

## **Large Scale Networking (LSN)**

**NITRD Agencies: NSF, OSD and DoD Service research organizations, NIH, DARPA, DOE/SC, NSA, NASA, AHRQ, NIST, DOE/NNSA, NOAA**

**Other Participants: USGS**

LSN members coordinate Federal agency networking R&D in leading-edge networking technologies, services, and enhanced performance, including programs in new architectures, optical network testbeds, security, infrastructure, middleware, end-to-end performance measurement, and advanced network components; grid and

architectures, experimental infrastructure, and control plane technology; academia/industry/government workshop to identify networking R&D needs – Multiple agencies

**Coordination by LSN Teams:**

- **Joint Engineering Team (JET):** DOE/SC, NASA, NIH, NIST, NOAA, NSA, NSF, OSD (HPCMPO), USGS, with participation by academic organizations (CAIDA, CENIC, Internet2, ISI, MAX, NLANR, StarLight), national labs (ANL), supercomputing centers (ARSC, MCNC, PSC), universities (FIU, IU, UIC, UMD, UNC, UW), and vendors – ONTs; engineering research networks (JETnets); security best practices; applications testbeds (IPv6, IPv6 multicast, performance measurement); metrics and monitoring: interdomain, end-to-end, internal network visibility; tool sharing and data exchange; 9,000-byte MTU recommendation; international coordination; transit and services cooperation
- **Middleware and Grid Infrastructure Coordination (MAGIC) Team:** DOE/SC, NIH, NIST, NOAA, NSF, with participation by academic organizations (EDUCAUSE, Internet2, ISI, UCAR), national labs (ANL, LANL, LBL, PNL), universities (UIUC, UMD, UNC, UWisc), and vendors – Middleware and grid tools and services; applications; coordinated certificate authorities for security and privacy; collaboration infrastructure; standards development; international coordination (e.g., federated certificate authorities under Americas Policy Management Authority)
- **Networking Research Team (NRT):** DARPA, DOE/SC, NASA, NIA, MaASA, dors –