NITRD Research Interests of the Agencies

NSF – supports basic research in all NITRD areas, incorporates IT advances in science and engineering applications, supports computing and networking infrastructure for research, and educates world-class scientists, engineers, and IT workforce professionals.

NIH – is applying the power of computing, both to manage and analyze biomedical data and to model biological processes, in its goal to develop the basic knowledge for the understanding, diagnosis, treatment, and prevention of human disease.

DOE/SC – is exploring, developing, and deploying computational and networking tools that enable researchers in the scientific disciplines to model, simulate, analyze, and predict complex physical, chemical, and biological phenomena important to DOE. The Office also provides support for the geographically distributed research teams and remote users of experimental facilities whose work is critical to DOE missions. FY 2004 is the fourth year of the Office's Scientific Discovery through Advanced Computing (SciDAC) initiative, which is focused on the next generation of scientific simulation and collaboration tools for the scientific areas that are the focus of DOE research.

NASA – is extending U.S. technological leadership to benefit the U.S. aeronautics, Earth and space science, and spaceborne research communities.

DARPA – is focused on future-generations computing, communications, and networking as well as embedded software and control technologies, and human use of information technologies in national defense applications such as battlefield awareness.

NSA – is addressing some of the most challenging problems in the country in computing, storage, communications, networking, and information assurance in order to help ensure our national security.

AHRQ – focuses on research into state-of-the-art IT for use in health care applications such as computer-based patient records, clinical decision support systems, and standards for patient care data, information access, and telehealth.

NIST – is working with industry and with educational and government organizations to make IT systems more useable, secure, scalable, and interoperable; to apply IT in specialized areas such as manufacturing and biotechnology; and to encourage private-sector companies to accelerate development of IT innovations. It also conducts fundamental research that facilitates measurement, testing, and the adoption of industry standards.

NOAA – is an early adopter of emerging computing technologies for improved climate modeling and weather forecasting, and of emerging communications technologies for disseminating weather forecasts, warnings, and environmental information to users such as policymakers, emergency managers, industry, and the general public.

EPA – has the IT research goal of facilitating multidisciplinary ecosystem modeling, risk assessment, and environmental decision making at the Federal, state, and local levels, and by other interested parties, through advanced use of computing and other information technologies.

DOE/NNSA – is developing new means of assessing the performance of nuclear weapon systems, predicting their safety and reliability, and certifying their functionality through high-fidelity computer models and simulations.

Other Participating Agencies

Other Federal agencies participate in networking and information technology research and development, and/or coordinate with NITRD activities, using funds that are not budgeted under the program. These agencies include:

- Air Force Research Laboratory (AFRL)
- Department of Defense/High Performance Computing Modernization Program Office (DoD/HPCMPO)
- Federal Aviation Administration (FAA)
- Food and Drug Administration (FDA)
- General Services Administration (GSA)
- Office of Naval Research (ONR)