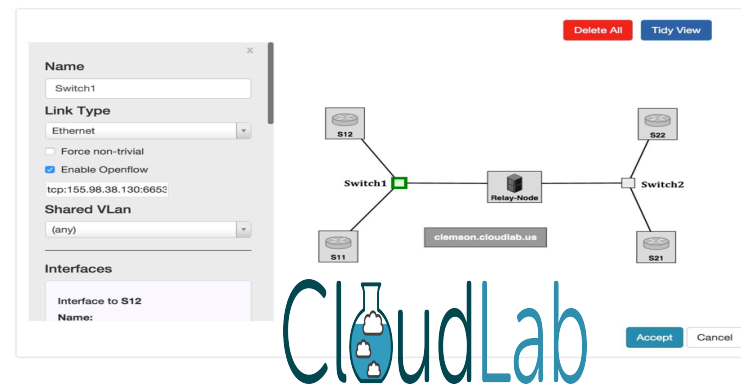- Inspire the research-to-education transition through faculty workshops
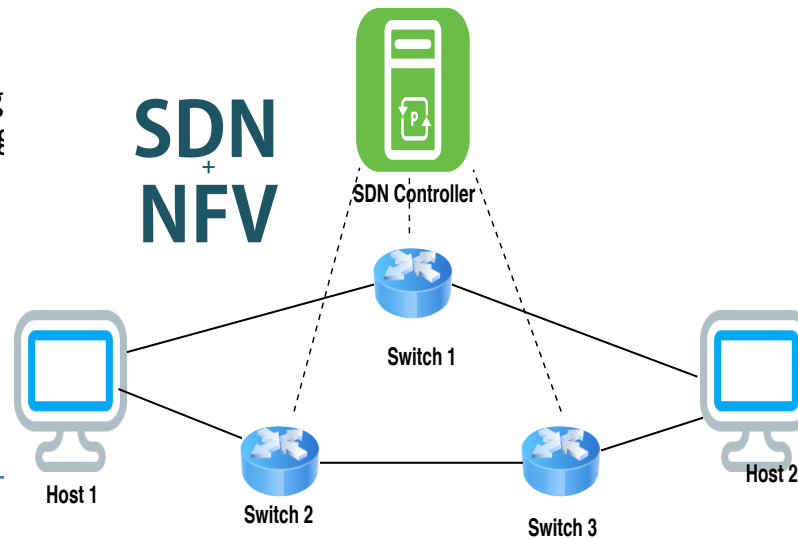
Scientific Impact:

- Build an open laboratory based on CloudLab, an NSF-sponsored cloud platform, for SDN and NFV security education
- Design SDN/NFV security hands-on labs and undergraduate research projects, and develop an curriculum along with faculty workshops

Broader Impact:

- Develop an open SDN/NFV labs in CloudLab
- Strengthen cybersecurity curricular and build partnerships with other institutions
- Course materials including videos, lecture slides, and quizzes are disseminated online
- Many users are using our labs in classes