



NSF Campus Cyberinfrastructure PI and Cybersecurity Innovation for Cyberinfrastructure PI Workshop

October 3-4, 2017 | Albuquerque, NM

NSF Program: CC*DNI

Program Area: CI Engineer

Award Number: 1541170

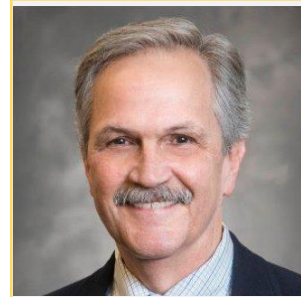
PI: Roger Bielefeld, Case Western Reserve University

co-PI: Sue Workman, Case Western Reserve University

Project Title: Cyberinfrastructure Engineer at CWRU

Project Goals:

- Understand needs of researchers and guide their use of campus CI to ensure optimal benefit
- Make architectural, design, and configuration changes to the campus CI to better serve the research community
- Ensure that campus researchers are able to fully leverage local, regional, and national cyberinfrastructure



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Quad Chart for:

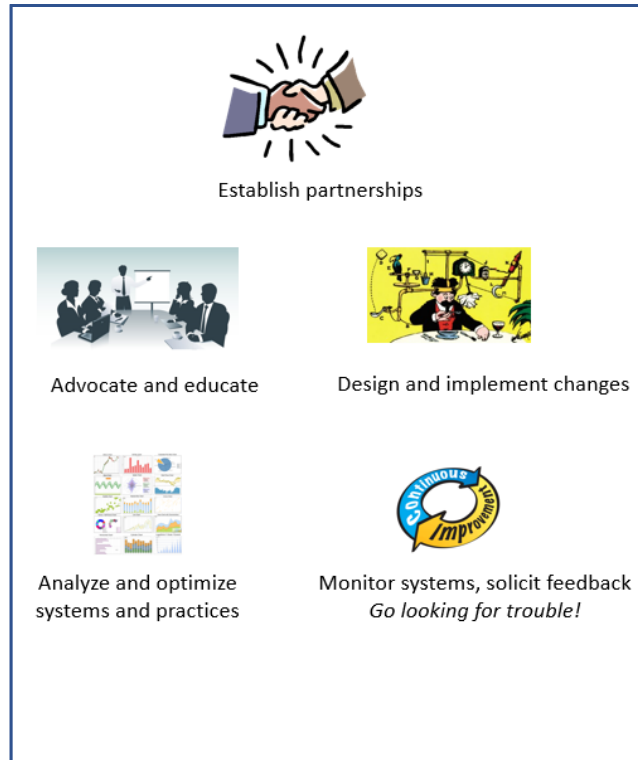
CI Engineer for Case Western Reserve University

Approach:

- Extend our “staff embedding” program by adding CI Engineer
- Optimize use of our campus CI by researchers, establish best practices, identify and reduce pain points
- Enhance / Tweak our campus CI when necessary

Deliverables:

- Proactive approach in cases of known need, with positive effect on several research groups via education or minor change in use of network
- Ability to react quickly to new issues as they arise
- Expertise applied to special situations (HPC and secure research environment)
- Identify network deficiencies and implement solutions to mitigate them



Scientific (and Broader) Impact:

- Multiple successes in optimizing use of campus CI resulting from personal interaction
- Increased outreach has led to increased trust and better relationships
- Pre-position capabilities to help secure grant funding

Metadata tag:

- Dedicated network engineer – project oriented instead of operationally focused
- Installing 25 Gbps fabric among HPC nodes
- Installing 10 Gbps bandwidth into selected research labs
- Building internal perfSONAR mesh, will use MaDDash to monitor
- Open to collaboration with other institutions