



NSF Campus Cyberinfrastructure PI and
Cybersecurity Innovation for Cyberinfrastructure PI Workshop
October 3-4 | Albuquerque, New Mexico

NSF Program: CC*

Award Number: 1659088

Program Area: Networking Infrastructure

PI: David Lifka

co-PIs:

Project Title: CC* Networking Infrastructure: Enabling Data Intensive Science at Cornell University



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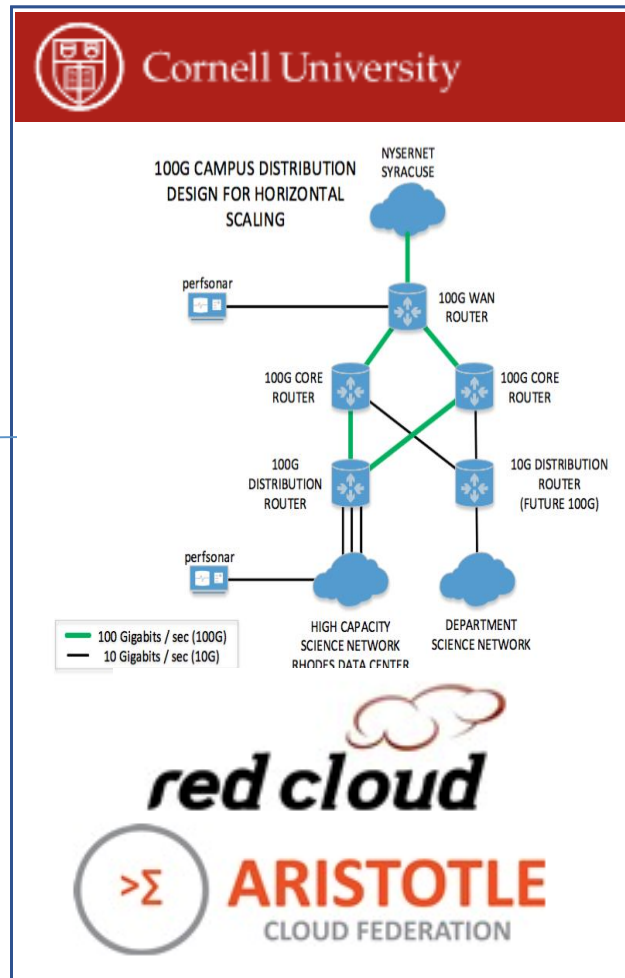
Quad Chart for: *CC* Networking Infrastructure: Enabling Data Intensive Science at Cornell University*

Challenge:

- Research and educational compute resources moving to the cloud
- New research emphasizes big data and cross-institution collaboration
- Support of NSF CC*DNI DIBBs for cross-country federated cloud for sharing compute resources and large-scale data analysis

Solutions:

- Extend existing campus upgrade project to include 100G in the core to Internet2 this will enable scientists in all buildings to utilize a 10G path to the cloud and other institutions.
- Provide 100G path to research data center for CAC (Center for Advanced Computing)
- Develop researcher awareness of data transfer tools, IPv6 options and network capacity and latency considerations



Broader Impact:

- Cornell Scientists in all disciplines will have improved bandwidth to data and cloud resources, not just traditional big data research projects
- Remote collaborators will have high volume frictionless access to Cornell data sets, instrumentation, and computational and data analysis resources

Metadata tag:

- New routers in place ready for 100G cards
- Building up optical link to Internet2 site
- Deployed test perfSONAR servers
- Integrating IPv6 into network management
- Designing training, awareness seminars for researchers on Globus, data transfer, IPv6, perfSONAR, and security.