



# Federal Networking and Information Technology R&D Program



**Wendy Wigen**  
**Technical Coordinator**  
**NCO/NITRD**  
**May 12, 2011**



# NITRD and the NCO

- NITRD: an interagency program to enhance coordination and collaboration of the IT R&D that is performed and supported by Federal agencies
- NCO: National Coordination Office-- provides support for the NITRD Program, reports to OSTP, and interfaces for NITRD with OMB, GAO, Congress, etc.

# Hierarchical Matters

- NITRD is co-chaired by the NSF assistant director for CISE and the NCO director
- NITRD is a subcommittee of the National Science and Technology Council's (NTSC) Committee on Technology
- NITRD is reviewed by the President's Council of Advisors for Science and Technology (PCAST)

# Member Agencies

- DoC
  - NOAA
  - NIST
- DoD
  - DDRE
  - HPCMO
  - DARPA
  - Service Res Orgs
- DoE (SC & NNSA)
- DHS
- EPA
- HHS
  - AHRQ
  - NIH
  - ONC (new member)
- NARA
- NASA
- NSA
- NSF (CISE & OCI)

# NITRD PCAs

## (program component areas)

- High-End Computing (i&a)
- **Human Computer Interaction and Info Mgmt**
- High-End Computing (r&d)
- Cyber Security and Information Assurance
- Large Scale Networking
- Social, Economic, and Workforce Implications
- High Confidence Software and Systems
- Software Design and Productivity
  
- FASTER uptake of research results

# NITRD SSGs

## (senior steering groups)

- Cybersecurity -> CSIA
- Health IT R&D
- Wireless Spectrum Efficiency -> LSN
- **Big Data (aka data-intensive sci) -> HCI&IM**
- Energy and Transportation? -> HCSS

# Big Data or Data Intensive Science

- ◆ All about Research and Development of the *technology* needed to get where we want to go...
- ◆ What are the agencies doing, what can they coordinate on, where are the gaps?
- ◆ How to use limited funds to get where we want to be....

# CENDI's *Moving Forward*

- CENDI defined the major technical challenges that must be met:
  - Linking text to non-text data formats
  - Integrating semantic search technologies
  - Innovative analytical tools
  - Machine learning... automated analysis to help sort the relevant from irrelevant... to do the basic analysis.. detect the relationships, visualize the data for human analysis
- + *Interoperability of data bases*

*"We don't have a data problem... we  
have an analysis problem..."*

# Big Data's Marching Orders

- ◆ Identify opportunities for short term actions
  - A FY11 or FY12 solicitation
  - Current educational offerings
  - Sponsorship of competitions
  - Public-Private partnerships
  
- ◆ Describe what a National Initiative would look like, its vision, goal, scope. (July 1)
  
- ◆ Deliver a fleshed out National Initiative suitable for discussion (Sept 1)