(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.)

§ 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.)

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—

(A) provide for long-term basic and applied research on high-performance computing, including networking;

(B) provide for research and development on, and demonstration of, technologies to advance the capacity and capabilities of high-performance computing and networking systems, and related software;

(C) provide for sustained access by the research community throughout the United States to high-performance computing and networking systems that are among the most advanced in the world in terms of performance in solving scientific and engineering problems, including provision for technical support for users of such systems;

(D) provide for widely dispersed efforts to increase software availability, productivity, capability, security, portability, and reliability;

(E) provide for high-performance networks, including experimental testbed networks, to enable research and development on, and demonstration of, advanced applications enabled by such networks;

(F) provide for computational science and engineering research on mathematical modeling and algorithms for applications in all fields of science and engineering;

(G) provide for the technical support of, and research and development on, high-performance computing systems and software required to address Grand Challenges;

(H) provide for educating and training additional undergraduate and graduate students in