

“CC* Cyberinfrastructure Topics Workshop”

Organized by

Minority Serving - Cyberinfrastructure Consortium (MS-CC)

Jorge Crichigno – University of South Carolina

March 22, 2023

Claflin University

Workshop Goals

- Help IT staff, managers, researchers, and students build upon their existing knowledge of networking "cyberinfrastructure" approaches that enable data movement for the purposes of research and data-oriented education activities
- The research and instruction efforts that are taking place in our institutions rely on network enhancements and with the enhancements the need for performance and monitoring tools

Website

- http://ce.sc.edu/cyberinfra/workshop_2023_claflin.html

Agenda

Wednesday March 22, 2023

Time (ET) (pm)	Topic	Presenter
02:00 PM - 02:20 PM	Introduction to Science DMZ	Jorge Crichigno
02:20 PM - 03:00 PM	Hands-on Session 1: iPerf3, TCP Buffer Size, Impact of Packet Loss	Jorge Crichigno, Elie Kfoury
03:00 PM - 03:15 PM	Break	
03:15 PM - 03:45 PM	Introduction to perfSONAR	Jorge Crichigno
03:45 PM - 04:45 PM	Hands-on Session 2: Configuring perfSONAR, regular tests using GUI, pScheduler	Jorge Crichigno, Elie Kfoury
04:45 PM - 05:00 PM	Discussions	Jorge Crichigno, Elie Kfoury
Survey		

Lab Libraries

- **perfSONAR**
- **Introduction to BGP**
- Introduction to P4 Programmable Switches - BMv2
- Advanced Topics on P4 Programmable Switches - BMv2
- P4 Programmable Switches - Tofino
- Network Operating Systems: ONL, SONIC, Stratum
- Software Defined Networking (SDN)
- Open vSwitch (OvS)
- Network Tools and Protocols (NTP)
- Introduction to OSPF
- MPLS and Advanced BGP Topics
- Zeek/Bro
- Cybersecurity Tools and Applications

See <http://ce.sc.edu/cyberinfra/cybertraining.html> for details.

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