

service is extended by the President. The President shall designate two co-chairs from among the members of the Committee. A co-chair may serve for a term of 2 years or until the end of his or her service as a member of the Committee, whichever is the shorter period.

SEC. 2. Functions. (a) The Committee shall provide the National Science and Technology Council (NSTC), through the Director of the Office of Science and Technology Policy (“Director”), with advice and information on high-performance computing and communications, information technology, and the Next Generation Internet. The Committee shall provide an independent assessment of:

- (1) progress made in implementing the High-Performance Computing and Communications (HPCC) Program;
- (2) progress in designing and implementing the Next Generation Internet initiative;
- (3) the need to revise the HPCC Program;
- (4) balance among components of the HPCC Program;
- (5) whether the research and development undertaken pursuant to the HPCC Program is helping to maintain United States leadership in advanced computing and communications technologies and their applications; and
- (6) other issues as specified by the Director.

(b) The Committee shall carry out its responsibilities under the Research Act in the manner described in the Research Act.

SEC. 3. Administration. To the extent permitted by law and subject to the availability of appropriations, the Department of Defense shall provide the financial and administrative support for the Committee. Further, the Director of the National Coordination Office for Computing Information, and Communications (“Director of the NCO”) shall provide such coordination and technical assistance to the Committee as the co-chairs of the Committee may request.

(a) The heads of executive agencies shall, to the extent permitted by law, provide to the Committee such information as it may require for the purpose of carrying out its functions.

(b) The co-chairs may, from time to time, invite experts to submit information to the Committee and may form subcommittees or working groups within the Committee to review specific issues.

(c) Members of the Committee shall serve without compensation but shall be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law for persons serving intermittently in the Government service (5 U.S.C. 5701–5707).

SEC. 4. General. (a) Notwithstanding any other Executive order, the functions of the President under the Federal Advisory Committee Act, as amended [see 5 U.S.C. 1001 et seq.], except that of reporting to the Congress, that are applicable to the Committee shall be performed by the Director of the NCO in accordance with guidelines that have been issued by the Administrator of General Services.

(b) The Committee shall terminate June 1, 2005, unless extended by the President prior to such date.

§ 5512. Grand Challenges in areas of national importance

(a) In general

The Program shall encourage the participating agencies to support foundational, large-scale, long-term, interdisciplinary, and inter-agency information technology research and development activities in networking and information technology directed toward agency mission areas that have the potential for significant contributions to national economic competitiveness and for other significant societal benefits. Such activities, ranging from basic research to the demonstration of technical solutions, shall be designed to advance the development of fundamental discoveries. The advisory committee

established under section 5511(b) of this title shall make recommendations to the Program for candidate research and development areas for support under this section.

(b) Characteristics

(1) In general

Research and development activities under this section shall—

(A) include projects selected on the basis of applications for support through a competitive, merit-based process;

(B) to the extent practicable, involve collaborations among researchers in institutions of higher education and industry, and may involve nonprofit research institutions and Federal laboratories, as appropriate;

(C) to the extent practicable, leverage Federal investments through collaboration with related State and private sector initiatives; and

(D) include a plan for fostering the transfer of research discoveries and the results of technology demonstration activities, including from institutions of higher education and Federal laboratories, to industry for commercial development.

(2) Cost-sharing

In selecting applications for support, the agencies may give special consideration to projects that include cost sharing from non-Federal sources.

(Pub. L. 102–194, title I, §102, as added Pub. L. 114–329, title I, §105(i), Jan. 6, 2017, 130 Stat. 2982.)

Editorial Notes

PRIOR PROVISIONS

A prior section 5512, Pub. L. 102–194, title I, §102, Dec. 9, 1991, 105 Stat. 1598, related to the National Research and Education Network, prior to repeal by Pub. L. 114–329, title I, §105(g), Jan. 6, 2017, 130 Stat. 2982.

§ 5513. Repealed. Pub. L. 114–329, title I, § 105(h), Jan. 6, 2017, 130 Stat. 2982

Section, Pub. L. 102–194, title I, §103, as added Pub. L. 105–305, § 5, Oct. 28, 1998, 112 Stat. 2921; amended Pub. L. 106–65, div. A, title X, §1067(20), Oct. 5, 1999, 113 Stat. 775, related to the Next Generation Internet program.

SUBCHAPTER II—AGENCY ACTIVITIES

§ 5521. National Science Foundation activities

As part of the Program described in subchapter I—

(1) the National Science Foundation shall provide high-end computing and networking infrastructure support for all science and engineering disciplines, and support basic research and human resource development in all aspects of networking and information technology; and

(2) the National Science Foundation shall use its existing programs, in collaboration with other agencies, as appropriate, to improve the teaching and learning of networking and information technology at all levels of education and to increase participation in networking and information technology fields, in-

cluding by individuals identified in sections 1885a and 1885b of title 42.

(Pub. L. 102-194, title II, §201, Dec. 9, 1991, 105 Stat. 1599; Pub. L. 114-329, title I, §105(j), Jan. 6, 2017, 130 Stat. 2983.)

Editorial Notes

AMENDMENTS

2017—Pub. L. 114-329, §105(j)(1)(A), (2), struck out subsec. (a) designation and heading “General responsibilities” and struck out subsec. (b) which authorized appropriations for fiscal years 1992 to 1996.

Par. (1). Pub. L. 114-329, §105(j)(1)(B), inserted “high-end” after “National Science Foundation shall provide” and substituted “networking and information technology; and” for “high-performance computing and advanced high-speed computer networking;”.

Par. (2). Pub. L. 114-329, §105(j)(1)(C), (D), added par. (2) and struck out former par. (2) which read as follows: “to the extent that colleges, universities, and libraries cannot connect to the Network with the assistance of the private sector, the National Science Foundation shall have primary responsibility for assisting colleges, universities, and libraries to connect to the Network;”.

Pars. (3), (4). Pub. L. 114-329, §105(j)(1)(C), struck out pars. (3) and (4) which read as follows:

“(3) the National Science Foundation shall serve as the primary source of information on access to and use of the Network; and

“(4) the National Science Foundation shall upgrade the National Science Foundation funded network, assist regional networks to upgrade their capabilities, and provide other Federal departments and agencies the opportunity to connect to the National Science Foundation funded network.”

§ 5522. National Aeronautics and Space Administration activities

As part of the Program described in subchapter I, the National Aeronautics and Space Administration shall conduct basic and applied research in networking and information technology, particularly in the field of computational science, with emphasis on aerospace sciences, earth and space sciences, and remote exploration and experimentation.

(Pub. L. 102-194, title II, §202, Dec. 9, 1991, 105 Stat. 1600; Pub. L. 114-329, title I, §105(k), Jan. 6, 2017, 130 Stat. 2983.)

Editorial Notes

AMENDMENTS

2017—Pub. L. 114-329 struck out subsec. (a) designation and heading “General responsibilities”, substituted “networking and information technology” for “high-performance computing”, and struck out subsec. (b) which authorized appropriations for fiscal years 1992 to 1996.

§ 5523. Department of Energy activities

As part of the Program described in subchapter I, the Secretary of Energy shall—

(1) conduct and support basic and applied research in networking and information technology to support fundamental research in science and engineering disciplines related to energy applications; and

(2) provide computing and networking infrastructure support, including—

(A) the provision of high-end computing systems that are among the most advanced

in the world in terms of performance in solving scientific and engineering problems; and

(B) support for advanced software and applications development for science and engineering disciplines related to energy applications.

(Pub. L. 102-194, title II, §203, Dec. 9, 1991, 105 Stat. 1600; Pub. L. 104-66, title I, §1052(j), Dec. 21, 1995, 109 Stat. 719; Pub. L. 109-58, title IX, §976(b), Aug. 8, 2005, 119 Stat. 903; Pub. L. 114-329, title I, §105(l), Jan. 6, 2017, 130 Stat. 2984.)

Editorial Notes

AMENDMENTS

2017—Pub. L. 114-329, §105(l)(1), (4), struck out subsec. (a) designation and heading “General responsibilities” and struck out subsec. (b) which authorized to be appropriated to the Secretary of Energy such sums as necessary to carry out this section.

Par. (1). Pub. L. 114-329, §105(l)(2), substituted “networking and information technology” for “high-performance computing and networking”.

Par. (2)(A). Pub. L. 114-329, §105(l)(3), substituted “high-end” for “high-performance”.

2005—Pub. L. 109-58 reenacted section catchline without change and amended text generally, substituting provisions relating to general responsibilities and authorization of appropriations for provisions relating to general responsibilities, establishment of High-Performance Computing Research and Development Collaborative Consortia, transfer of technology to private sector and others, reports on activities, and authorization of appropriations.

1995—Subsec. (d). Pub. L. 104-66 amended heading and text of subsec. (d) generally. Prior to amendment, text read as follows: “Within one year after December 9, 1991, and every year thereafter, the Secretary of Energy shall transmit to the Congress a report on activities taken to carry out this chapter.”

§ 5524. Department of Commerce activities

(a) General responsibilities

As part of the Program described in subchapter I—

(1) the National Institute of Standards and Technology shall—

(A) conduct basic and applied measurement research needed to support various networking and information technology systems and capabilities;

(B) develop and propose standards and guidelines, and develop measurement techniques and test methods, for the interoperability and usability of networking and information technology systems; and

(C) be responsible for developing benchmark tests and standards for networking and information technology systems and software; and

(2) the National Oceanic and Atmospheric Administration shall conduct basic and applied research in weather prediction and ocean sciences, particularly in development of new forecast models, in computational fluid dynamics, and in the incorporation of evolving computer architectures and networks into the systems that carry out agency missions.

(b) Networking and information technology security

The National Institute of Standards and Technology shall be responsible for developing and