Cyberinfrastructure for Research Data Management Workshop
May 23, 2023
Jim Stankiewicz
Principal Network Architect
Edge Designs, Installs and Operates currently five Networks

** PACKET NETWORKS **

- **AS-21976** (Commodity Internet Network)
- **AS-62532** (Internet 2 Access Network)

** DWDM Optical Transport Network **

- Optical DWDM Line Transport

** DWDM Transponder/MuxPonder **

- Transponders from Line Transport (Multiple Vendors)

** NJIT HPC DWDM Optical Transport Network (Managed DWDM Optical Transport) **

Managed via dedicated management segment
AS-21976 Scalable Fabric Commodity Internet

- HD 100/400
- Internet
- NCS (Member)
- IXP/CDN Peering
- A9K (members)
- NCS (Members)
- Equinix Cloud Exchange
- LISP Proxy
- Edge Optical
- NCS (members)
- Equinix Cloud Exchange
- IXP/CDN Peering
- NCS (peering)
- A9K (members)
- Equinix Cloud Exchange (Akamai)
- LISP Proxy
- HD 100/400
- Internet
- IXP/CDN Peering
- NCS (peering)
- A9K (members)
- Equinix Cloud Exchange (Akamai)
- LISP Proxy
DWDM Optical Line Transport Network Current State

- Princeton
- HPCRC
- Princeton POP
- Princeton
- PPPL/ESNET
- Princeton
- PPPL/ESNET
- Halsey/Newark NJ
- Rutgers FSCI
- Rutgers
- NJFX/CLS Wall, NJ
- Europe
- Subsea Fiber
- South America
- ESNET
- Netrality/Philadelphia
- 32 AOA
DWDM Optical Line Transport Network Planned Expansion

- Princeton
- HPCRC
- Princeton POP
- PPPL/ESNET
- Databank
- Princeton
- Princeton POP
- PPPL/ESNET
- ESNET

32 AOA

- Halsey/Newark NJ
- Rutgers
- Rutgers FSCI
- Europe
- South America
- Subsea Fiber

Netrality/Philadelphia

ESNET

NJFX/CLS Wall, NJ

Rutgers
NJIT Managed Optical Service Databank

- GITC Newark NJ
- FMH Newark NJ
- Databank Piscataway NJ

Connections:
- GITC Newark NJ to Edge Optical
- FMH Newark NJ to Edge Optical
- Edge Optical to Databank
- Edge Optical to Edge Optical
- NX100G (bidirectional)

 NX100G