

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.)

Editorial Notes

AMENDMENTS

2017—Pub. L. 114–329, § 105(c)(1), substituted “networking and information technology” for “high-performance computing” in introductory provisions.

Par. (1). Pub. L. 114–329, § 105(c)(2)(A), substituted “supporting Federal research, development, and application of networking and information technology” for “expanding Federal support for research, development, and application of high-performance computing” in introductory provisions.

Par. (1)(A). Pub. L. 114–329, § 105(c)(2)(B), substituted “networking and information technology” for “high-performance computing” in two places.

Par. (1)(C). Pub. L. 114–329, § 105(c)(2)(C), (D), added subpar. (C) and struck out former subpar. (C) which read as follows: “stimulate research on software technology;”.

Par. (1)(D). Pub. L. 114–329, § 105(c)(2)(C), (E), (F), redesignated subpar. (E) as (D), inserted “high-end” after “the development of”, and struck out former subpar. (D) which read as follows: “promote the more rapid development and wider distribution of computing software tools and applications software;”.

Par. (1)(E), (F). Pub. L. 114–329, § 105(c)(2)(E), (G), redesignated subpars. (F) and (G) as (E) and (F), respectively, and substituted “networking and information technology” for “high-performance computing”. Former subpar. (E) redesignated (D).

Par. (1)(G), (H). Pub. L. 114–329, § 105(c)(2)(E), (H), redesignated subpar. (H) as (G) and substituted “high-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;