

105TH CONGRESS
2^D SESSION

S. 1609

IN THE HOUSE OF REPRESENTATIVES

OCTOBER 21, 1998

Referred to the Committee on Science

AN ACT

To amend the High-Performance Computing Act of 1991 to authorize appropriations for fiscal years 1999 and 2000 for the Next Generation Internet program, to require the Advisory Committee on High-Performance Computing and Communications, Information Technology, and the Next Generation Internet to monitor and give advice concerning the development and implementation of the Next Generation Internet program and report to the President and the Congress on its activities, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Next Generation Inter-
5 net Research Act of 1998”.

1 **SEC. 2. DEFINITIONS.**

2 (a) **TERMS USED IN THIS ACT.**—For purposes of
3 this Act—

4 (1) **INTERNET.**—The term “Internet” has the
5 meaning given such term by section 230(e)(1) of the
6 Communications Act of 1934 (47 U.S.C. 230(e)(1)).

7 (2) **GEOGRAPHIC PENALTY.**—The term “geo-
8 graphic penalty” means the imposition of costs on
9 users of the Internet in rural or other locations at-
10 tributable to the distance of the user from network
11 facilities, the low population density of the area in
12 which the user is located, or other factors, that are
13 disproportionately greater than the costs imposed on
14 users in locations closer to such facilities or on users
15 in locations with significantly greater population
16 density.

17 (b) **DEFINITION OF NETWORK IN HIGH-PERFORM-**
18 **ANCE COMPUTING ACT OF 1991.**—Paragraph (4) of sec-
19 tion 4 of the High-Performance Computing Act of 1991
20 (15 U.S.C. 5503) is amended by striking “network re-
21 ferred to as the National Research and Education Net-
22 work established under section 102; and” and inserting
23 “network, including advanced computer networks of Fed-
24 eral agencies and departments; and”.

25 **SEC. 3. FINDINGS.**

26 (a) **IN GENERAL.**—The Congress finds that—

1 (1) United States leadership in science and
2 technology has been vital to the Nation's prosperity,
3 national and economic security, and international
4 competitiveness, and there is every reason to believe
5 that maintaining this tradition will lead to long-term
6 continuation of United States strategic advantages
7 in information technology;

8 (2) the United States' investment in science
9 and technology has yielded a scientific and engineer-
10 ing enterprise without peer, and that Federal invest-
11 ment in research is critical to the maintenance of
12 United States leadership;

13 (3) previous Federal investment in computer
14 networking technology and related fields has resulted
15 in the creation of new industries and new jobs in the
16 United States;

17 (4) the Internet is playing an increasingly im-
18 portant role in keeping citizens informed of the ac-
19 tions of their government; and

20 (5) continued inter-agency cooperation is nec-
21 essary to avoid wasteful duplication in Federal net-
22 working research and development programs.

23 (b) ADDITIONAL FINDINGS FOR THE 1991 ACT.—
24 Section 2 of the High-Performance Computing Act of
25 1991 (15 U.S.C. 5501) is amended by—

1 (1) striking paragraph (4) and inserting the fol-
2 lowing:

3 “(4) A high-capacity, flexible, high-speed na-
4 tional research and education computer network is
5 needed to provide researchers and educators with ac-
6 cess to computational and information resources, act
7 as a test bed for further research and development
8 for high-capacity and high-speed computer networks,
9 and provide researchers the necessary vehicle for
10 continued network technology improvement through
11 research.”; and

12 (2) adding at the end thereof the following:

13 “(7) Additional research must be undertaken to
14 lay the foundation for the development of new appli-
15 cations that can result in economic growth, improved
16 health care, and improved educational opportunities.

17 “(8) Research in new networking technologies
18 holds the promise of easing the economic burdens of
19 information access disproportionately borne by rural
20 users of the Internet.

21 “(9) Information security is an important part
22 of computing, information, and communications sys-
23 tems and applications, and research into security ar-
24 chitectures is a critical aspect of computing, infor-
25 mation, and communications research programs.”.

1 **SEC. 4. PURPOSES.**

2 (a) IN GENERAL.—The purposes of this Act are—

3 (1) to serve as the first authorization in a series
4 of computing, information, and communication tech-
5 nology initiatives outlines in the High-Performance
6 Computing Act of 1991 (15 U.S.C. 5501 et seq.)
7 that will include research programs related to—

8 (A) high-end computing and computation;

9 (B) human-centered systems;

10 (C) high confidence systems; and

11 (D) education, training, and human re-
12 sources; and

13 (2) to provide for the development and coordi-
14 nation of a comprehensive and integrated United
15 States research program which will—

16 (A) focus on the research and development
17 of a coordinated set of technologies that seeks
18 to create a network infrastructure that can sup-
19 port greater speed, robustness, and flexibility
20 than is currently available and promote
21 connectivity and interoperability among ad-
22 vanced computer networks of Federal agencies
23 and departments;

24 (B) focus on research in technology that
25 may result in high-speed data access for users

1 that is both economically viable and does not
2 impose a geographic penalty; and

3 (C) encourage researchers to pursue ap-
4 proaches to networking technology that lead to
5 maximally flexible and extensible solutions
6 wherever feasible.

7 (b) MODIFICATION OF PURPOSES OF THE 1991
8 ACT.—Section 3 of the High-Performance Computing Act
9 of 1991 (15 U.S.C. 5502) is amended by—

10 (1) striking the section caption and inserting
11 the following:

12 **“SEC. 3. PURPOSES.”;**

13 (2) striking “purpose of this Act is” and insert-
14 ing “purposes of this Act are”;

15 (3) striking “universities; and” in paragraph
16 (1)(I) and inserting “universities”;

17 (4) striking “efforts.” in paragraph (2) and in-
18 serting “network research and development pro-
19 grams;”; and

20 (5) adding at the end thereof the following:

21 “(3) promoting the further development of an
22 information infrastructure of information stores,
23 services, access mechanisms, and research facilities
24 available for use through the Internet;

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

4 “(5) promoting the rapid adoption of open net-
5 work standards.”.

6 **SEC. 5. DUTIES OF ADVISORY COMMITTEE.**

7 Title I of the High-Performance Computing Act of
8 1991 (15 U.S.C 5511 et seq.) is amended by adding at
9 the end thereof the following:

10 **“SEC. 103. ADVISORY COMMITTEE.**

11 “(a) IN GENERAL.—In addition to its functions
12 under Executive Order 13035 (62 F.R. 7231), the Advi-
13 sory Committee on High-Performance Computing and
14 Communications, Information Technology, and the Next
15 Generation Internet, established by Executive Order No.
16 13035 of February 11, 1997 (62 F.R. 7231) shall—

17 “(1) assess the extent to which the Next Gen-
18 eration Internet program—

19 “(A) carries out the purposes of this Act;

20 “(B) addresses concerns relating to, among
21 other matters—

22 “(i) geographic penalties (as defined
23 in section 2(2) of the Next Generation
24 Internet Research Act of 1998); and

1 “(ii) technology transfer to and from
2 the private sector; and

3 “(2) assess the extent to which—

4 “(A) the role of each Federal agency and
5 department involved in implementing the Next
6 Generation Internet program is clear, com-
7 plementary to and non-duplicative of the roles
8 of other participating agencies and depart-
9 ments; and

10 “(B) each such agency and department
11 concur with the rule of each other participat-
12 ing agency or department.

13 “(b) REPORTS.—The Advisory Committee shall as-
14 sess implementation of the Next Generation Internet ini-
15 tiative and report, not less frequently than annually, to
16 the President, the United States Senate Committee on
17 Commerce, Science, and Transportation, and the United
18 States House of Representatives Committee on Science on
19 its findings for the preceding fiscal year. The first such
20 report shall be submitted 6 months after the date of enact-
21 ment of the Next Generation Internet Research Act of
22 1998 the last report shall be submitted by September 30,
23 2000.”.

1 **SEC. 6. AUTHORIZATION OF APPROPRIATIONS.**

2 Title I of the High-Performance Computing Act of
 3 1991 (15 U.S.C 5511 et seq.), as amended by section 5
 4 of this Act, is amended by adding at the end thereof the
 5 following:

6 **“SEC. 104. AUTHORIZATION OF APPROPRIATIONS.**

7 “There are authorized to be appropriated for the pur-
 8 pose of carrying out the Next Generation Internet pro-
 9 gram the following amounts:

“Agency	FY 1999	FY 2000
“Department of Defense	\$40,000,000	\$42,500,000
“Department of Energy	\$20,000,000	\$25,000,000
“National Science Foundation	\$25,000,000	\$25,000,000
“National Institutes of Health	\$5,000,000	\$7,500,000
“National Aeronautics and Space Administra- tion	\$10,000,000	\$10,000,000
“National Institute of Standards and Tech- nology	\$5,000,000	\$7,500,000.

10 The amount authorized for the Department of Defense for
 11 fiscal year 1999 under this section shall be the amount
 12 authorized pursuant to the National Defense Authoriza-
 13 tion Act for Fiscal Year 1999.”.

14 **SEC. 7. STUDY OF EFFECTS ON TRADEMARKS AND INTEL-**
 15 **LECTUAL PROPERTY RIGHTS OF ADDING GE-**
 16 **NERIC TOP-LEVEL DOMAINS.**

17 (a) STUDY BY NATIONAL RESEARCH COUNCIL.—Not
 18 later than 60 days after the date of enactment of this Act,
 19 the Secretary of Commerce shall request the National Re-

1 search Council of the National Academy of Sciences to
2 conduct a comprehensive study, taking into account the
3 diverse needs of domestic and international Internet users,
4 of the short-term and long-term effects on trademark and
5 intellectual property rights holders of adding new generic
6 top-level domains and related dispute resolution proce-
7 dures.

8 (b) MATTERS TO BE ASSESSED IN STUDY.—The
9 study shall assess and, as appropriate, make recommenda-
10 tions for policy, practice, or legislative changes relating
11 to—

12 (1) the short-term and long-term effects on the
13 protection of trademark and intellectual property
14 rights and consumer interests of increasing or de-
15 creasing the number of generic top-level domains;

16 (2) trademark and intellectual property rights
17 clearance processes for domain names, including—

18 (A) whether domain name databases
19 should be readily searchable through a common
20 interface to facilitate the clearing of trademarks
21 and intellectual property rights and proposed
22 domain names across a range of generic top-
23 level domains;

24 (B) the identification of what information
25 from domain name databases should be acces-

1 sible for the clearing of trademarks and intellec-
2 tual property rights; and

3 (C) whether generic top-level domain reg-
4 istrants should be required to provide certain
5 information;

6 (3) domain name trademark and intellectual
7 property rights dispute resolution mechanisms, in-
8 cluding how to—

9 (A) reduce trademark and intellectual
10 property rights conflicts associated with the ad-
11 dition of any new generic top-level domains; and

12 (B) reduce trademark and intellectual
13 property rights conflicts through new technical
14 approaches to Internet addressing;

15 (4) choice of law or jurisdiction for resolution
16 of trademark and intellectual property rights dis-
17 putes relating to domain names, including which ju-
18 risdictions should be available for trademark and in-
19 tellectual property rights owners to file suit to pro-
20 tect such trademarks and intellectual property
21 rights;

22 (5) trademark and intellectual property rights
23 infringement liability for registrars, registries, or
24 technical management bodies; and

1 (6) short-term and long-term technical and poli-
2 icy options for Internet addressing schemes and the
3 impact of such options on current trademark and in-
4 tellectual property rights issues.

5 (c) COOPERATION WITH STUDY.—

6 (1) INTERAGENCY COOPERATION.—The Sec-
7 retary of Commerce shall—

8 (A) direct the Patent and Trademark Of-
9 fice, the National Telecommunications and In-
10 formation Administration, and other Depart-
11 ment of Commerce entities to cooperate fully
12 with the National Research Council in its activi-
13 ties in carrying out the study under this sec-
14 tion; and

15 (B) request all other appropriate Federal
16 departments, Federal agencies, Government
17 contractors, and similar entities to provide simi-
18 lar cooperation to the National Research Coun-
19 cil.

20 (2) PRIVATE CORPORATION COOPERATION.—

21 The Secretary of Commerce shall request that any
22 private, not-for-profit corporation established to
23 manage the Internet root server system and the top-
24 level domain names provide similar cooperation to
25 the National Research Council.

1 (d) REPORT.—

2 (1) IN GENERAL.—Not later than 12 months
3 after the date of enactment of this Act, the National
4 Research Council shall complete the study under this
5 section and submit a report on the study to the Sec-
6 retary of Commerce. The report shall set forth the
7 findings, conclusions, and recommendations of the
8 Council concerning the effects of adding new generic
9 top-level domains and related dispute resolution pro-
10 cedures on trademark and intellectual property
11 rights holders.

12 (2) SUBMISSION TO CONGRESSIONAL COMMIT-
13 TEES.—Not later than 30 days after the date on
14 which the report is submitted to the Secretary of
15 Commerce, the Secretary shall submit the report to
16 the Committees on Commerce and the Committees
17 on the Judiciary of the Senate and House of Rep-
18 resentatives.

19 (e) AUTHORIZATION OF APPROPRIATIONS.—There is
20 authorized to be appropriated \$800,000 for the study con-
21 ducted under this Act.

Passed the Senate June 26, 1998.

Attest:

GARY SISCO,
Secretary.