



# NSF Campus Cyberinfrastructure PI and Cybersecurity Innovation for Cyberinfrastructure PI Workshop

September 24-27, 2018 | College Park, MD

**NSF Program (either CC or CICI): CC**

**Program Area: Networking  
Infrastructure**

**Award Number: 1659348**

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**Project Title: Improving Network Infrastructure to Enable Large Scale Scientific  
Data Flows and Collaboration**



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## Quad Chart for:

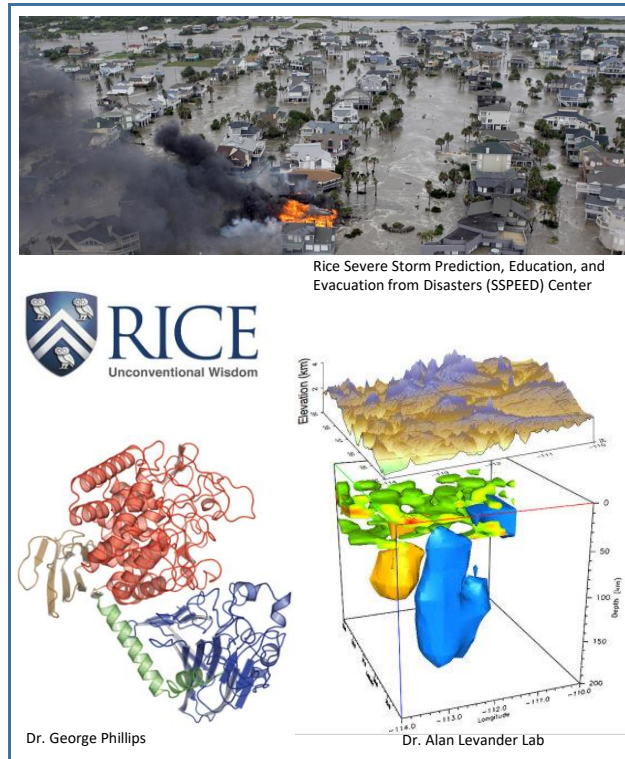
## Improving Network Infrastructure to Enable Large Scale Scientific Data Flows and Collaboration

### Challenge or Approach:

- Rice University network is protected by firewalls and not designed for supporting advanced data-movement
- Researchers in Rice labs consume and produce data volumes that cannot be efficiently supported by current campus wide-area network connections
- Researchers need advance friction free networks to access instruments and computational facilities

### Solution(s) or Deliverables:

- Friction-free network path characterized by highly capable network devices and virtual circuit connectivity options
- Dedicated high-performance (up to 100 gb/s capable) data-transfer node
- BRO Cluster to secure Rice SciDMZ network flows
- Integration of test nodes and performance measurement infrastructure (perfSONAR)



### Scientific Impact or Broader Impact:

- Ability to conduct multi-disciplinary and collaborative research on campus.
- Ability to conduct multi-institutional research
- Enable the creation of more complex and realistic models and simulations to mimic real world experience and projections.
- Improve access to and ability to share large datasets

### Metadata tag:

<http://news.rice.edu/2017/01/23/nsf-cyberinfrastructure-grant-will-provide-dedicated-lane-for-research-traffic>