

Federal Networking Council (FNC)

Briefing to the Presidential Advisory Committee

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www.fnc.gov

FNC Charter

Two-Fold Purpose:

... to provide a forum for networking collaborations among Federal agencies to meet their research, education, and operational mission goals.

... to bridge the gap between the advanced networking technologies being developed by research FNC agencies and the ultimate acquisition of mature versions of these technologies from the commercial sector. This helps build the NII, addresses Federal technology transition goals, and allows the operational experiences of the FNC to influence future Federal research agendas.

FNCAC Charter

The FNCAC is chartered as an NSF advisory committee to:

...advise the Federal Networking Council on policy and programmatic matters related to networking sponsored by the agencies that make up the FNC – HPCC programs and the NII are of particular interest.

...provide the FNC with technical, tactical, and strategic advice from the constituencies involved in the NREN program.

FNC Broad Goals

... To provide the CCIC with requirements, strategy, and plans with respect to interagency internetworking; e.g., privacy & security, metrics/statistics, integration & system management.

... To provide cross-agency fora for coordination of networking activities, advice on technical issues relating to networking, and development of reports and other documents with broad Federal networking implications.

FNC Specific Goals

- Increase collaborations among FNC R&E networks
- Transition DNS/Domain Addressing responsibility, e.g., long term plan for: .com, .net, .org; also .gov, .edu
- Promote interconnection of high performance nets
- Improve privacy & security awareness, technologies, and applications
- Continue efforts to enhance effectiveness/capabilities of the NII/GII
- Provide agency perspectives on selected regulatory issues, e.g., ACTA petition, Post FTS2000, trademarks & copyrights, etc.

FNC Overview

FNC Members	25+ Federal entities with R&E internetworking Meet ~9x/yr. Members: <i>DARPA, DISA, DOC/NTIA, DOE, DoED, EPA, GSA, NASA, NIH, NIST, NOAA, NSA, NRC, USAID, USGS</i>
FNCEC Membership	Agencies with Internetworking R&E Programs: meet ~10x/yr.
FNC Federal Participants	Other participating entities: <i>ARL, BRL, CIA, DLA, DOA, NCO, NCS, NSC, OMB, White House/EOP, & OSTP</i>
Working Groups	Engineering & Operations (EOWG), Privacy & Security (PSWG), Education (ED). Working groups consist of Federal staff with interest in the technical subjects.
FNCAC	24 industry/academia members with personal Membership expertise to networking – meet 2x/yr.

FNC Membership

FNC Co-Chair, George Strawn, NSF

FNC Executive Committee

George Strawn, NSF (Chair)

Hilarie Orman, DARPA

Executive Director, Walter Wiebe, NSF

Richard desJardins, NASA

Dan Hitchcock, DOE

DARPA	Hilarie Orman
DISA	Camillo Pasquariello
DOE	Dan Hitchcock
ED	Alexis Poliakoff
EPA	Bruce Almich
GSA	Henry Lai
NASA	Richard desJardins
NIH	Frank Hartel
NIST	Craig Hunt
NOAA	Fred Long
NSA	Bruce Bottomley
NTIA	Fred Lee
USAID	Ken Roko
USNRC	Pamela Kruzic
USGS	Elaine Stout

Privacy & Security Working Group

Co-Chairs	Stephen Squires	DARPA
	Dennis Steinauer	NIST

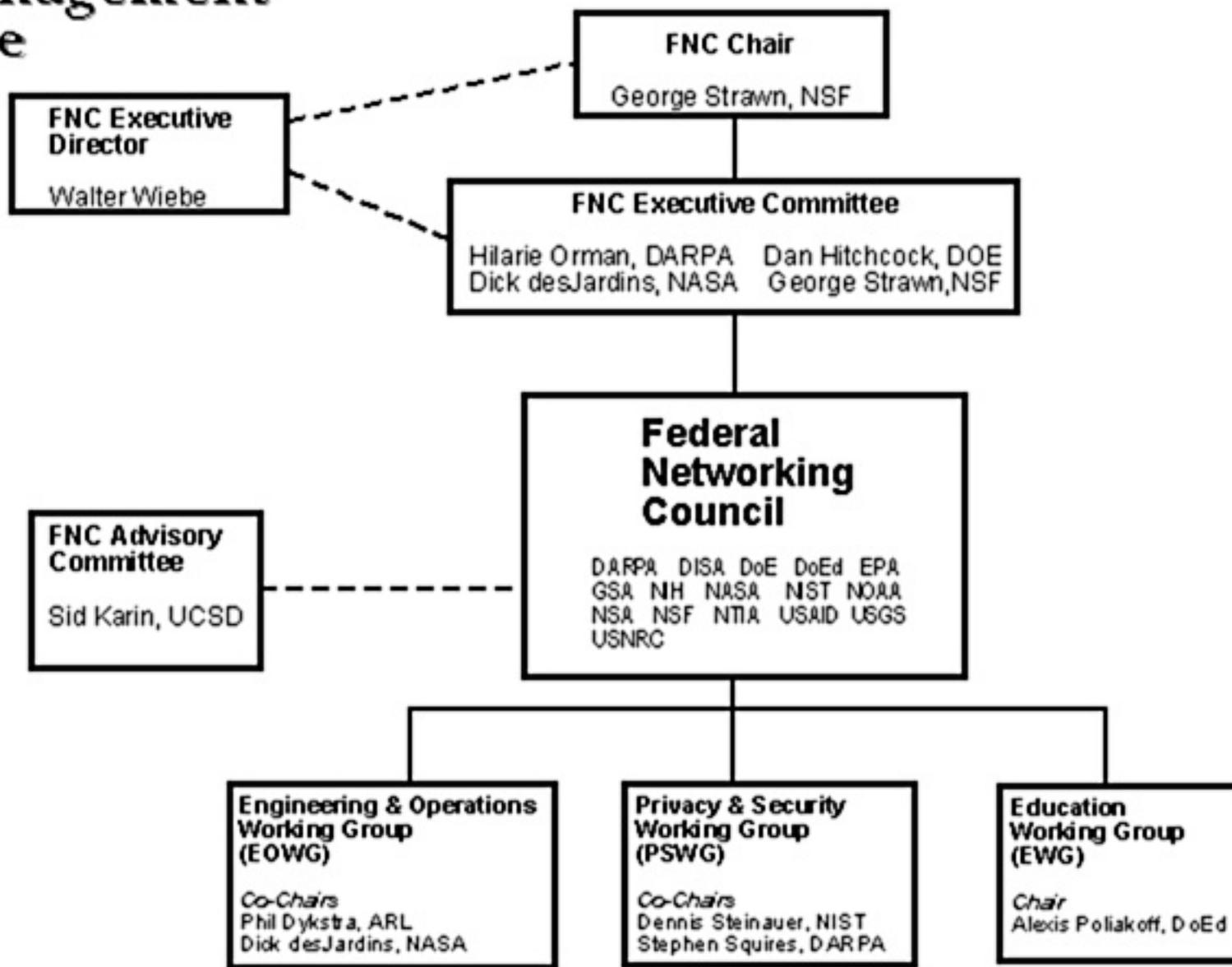
Engineering and Operations Working Group

Co-Chairs	Phillip Dykstra	DOD/ARL
	Richard desJardins	NASA

Education Working Group

Chair	Alexis T. Poliakoff	ED
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FNC Management Structure



FNC Areas of Work

FedNet Architecture

- peering & routing
- caching
- ATM addressing formats
- network data traffic statistics & metrics
- international connections & link-sharing
- quality of service
- multicast technologies

Policy

- .gov domain space
- internet domain name addressing & administration
- intellectual property & trademark
- telecommunications

Privacy & Security

- Federal/Commercial collaborations in internet privacy & security
- encryption
- key recovery

Education

- universal service provisions

FNC Ongoing Activities

Internet Privacy / Security

Collaborations in Internet Security (supported by Interagency Management Council/Government Information Technology Services via National Performance Review fund) -- CIS pilots underway related to Kerberos, PKI, secure web, Fortezza, secure email, digital signatures, privacy, advanced authentication, and intrusion.

Internet Transition – From strong Federal provisioning to commercial operation, recognizing government role as major user & responsibilities with respect to higher ed & research communities.

Statistics and Metrics – ad hoc working group established (5/96) to promote collaborations among Federal agencies and certain research institutions. Includes ARL, DARPA, DOE/SLAC, NCCOS, NLANR, and U. of Kansas (possibly NCSA and NASA). Focus is on collaborating – development of complementary measurement tools and deployment of measurement platforms across the Federal R&E network infrastructure.

Internet Caching – includes participation in NLANR Global Caching Hierarchy; FNC Cache established (5/96) for primary use by DoD agencies

International Networking -- FNC exploring int'l networking collaborations / connections both among member agencies and with high performance computing networks in Europe and Asia

Interconnection of Networks / Link Sharing – FNC agencies are participating in CAIRN effort (with “will carry” agreements being negotiated between the vBNS, Esnet, & NSI) & in sharing international links, such as the DARPA/NASA T1/E1 to Europe.

Global Interoperability for Broadband Networks (GIBN) – FNC asked for recommendations on appropriate domestic architecture to support the GIBN

MBONE – Collaborations between the High Performance Computing Modernization Office (HPCMO) and the National Laboratory for Applied Networking Research (NLANR) re MBONE servers, architecture, and visualization efforts. Offers for MBONE link sharing extended to FNC agencies.

FNC Accomplishments Over the Last Year

- Collaborations in Internet Security Workshop held in Oak Ridge, TN (2/97)
- Federal Internet Security & Privacy Workshop Report released (1/97)
- Workshop on ATM Addressing for FedNets hosted by the EOWG (1/97)
- CCIRN working group meetings on Performance Measurements, Caching, Mbone, and Internet Security held in conjunction with the IETF meeting in San Jose (12/96)
- FNC named a member to the 11 member panel of the Ad Hoc Committee to specify & implement policies related to top level Domains on the Internet (11/96)
- Collaborations in Internet Security Workshop held in DC (11/96)
- FNCAC meeting resulted in 12 action items (10/96)
- FNCAC issued recommendations on Internet II/Next Generation Internet Initiative, Domain Name Service, Intellectual Property & Databases, and Statistics & Metrics (10/96)
- The EOWG of the FNC assisted in consolidating the peering of FedNets at FIX-West, and is working to develop a DC Fix for R&E Community/FedNets (10/96)
- Internet Transition: FNC facilitated transition from strong Federal provisioning to commercial operation (9/96)
- Establishment of a taskforce to explore management of .gov issues (7/96)
- Security and Privacy track of the 1996 Federal Webmasters Conference (8/96)

- Federal Internet Security & Privacy Workshop held in Boston (5/96)
- FNC Issued Position Statement on ACTA Petition to FCC (5/96)
- FNCAC issued Recommendations to FNC on Copyrights and Stats/Metrics (5/96)
- Ad Hoc Statistics/Metrics Working Group Formed (5/96)
- Sparc 670 Server installed at ARL to support FNC Caching and Security Collabs (5/96)
- FNCAC meeting resulted in 17 action items (4/96)
- Harvest Search Engine being installed on FNC public server at ISI (3/96)
- High Performance Information Infrastructure task group initiated (3/96)
- FNC presented Statistics/Metrics Position Paper at NSF-Supported Internet Stats/Metrics Workshop (2/96)
- FNC Awarded NPR Innovation Grant to support its Collaborations in Internet Security (CIS) Project (2/96)
- FEFG Proposal for Federal Networks Transition Plan Issued (1/96)

Federal Networking Council

For more information:

Federal Networking Council
<http://www.fnc.gov>

FNC Members
http://www.fnc.gov/FNC_Members.html

FNC Advisory Committee
<http://www.fnc.gov/FNCAC.html>

FNCAC Meeting Minutes
http://www.fnc.gov/FNCAC_10_96_minutes.html

FNCAC 1997 Workplan
http://www.fnc.gov/FNCAC_workplan.html