Networking Research Team (NRT)

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NITRD Program Coordination

WHITE HOUSE

Executive Office of the President
Office of Science and Technology Policy

National Science and Technology Council

President's Information Technology Advisory Committee (PITAC)

U.S. Congress

NITRD Authorization and Appropriations Legislation

National Coordination Office (NCO) for Information Technology Research and Development

Interagency Working Group (IWG) on Information Technology R&D

Participating Agencies: AHRQ, DARPA, DOE/NNSA, DOE/SC, EPA, NASA, NIH, NIST, NOAA, NSA, NSF, ODDR&E

- High End Computing Coordinating Group (HEC)
- Large Scale Networking Coordinating Group (LSN)
- High Confidence Software and Systems Coordinating Group (HCSS)
- Human Computer Interaction & Information Management Coordinating Group (HCI & IM)
- Software Design and Productivity Coordinating Group (SDP)
- Social, Economic and Workforce Implications of IT and IT Workforce Development Coordinating Group (SEW)

Networking Research Team (NRT)

- Reports to the Large Scale Networking (LSN) Coordinating Group of the Interagency Working Group on IT R&D
- Coordinates
  - agency research agendas
  - research programs
  - program reviews
  - planning of infrastructure to support advanced networking research.
- Includes DARPA, DOE/SC, NASA, NIST, NSA, and NSF as members
- Holds monthly meetings

NRT Challenges

- NRT serves an important function and represents a key forum for shaping networking research

- How to be effective?
  - Make it worthwhile for agency representatives
  - Learn from the research community
  - Allow research community to benefit from this forum
  - Not be overwhelmed with logistical and tactical details

Agency Representatives Needs

- Learn about programs in other agencies
- Advertise your programs to others
- Showcase important results from the program
- Learn from the leading researchers
  - technology trends
  - emerging disruptive technologies
  - research challenges and opportunities
- Help shape new programs

Be a more effective program director

Community Needs

- Share with program directors across agencies
  - Their latest and greatest results
  - New technology trends
  - Research and infrastructure challenges
  - How community can be more effective in research

Suggestions

- Pick four research areas of emphasis for the year
  - important and critical for multiple agencies
- For each chosen area
  - Have agency representatives present highlights of existing programs and any future programs under consideration
  - Invite select PIs and industry experts to share their perspectives
  - Talk about any coordination among agencies that can help
- Suggested areas for this year include
  - Wireless and Sensor Networking
  - Network Security
  - High Capacity Networking
  - Any other suggestions?

Suggestions for Monthly Meetings

- 0.5hrs for logistical and tactical matters
- 1.5hrs for organized presentations
  - Agency representatives
  - Invited speakers from PI community/industry

Sensor Networking

- Sensor networking programs
  - Vijay Raghavan (DARPA)
  - Fil Bartoli and Guru Parulkar (NSF)
  - Keith Ward and Steven Buchsbaum (DHS)
  - Angela Schuett (NSA)
  - other agencies??
- Candidates for invited speakers
  - David Culler (Berekeley), David Wagner (Berekeley, Sensor Network security), Debra Estrin (UCLA), Anish Arora (OSU), John Strand (ORNL, sensor network testbed), Jack Stankovic (UVA), Kris Pristor (Smart Dust Inc and Berkeley), Hari Balakrishnan (MIT), Margo Seltzer (Harvard), Feng Zhao (Microsoft), and more

Wireless Networking

- Programmable, mobile, wireless networking
  - Joe Evans (NSF)
  - Preston Marshall (DARPA)
  - Other names
- Candidates for invited speakers
  - Paul Kolodzy (Stevens), Babak Daneshrad (UCLA), Mario Gerla (UCLA), Mark McHenry (Shared Spectrum), Gary Minden (KU), Ramesh Rao (UCSD), Dipankar Raychaudhuri, (Rutgers), Dennis Roberson (IIT, formerly CTO of Motorola), Peter Stanforth (Mesh Networks), Frank Vernon (UCSD), Moe Win (MIT)

Proposed Schedule

- April
  - Presentations from agency representatives
  - Plan for a mini-workshop in June
- May
  - Presentations from 3 area experts from the community
    - Wireless Mobile Networking
    - Sensor Networking
    - Programmable Wireless Networking
  - Plan for a mini-workshop in June
- June
  - A day long mini-workshop: summarize state of the art and research opportunities and challenges
  - Presentations from agency representatives
  - Presentations from the PI and industry experts