



NSF Campus Cyberinfrastructure PI and Cybersecurity Innovation for Cyberinfrastructure PI Workshop

September 23 – 25, 2019 | Minneapolis, MN

NSF Program: Campus Cyberinfrastructure (CC)

Program Area: DDNI

Award Number: #1925623

PI: Jeff Whitworth, UNC Greensboro

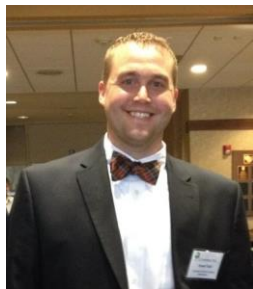
co-PIs: Daniel Todd, Geoff Starnes, and Shyam Aravamudhan

Project Title: Gate City Research Network – A Multi-Institution
Science DMZ



Jeff Whitworth

Associate Vice Chancellor
Information Technology Services
UNC Greensboro
jnwhitwo@uncg.edu



Daniel Todd, PhD

Director
Triad Mass Spectrometry Facility
UNC Greensboro
datodd3@uncg.edu



Geoff Starnes

Associate Vice Chancellor
Information Technology Services
NC A&T State University
grstarnes@ncat.edu



Shyam Aravamudhan, PhD

Associate Professor
Joint School of Nanoscience and
Nanoengineering
NC A&T State University
saravamu@ncat.edu



NSF Campus Cyberinfrastructure PI and Cybersecurity Innovation for Cyberinfrastructure PI Workshop

September 23 – 25, 2019 | Minneapolis, MN

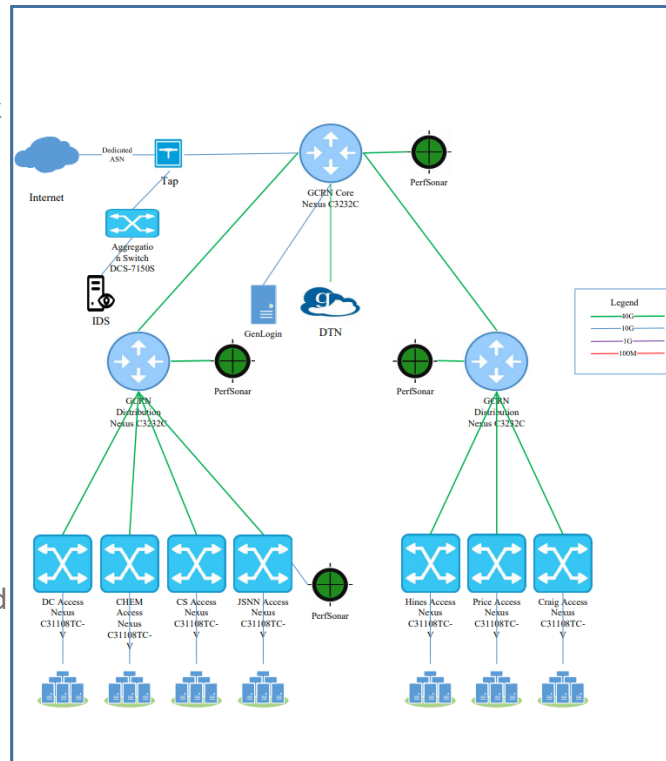
Quad Chart for: *Gate City Research Network – a Multi-Institutional Science DMZ*

Challenges:

- Scientific data transfers compete with enterprise and entertainment network traffic
- Data transfer processes are ad-hoc and inefficient
- Build upon a joint-owned optical fiber loop

Deliverables:

- Create a dedicated high-speed research network between UNCG and NC A&T that is not impacted by enterprise network traffic
- Achieve faster transfers of large data to partner institution HPC environments using a DTN
- Improve the data transfer process from scientific equipment located on the UNCG, NC A&T, and JSNN campuses



Broader Impact: *Multi-Institutional Model*

- Governance Template
- Partner HPC resources
- Scalable participation model
- 28 colleges within 50 miles

Metadata tag:

- `<https://gcrNet.org>`
- `<Project starting up>`
- `<Design Validation>`
- `<Governance>`