



Federal Networking and Information Technology R&D Program



(with PCAST UPDATE)

**Mark Luker, Assoc. Dir. NCO
for George Strawn, Director
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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)

Legislative Matters

- HPC Act of 1991, as amended by
 - Next Generation Internet Act of 1998, and
 - America COMPETES Act of 2007
- Central Provisions
 - Requires the President to establish NITRD
 - Requires the Director of OSTP to implement
 - Assigns specific functions to NITRD (e.g., coordination, prepare supplement to President's budget, etc.)

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 Agency Expenditures by Program Component Area FY10 in millions \$

	N S F	N I H	D O D	D A R P A	D O E/ S C	N S A	N A S A	N I S T	D H S	D O E/N S A	A H R Q	N O A A	E P A	N A R A	
HECia	325	309	258		277		59	17		9		23	3		1280
HCI/IM	270	213	100	174			16	14	4		27	1	3	5	826
HECrd	89	18	19	116	88	118	1	4		16					469
CSIA	73		90	145	4	29		30	38						407
LSN	121	17	106	95	44	3	1	6	8	1	1	2			405
SEW	100	35			6					4					145
HCSS	74	8	34			6	6	5							133
SDP	54	46	20				3	6				1			130
	1106	646	626	531	418	156	85	81	50	30	28	26	6	5	3795

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

NITRD Strategic Plan

- “We Compute”
- Trust and Confidence
- Cyber-ready Society

Cybersecurity Strategic Plan

- Trust Fabrics and Subspaces
- Dynamic Defense
- Economic Incentives

Digital Data IWG

- Harnessing the Power of Digital Data for Science and Society (Report to the Committee on Science of the NSTC, January 2009)
- “Create a comprehensive framework of transparent, evolvable, extensible policies and management and organizational structures that provide reliable, effective access to the full spectrum of public digital scientific data”

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Topic Recommendations

- Health IT R&D
- Energy and Transportation
- Cybersecurity
- “Fundamental Research Frontiers”
- Big Data
- Engineering large Software Systems
- Privacy
- Interoperable Interfaces
- NIT Supply Chain vulnerability

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Procedural Recommendations

- Create an Advisory Committee
- Include IT in K-12 STEM education
- Enhance NITRD coordination by adding more members
- Create a more detailed “Dashboard”
- Communicate NITRD priorities to OMB
- Redefine NITRD budget reporting categories

Increasing Calls for NITRD and Its Coordination

- NIT R&D, IST R&D?, Computing R&D?, Informatics R&D?
 - Whatever we call it, science and society depend on it more every year!
- Enhanced NIT R&D is critical
 - to fulfilling the promise of NIT for society
 - to enhancing American competitiveness
 - to furthering the missions of NITRD Agencies