

Internet in rural or other locations, attributable to the distance of the user from network facilities, the low population density of the area in which the user is located, or other factors, that are disproportionately greater than the costs imposed on users in locations closer to such facilities or on users in locations with significantly greater population density.

“(2) INTERNET.—The term ‘Internet’ means the international computer network of both Federal and non-Federal interoperable packet switched data networks.”

§ 5502. Purposes

The purposes of this chapter are to help ensure the continued leadership of the United States in high-performance computing and its applications by—

(1) expanding Federal support for research, development, and application of high-performance computing in order to—

(A) expand the number of researchers, educators, and students with training in high-performance computing and access to high-performance computing 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 software technology;

(D) promote the more rapid development and wider distribution of computing software tools and applications software;

(E) accelerate the development of computing systems and subsystems;

(F) provide for the application of high-performance computing to Grand Challenges;

(G) invest in basic research and education, and promote the inclusion of high-performance computing into educational institutions at all levels; and

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

(2) improving the interagency planning and coordination of Federal research and development on high-performance computing and maximizing the effectiveness of the Federal Government’s high-performance computing network 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.)

AMENDMENTS

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.”

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

§ 5503. Definitions

As used in this chapter, the term—

(1) “Director” means the Director of the Office of Science and Technology Policy;

(2) “Grand Challenge” means a fundamental problem in science or engineering, with broad economic and scientific impact, whose solution will require the application of high-performance computing resources and multidisciplinary teams of researchers;

(3) “high-performance computing” means advanced computing, communications, and information technologies, including supercomputer systems, high-capacity and high-speed networks, special purpose and experimental systems, applications and systems software, and the management of large data sets;

(4) “Internet” means the international computer network of both Federal and non-Federal interoperable data networks;

(5) “Network” means a computer network referred to as the National Research and Education Network established under section 5512 of this title;

(6) “Program” means the National High-Performance Computing Program described in section 5511 of this title; and

(7) “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.)

AMENDMENTS

2007—Par. (2). Pub. L. 110–69, § 7024(a)(2)(A), inserted “and multidisciplinary teams of researchers” after “high-performance computing resources”.

Par. (3). Pub. L. 110–69, § 7024(a)(2)(B), struck out “scientific workstations,” after “technologies, including” and “(including vector supercomputers and large scale parallel systems)” after “supercomputer systems”, substituted “applications” for “and applications”, and inserted “, and the management of large data sets” after “systems software”.

Par. (4). Pub. L. 110–69, § 7024(a)(2)(C), struck out “packet switched” before “data networks”.

Par. (7). Pub. L. 110–69, § 7024(a)(2)(D)–(F), added par. (7).

1998—Pars. (4) to (6). Pub. L. 105–305 added par. (4) and redesignated former pars. (4) and (5) as (5) and (6), respectively.

SUBCHAPTER I—HIGH-PERFORMANCE COMPUTING RESEARCH AND DEVELOPMENT

§ 5511. National High-Performance Computing Program

(a) National High-Performance Computing Program

(1) The President shall implement a National High-Performance Computing Program, which shall—