

NITRD LEADS IT



July 2016

NITRD News Spotlight:

National Privacy Research Strategy (NPRS)

The **National Privacy Research Strategy**, developed by research agencies across the government and led by the Networking and Information Technology Research and Development (NITRD) Program, was released on July 1. The strategy calls for research along a continuum of challenges, from how people understand privacy in different situations and how their privacy needs can be formally specified, to how these needs can be addressed, to how to mitigate and remediate the effects when privacy expectations are violated. Following the release of this strategy, NITRD is also launching a Federal Privacy R&D Interagency Working Group, which will lead the coordination of the Federal Government's privacy research efforts. [Learn more about the National Privacy Research Strategy.](#)

2016 Wireless Spectrum R&D Project Inventory

The **Wireless Spectrum R&D Project Inventory** is one of the tools created by the NITRD Wireless Spectrum R&D (WSRD) Interagency Working Group (IWG) to help reduce redundancy of research investments, foster collaboration, and inform the work of fellow research organizations in public, private, and academic sectors. The inventory contains projects that have been completed or are scheduled to be completed, between January 1, 2015 and December 31, 2018, and are at Maturity level TRL-2 or above. [Learn more about the Wireless Spectrum R&D Project Inventory.](#)



Director's Corner

Welcome to this first issue of *NITRD Leads IT*, a quarterly newsletter of the Networking and Information Technology Research and Development (NITRD) Program.

We launched this newsletter to help you keep up to date with the most recent and future happenings in NITRD. We will underline the coordination activities of the NITRD Interagency Working Groups (IWGs) and Community of Practices (COPs) as well as the NITRD Subcommittee itself. We'll update you on developing and released R&D strategic plans, agenda-defining workshops, and activities that engage non-government stakeholders like industry and academics. We hope that you find this newsletter to be informative, interesting, and useful.

Of course, we'd appreciate hearing from you with your ideas and suggestions for this and future newsletters. Please don't hesitate to reach us at: NITRDLeadsIT@nitrd.gov

-Keith Marzullo

Publication Highlights

2016 Federal Cybersecurity Research and Development Strategic Plan

The ***Federal Cybersecurity Research and Development Strategic Plan: Ensuring Prosperity and National Security***, coordinated by the National Science and Technology Council (NSTC), respond to the *Cybersecurity Enhancement Act of 2014*, signed into law by the President. This law directs the NSTC and the Networking and Information Technology Research and Development (NITRD) Program to develop and maintain a strategic plan to guide the overall direction of Federally-funded cybersecurity research and development (R&D). This Plan builds on *Trustworthy Cyberspace: Strategic Plan for the Federal Cybersecurity Research and Development Program*, which was released in December 2011. [Learn more about the Federal Cybersecurity R&D Strategic Plan.](#)

2016 Federal Big Data Research and Development Strategic Plan

The ***Federal Big Data Research and Development Strategic Plan***, developed by the Big Data Senior Steering Group (BD SSG), an interagency group under the NITRD Program, provides guidance on strategies for Federal agencies to use when developing, or expanding, their individual Big Data R&D plans. This Plan follows the announcement of the Administration's Big Data Research and Development Initiative. The initiative "promises to transform our ability to use Big Data for scientific discovery, environmental and biomedical research, education, and national security." The Plan is built around seven strategies that represent key areas of importance for Big Data research and development (R&D). [Learn more about the Federal Big Data R&D Strategic Plan.](#)

NITRD Matters

The NITRD Program seeks to provide opportunities for interagency coordination and collaboration and opportunities for public engagement to ensure U.S. world leadership in advanced information technology. The Program can and does touch our lives directly. Work on large-scale networking is laying the foundation for the next iteration of the internet; cybersecurity and advancements in privacy research will protect our ever growing digital footprint and personal data; faster, higher performance computers will result in better weather forecasting and climate change models; advancements in precision medicine; and simulation of everything from airplane components and economic growth models to battlefield dynamics. Smart communities' research will usher us into a new, more connected urban age.

With the White House Office of Science and Technology Policy (OSTP), and the NITRD Subcommittee of the Committee on Technology under the National Science and Technology Council (NSTC), the NITRD Program, supported by the National Coordination Office (NCO), will help chart the future course of IT for our Nation.

NITRD Accomplishments:

The [FY 2017 NITRD Supplement to the President's Budget](#) was released on April 25, 2016. This document describes the activities underway in 2016 and planned for 2017 by the Federal agencies participating in the NITRD Program, primarily from a programmatic and budgetary perspective. It reports actual investments for FY 2015, estimated investments for FY 2016, and requested funding levels for FY 2017 by Program Component Area (PCA).

In August 2015, the President's Council of Advisors on Science and Technology (PCAST) released the ***Report to the President and Congress Ensuring Leadership in a Federally Funded Research and Development in Information Technology***, where Findings and Recommendations were made to the NITRD Program. [Learn more about the PCAST Report.](#)

NITRD Testimony

Dr. Keith Marzullo

On October 28, 2015, Dr. Marzullo was called before the Subcommittee on Research and Technology, to testify at the Congressional Hearing: *A Review of the NITRD Program*.

[Watch the entire Hearing and testimony of Dr. Marzullo.](#)

NITRD Updates

Proposed FY 2018 NITRD PCAs

In January 2016, the NITRD Subcommittee stood up a Fast-Track Action Committee (FTAC) to review and adopt the remaining NITRD PCAs and definitions for FY 2018. The following PCAs were accepted and submitted by the NITRD Subcommittee as the proposed FY 2018 NITRD PCAs and definitions:

- *Computing-Enabled Networked Physical Systems (CNPS)*-new
- *Computing-Enabled Human Interaction, Communication, and Augmentation (CHuman)*-new
- *Education and Workforce (EdW)* -new
- *Software Design and Productivity (SDP)*
- *High-Capability Computing Infrastructure and Applications (HCIA)*
- *Robotics and Intelligent Systems (RIS)*
- *Cybersecurity and Information Assurance (CSIA)*
- *Enabling-R&D for High-Capability Computing Systems (EHCS)*
- *Large-Scale Data Management and Analysis (LSDMA)*
- *Large Scale Networking (LSN)*



Check out the NCO/NITRD **YouTube videos** from workshops, presentations, and meetings!

<https://www.youtube.com/user/TheNCONITRD>

New NITRD Groups and Activities

The NITRD Program aims to stay on the leading edge of the IT revolution by responding to several new Administration initiatives, standing up new focus groups in critical areas. These areas are:

- **Smart Cities:** The Administration announced a “Smart Cities” Initiative in September 2015. The NITRD Program released a new framework to help coordinate Federal agency investments and outside collaborations for this effort. [Learn more about Smart Cities.](#)
- **Privacy:** The OSTP tasked the NITRD CSIA R&D SSG to lead the development of the [National Privacy Research Strategy \(NPRS\)](#). This Strategy establishes objectives and prioritization guidance for federally-funded privacy research and provides a framework for coordinating R&D in privacy-enhancing technologies.
- **Video and Image Analytics (VIA):** The NITRD Subcommittee created the VIA IWG to ensure and maximize coordination and collaboration across Federal government in R&D efforts for the creation of new analytic technologies to help agencies make their video data more accessible, efficient, effective, and useable. A VIA strategic plan is expected in 2017. [Learn more about the VIA IWG.](#)
- **Robotics:** Subsequent to the establishment of the National Robotics Initiative (NRI) by President Obama in 2011, NITRD formed a Robotics and Intelligent Systems (RIS) PCA and IWG to coordinate agency investments and activities in this area while expanding the work in the NRI.
- **Machine Learning and Artificial Intelligence (MLAI):** The OSTP tasked NITRD to create a National MLAI R&D Strategic Plan that can be released to the public in the fall of 2016 as an appendix to a broader White House report on machine learning and artificial intelligence. A Task Force has been formed to complete this Plan.

The Networking and Information Technology Research and Development (NITRD) Program was established by the High-Performance Computing Act of 1991 with the overall objective of ensuring the United States' leadership in advanced computing. The NITRD Program is the Nation's primary source of federally funded work on advances in information technology (IT), computing, networking, and software.

Now in its 25th year, the NITRD Program consists of more than 23 federal agencies and is one of the oldest and largest of the formal Federal programs that engage in multi-agency coordination activities. The multi-agency NITRD Program seeks to provide the research and development (R&D) foundations for assuring continued U.S. technological leadership and meeting the needs of the Federal Government for advanced IT.

The NITRD Program also seeks to accelerate development and deployment of advanced IT in order to maintain world leadership in science and engineering, enhance national defense and homeland security, improve US productivity and competitiveness, protect the environment, and improve the health, education and quality of life for all Americans.



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