



NSF Campus Cyberinfrastructure PI and Cybersecurity Innovation for Cyberinfrastructure PI Workshop

October 3-4 | Albuquerque, New Mexico

NSF Program (either CC or CICI): CC

Program Area:

Campus Cyberinfrastructure (CC-NIE)

Award Number: 1659210

PI: Suzanne S. Sindi

co-PIs: Nicola Lercari, Ashlie Martini, Thomas DeFanti, Michael Spivey

Project Title: CC* Networking Infrastructure: Building a Science DMZ
Network for UC Merced

Suzanne Sindi

Assistant Professor of Applied
Mathematics

Organization: UC Merced

Email: ssindi@ucmerced.edu



Jeffrey Weekley

Director of Cyberinfrastructure &
Research Computing

Organization: UC Merced

Email: jweekley@ucmerced.edu



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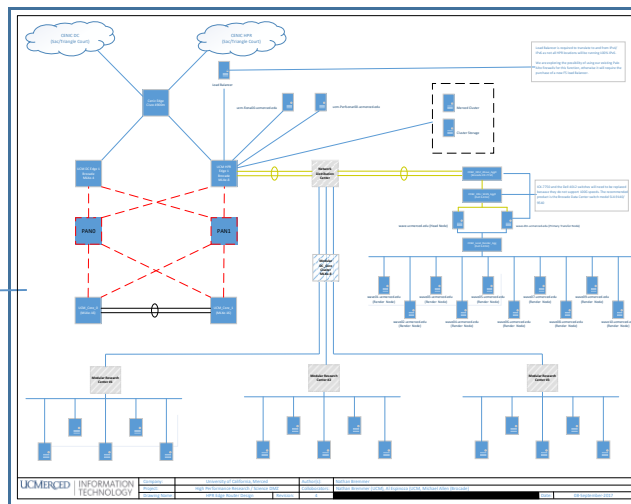
Building a Science DMZ at UC Merced

Challenge or Approach: UC Merced lacks a dedicated Science DMZ Network

- Campus production network ill-suited for data intensive research
- Current security model hampers big data movement
- Networked data collaboration requires repeatability, predictability and robustness to succeed

Solution(s) or Deliverables: Build a dedicated Science DMZ Network

- 10-100Gbps throughput dedicated to research traffic
- Topologically distinct from but supported by the NGN Network (production network)
- Fully instrumented w/ network measurement tools (perfSONAR)
- Dedicated Data Transfer Nodes (FIONAs) for Faster Data end-to-end



Campus-wide Scientific Impact:

- GB-TB Data storage and transfer
- Computational portability
- Streamlined Analysis
- Real-time visualization
- CogSci, Mathematics, Engineering, Physics, Chemistry, Biology, World Heritage, Social Sciences, Public Humanities

Metadata tag: High-speed Networking

- <https://it.ucmerced.edu/high-speed-networking/>
- *Pacific Research Platform, ready!*
- *Multi-disciplinary*
- *High-impact for women and minority students (67% of undergrads)*
- *Leverages previous NSF support (Award ACI-1429783)*