within the executive branch. The Executive Council will include representatives from agencies with roles and responsibilities as identified in this order.

(b) The Executive Council shall coordinate and collaborate with the National Science and Technology Council established by Executive Order 12881 of November 23, 1993, and its subordinate entities as appropriate to ensure that HPC efforts across the Federal Government are aligned with the NSCI. The Executive Council shall also consult with representatives from other agencies as it determines necessary. The Executive Council may create additional task forces as needed to ensure accountability and coordination.

(c) The Executive Council shall meet regularly to assess the status of efforts to implement this order. The Executive Council shall meet no less often than twice yearly in the first year after issuance of this order. The Executive Council may revise the meeting frequency as needed thereafter. In the event the Executive Council is unable to reach consensus, the Co-Chairs will be responsible for documenting issues and potential resolutions through a process led by OSTP and OMB.

(d) The Executive Council will encourage agencies to collaborate with the private sector as appropriate. The Executive Council may seek advice from the President's Council of Advisors on Science and Technology through the Assistant to the President for Science and Technology and may interact with other private sector groups consistent with the Federal Advisory Committee Act.

SEC. 5. *Implementation.* (a) The Executive Council shall, within 90 days of the date of this order, establish an implementation plan to support and align efforts across agencies in support of the NSCI objectives. Annually thereafter for 5 years, the Executive Council shall update the implementation plan as required and document the progress made in implementing the plan, engaging with the private sector, and taking actions to implement this order. After 5 years, updates to the implementation plan may be requested at the discretion of the Co-Chairs.

(b) The Co-Chairs shall prepare a report each year until 5 years from the date of this order on the status of the NSCI for the President. After 5 years, reports may be prepared at the discretion of the Co-Chairs.

SEC. 6. *Definitions.* For the purposes of this order:

The term "high-performance computing" refers to systems that, through a combination of processing capability and storage capacity, can solve computational problems that are beyond the capability of small- to medium-scale systems.

The term "petaflop" refers to the ability to perform one quadrillion arithmetic operations per second.

The term "exascale computing system" refers to a system operating at one thousand petaflops.

SEC. 7. *General Provisions.* (a) Nothing in this order shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department, agency, or the head thereof; or

(ii) the functions of the Director of OMB relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

BARACK OBAMA.

§ 5502. Purposes

The purposes of this chapter are to help ensure the continued leadership of the United States in networking and information technology and its applications by—

(1) supporting Federal research, development, and application of networking and information technology in order to—

(A) expand the number of researchers, educators, and students with training in networking and information technology and access to networking and information technology resources;

(B) promote the further development of an information infrastructure of data bases, services, access mechanisms, and research facilities available for use through the Internet;

(C) stimulate research on and promote more rapid development of high-end computing systems software and applications software;

(D) accelerate the development of high-end computing systems and subsystems;

(E) provide for the application of networking and information technology to Grand Challenges;

(F) invest in basic research and education, and promote the inclusion of networking and information technology into educational institutions at all levels; and

(G) promote greater collaboration among government, Federal laboratories, industry, high-end computing centers, and universities;

(2) improving the interagency planning and coordination of Federal research and development on networking and information technology and maximizing the effectiveness of the Federal Government's networking and information technology research and development programs;

(3) promoting the more rapid development and wider distribution of networking management and development tools; and

(4) promoting the rapid adoption of open network standards.

(Pub. L. 102–194, §3, Dec. 9, 1991, 105 Stat. 1594; Pub. L. 105–305, §3(b), Oct. 28, 1998, 112 Stat. 2920; Pub. L. 114–329, title I, §105(c), Jan. 6, 2017, 130 Stat. 2976.)

end'' for ''high-performance''. Former subpar. (G) redesignated (F).

Par. (2). Pub. L. 114–329, §105(c)(3), substituted ''networking and information technology and'' for ''high-performance computing and'' and ''networking and information technology'' for ''high-performance computing network''.

1998—Pub. L. 105–305, §3(b)(1), substituted ''Purposes'' for ''Purpose'' as section catchline.

Pub. L. 105–305, §3(b)(2), substituted ''purposes of this chapter are'' for ''purpose of this chapter is'' in introductory provisions.

Par. (1)(A). Pub. L. 105–305, §3(b)(3), redesignated subpar. (B) as (A) and struck out former subpar. (A) which read as follows: ''establish a high-capacity and high-speed National Research and Education Network;''.

Par. (1)(B). Pub. L. 105–305, §3(b)(3), (4), redesignated subpar. (C) as (B) and substituted ''Internet'' for ''Network''. Former subpar. (B) redesignated (A).

Par. (1)(C) to (I). Pub. L. 105–305, §3(b)(3), (5), redesignated subpars. (D) to (I) as (C) to (H), respectively, and struck out ''and'' at end of par. (H).

Par. (2). Pub. L. 105–305, §3(b)(6), substituted ''network research and development programs;'' for ''efforts.''

Pars. (3), (4). Pub. L. 105–305, §3(b)(7), added pars. (3) and (4).

§ 5503. Definitions

As used in this chapter, the term—

(1) ''cyber-physical systems'' means physical or engineered systems whose networking and information technology functions and physical elements are deeply integrated and are actively connected to the physical world through sensors, actuators, or other means to enable safe and effective, real-time performance in safety-critical and other applications;

(2) ''Director'' means the Director of the Office of Science and Technology Policy;

(3) ''Grand Challenge'' means a fundamental problem in science or engineering, with broad economic and scientific impact, whose solution will require the application of networking and information technology resources and multidisciplinary teams of researchers;

(4) ''high-end computing'' means the most advanced and capable computing systems, including their hardware, storage, networking and software, encompassing both massive computational capability and large-scale data analytics to solve computational problems of national importance that are beyond the capability of small- to medium-scale systems, including computing formerly known as high-performance computing;

(5) ''Internet'' means the international computer network of both Federal and non-Federal interoperable data networks;

(6) ''networking and information technology'' means high-end computing, communications, and information technologies, high-capacity and high-speed networks, special purpose and experimental systems, high-end computing systems software and applications software, and the management of large data sets;

(7) ''participating agency'' means an agency described in section 5511(a)(3)(C) of this title;

(8) ''Program'' means the Networking and Information Technology Research and Development Program described in section 5511 of this title; and

(9) ''Program Component Areas'' means the major subject areas under which related individual projects and activities carried out under the Program are grouped.

(Pub. L. 102–194, §4, Dec. 9, 1991, 105 Stat. 1595; Pub. L. 105–305, §7(b), Oct. 28, 1998, 112 Stat. 2924; Pub. L. 110–69, title VII, §7024(a)(2), Aug. 9, 2007, 121 Stat. 689; Pub. L. 114–329, title I, §105(d), Jan. 6, 2017, 130 Stat. 2977.)

SUBCHAPTER I—NETWORKING AND INFORMATION TECHNOLOGY RESEARCH AND DEVELOPMENT

§ 5511. Networking and Information Technology Research and Development Program

(a) Networking and Information Technology research and development

(1) The President shall implement a Networking and Information Technology Research and Development Program, which shall—

(A) provide for long-term basic and applied research on networking and information technology;