

Suspend the Rules and Pass the Bill, H.R. 5312, with An Amendment

(The amendment strikes all after the enacting clause and inserts a new text)

114TH CONGRESS
2^D SESSION

H. R. 5312

To amend the High-Performance Computing Act of 1991 to authorize activities for support of networking and information technology research, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MAY 24, 2016

Mr. LAHOOD (for himself, Ms. EDDIE BERNICE JOHNSON of Texas, Mr. SMITH of Texas, Mr. LIPINSKI, Mr. LUCAS, Mrs. COMSTOCK, Mr. MOOLENAAR, and Mr. ABRAHAM) introduced the following bill; which was referred to the Committee on Science, Space, and Technology

A BILL

To amend the High-Performance Computing Act of 1991 to authorize activities for support of networking and information technology research, 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 “Networking and Infor-
5 mation Technology Research and Development Moderniza-
6 tion Act of 2016”.

1 **SEC. 2. PURPOSES.**

2 Section 3 of the High-Performance Computing Act
3 of 1991 (15 U.S.C. 5502) is amended—

4 (1) in the matter preceding paragraph (1), by
5 striking “high-performance computing” and insert-
6 ing “networking and information technology”;

7 (2) in paragraph (1)—

8 (A) in the matter preceding subparagraph
9 (A), by striking “expanding Federal support for
10 research, development, and application of high-
11 performance computing” and inserting “sup-
12 porting Federal research, development, and ap-
13 plication of networking and information tech-
14 nology”;

15 (B) in subparagraph (A), by striking
16 “high-performance computing” both places it
17 appears and inserting “networking and infor-
18 mation technology”;

19 (C) by striking subparagraphs (C) and
20 (D);

21 (D) by inserting after subparagraph (B)
22 the following:

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

1 (E) by redesignating subparagraphs (E)
2 through (H) as subparagraphs (D) through
3 (G), respectively;

4 (F) in subparagraph (D), as so redesign-
5 ated, by inserting “high-end” after “the devel-
6 opment of”;

7 (G) in subparagraphs (E) and (F), as so
8 redesignated, by striking “high-performance
9 computing” each place it appears and inserting
10 “networking and information technology”; and

11 (H) in subparagraph (G), as so redesign-
12 ated, by striking “high-performance” and in-
13 serting “high-end”; and

14 (3) in paragraph (2)—

15 (A) by striking “high-performance com-
16 puting and” and inserting “networking and in-
17 formation technology and”; and

18 (B) by striking “high-performance com-
19 puting network” and inserting “networking and
20 information technology”.

21 **SEC. 3. DEFINITIONS.**

22 Section 4 of the High-Performance Computing Act
23 of 1991 (15 U.S.C. 5503) is amended—

24 (1) by striking paragraphs (3) and (5);

1 (2) by redesignating paragraphs (1), (2), (4),
2 (6), and (7) as paragraphs (2), (3), (5), (7), and
3 (8), respectively;

4 (3) by inserting before paragraph (2), as so re-
5 designated, the following new paragraph:

6 “(1) ‘cyber-physical systems’ means physical or
7 engineered systems whose networking and informa-
8 tion technology functions and physical elements are
9 deeply integrated and are actively connected to the
10 physical world through sensors, actuators, or other
11 means to perform monitoring and control func-
12 tions;”;

13 (4) in paragraph (3), as so redesignated, by
14 striking “high-performance computing” and insert-
15 ing “networking and information technology”;

16 (5) by inserting after paragraph (3), as so re-
17 designated, the following new paragraph:

18 “(4) ‘high-end computing’ means the most ad-
19 vanced and capable computing systems, including
20 their hardware, storage, networking and software,
21 encompassing both massive computational capability
22 and large-scale data analytics;”;

23 (6) by inserting after paragraph (5), as so re-
24 designated, the following new paragraph:

1 “(6) ‘networking and information technology’
2 means high-end computing, communications, and in-
3 formation technologies, high-capacity and high-speed
4 networks, special purpose and experimental systems,
5 high-end computing systems software and applica-
6 tions software, and the management of large data
7 sets;” and

8 (7) in paragraph (7), as so redesignated, by
9 striking “National High-Performance Computing
10 Program” and inserting “Networking and Informa-
11 tion Technology Research and Development Pro-
12 gram”.

13 **SEC. 4. TITLE I HEADING.**

14 The heading of title I of such Act (15 U.S.C. 5511
15 et seq.) is amended by striking “**HIGH-PERFORM-**
16 **ANCE COMPUTING**” and inserting “**NET-**
17 **WORKING AND INFORMATION TECH-**
18 **NOLOGY**”.

19 **SEC. 5. NETWORKING AND INFORMATION TECHNOLOGY**
20 **RESEARCH AND DEVELOPMENT PROGRAM.**

21 Section 101 of the High-Performance Computing Act
22 of 1991 (15 U.S.C. 5511) is amended—

23 (1) in the section heading, by striking “**NA-**
24 **TIONAL HIGH-PERFORMANCE COMPUTING**
25 **PROGRAM**” and inserting “**NETWORKING AND**

1 **INFORMATION TECHNOLOGY RESEARCH AND**
2 **DEVELOPMENT PROGRAM”;**

3 (2) in subsection (a)—

4 (A) in the subsection heading, by striking
5 “NATIONAL HIGH-PERFORMANCE COMPUTING
6 PROGRAM” and inserting “NETWORKING AND
7 INFORMATION TECHNOLOGY RESEARCH AND
8 DEVELOPMENT”;

9 (B) in paragraph (1)—

10 (i) in the matter preceding subpara-
11 graph (A), by striking “National High-Per-
12 formance Computing Program” and insert-
13 ing “Networking and Information Tech-
14 nology Research and Development Pro-
15 gram”;

16 (ii) in subparagraph (A), by striking
17 “high-performance computing, including
18 networking” and inserting “networking
19 and information technology”;

20 (iii) in subparagraphs (B) and (G), by
21 striking “high-performance” each place it
22 appears and inserting “high-end”;

23 (iv) in subparagraph (C), by striking
24 “high-performance computing and net-

1 working” and inserting “high-end com-
2 puting, distributed, and networking”;

3 (v) by amending subparagraph (D) to
4 read as follows:

5 “(D) provide for efforts to increase software se-
6 curity and reliability;”;

7 (vi) in subparagraph (H)—

8 (I) by inserting “support and
9 guidance” after “provide”; and

10 (II) by striking “and” after the
11 semicolon;

12 (vii) in subparagraph (I)—

13 (I) by striking “improving the se-
14 curity” and inserting “improving the

15 security, reliability, and resilience”;

16 and

17 (II) by striking the period at the
18 end and inserting a semicolon; and

19 (viii) by adding at the end the fol-
20 lowing new subparagraphs:

21 “(J) provide for increased understanding of the
22 scientific principles of cyber-physical systems and
23 improve the methods available for the design, devel-
24 opment, and operation of cyber-physical systems

1 that are characterized by high reliability, safety, and
2 security;

3 “(K) provide for research and development on
4 human-computer interactions, visualization, and big
5 data;

6 “(L) provide for research and development on
7 the enhancement of cybersecurity; and

8 “(M) provide for a research framework to lever-
9 age cyber-physical systems, high capacity and high
10 speed communication networks, and large-scale data
11 analytics to integrate city-scale information tech-
12 nology and physical infrastructures.”;

13 (C) in paragraph (2)—

14 (i) by amending subparagraph (A) to
15 read as follows:

16 “(A) establish the goals and priorities for Fed-
17 eral networking and information technology re-
18 search, development, education, and other activi-
19 ties;”;

20 (ii) by amending subparagraph (C) to
21 read as follows:

22 “(C) provide for interagency coordination of
23 Federal networking and information technology re-
24 search, development, education, and other activities
25 undertaken pursuant to the Program;”;

1 (iii) by amending subparagraph (E) to
2 read as follows:

3 “(E) encourage and monitor the efforts of the
4 agencies participating in the Program to allocate the
5 level of resources and management attention nec-
6 essary to ensure that the strategic plan under sub-
7 section (e) is developed and executed effectively and
8 that the objectives of the Program are met; and”;
9 and

10 (iv) in subparagraph (F), by striking
11 “high-performance” and inserting “high-
12 end”;

13 (D) in paragraph (3)—

14 (i) by redesignating subparagraphs
15 (B), (C), (D), and (E) as subparagraphs
16 (E), (F), (G), and (J), respectively;

17 (ii) by inserting after subparagraph
18 (A) the following new subparagraphs:

19 “(B) provide, as appropriate, a list of the senior
20 steering groups and strategic plans that are planned
21 or underway as addressed under section 104;

22 “(C) provide a description of workshops and
23 other activities conducted under section 104, includ-
24 ing participants and findings;

1 “(D) provide a detailed description of the na-
2 ture and scope of research infrastructure designated
3 as such under the Program;”;

4 (iii) in subparagraph (E), as so redesi-
5 gnated—

6 (I) by redesignating clauses (vii)
7 through (xi) as clauses (viii) through
8 (xii), respectively; and

9 (II) by inserting after clause (vi)
10 the following:

11 “(vii) the Department of Homeland Secu-
12 rity;”;

13 (iv) in subparagraph (F), as so redesi-
14 gnated—

15 (I) by striking “is submitted,”
16 and inserting “is submitted, the levels
17 for the previous fiscal year;” and

18 (II) by striking “each Program
19 Component Area;” and inserting
20 “each Program Component Area and
21 research area supported in accordance
22 with section 103;”;

23 (v) by amending subparagraph (G), as
24 so redesignated, to read as follows:

1 “(G) describe the levels of Federal funding for
2 each agency and department participating in the
3 Program, and for each Program Component Area,
4 for the fiscal year during which such report is sub-
5 mitted, the levels for the previous fiscal year, and
6 the levels proposed for the fiscal year with respect
7 to which the budget submission applies;” and

8 (vi) by inserting after subparagraph
9 (G), as so redesignated, the following:

10 “(H) include a description of how the objectives
11 for each Program Component Area, and the objec-
12 tives for activities that involve multiple Program
13 Component Areas, relate to the objectives of the
14 Program identified in the strategic plan required
15 under subsection (e);

16 “(I) include—

17 “(i) a description of the funding required
18 by the National Coordination Office to perform
19 the functions specified under section 102(b) for
20 the current fiscal year;

21 “(ii) a description of the estimated funding
22 required by such Office to perform the func-
23 tions specified under section 102(b) for the next
24 fiscal year; and

1 “(iii) the amount of funding provided for
2 such Office for the current fiscal year by each
3 agency participating in the Program; and”;

4 (3) in subsection (b)—

5 (A) in paragraph (1), in the matter pre-
6 ceding subparagraph (A)—

7 (i) by striking “high-performance
8 computing” both places it appears and in-
9 serting “networking and information tech-
10 nology”; and

11 (ii) after the first sentence, by insert-
12 ing the following: “Each chair of the advi-
13 sory committee shall meet the qualifica-
14 tions of committee membership and may
15 be a member of the President’s Council of
16 Advisors on Science and Technology.”;

17 (B) in paragraph (1)(D), by striking
18 “high-performance computing, networking tech-
19 nology, and related software” and inserting
20 “networking and information technology”; and

21 (C) in paragraph (2)—

22 (i) in the second sentence, by striking
23 “2” and inserting “3”;

24 (ii) by striking “Committee on Science
25 and Technology” and inserting “Com-

1 mittee on Science, Space, and Tech-
2 nology”; and

3 (iii) by striking “The first report shall
4 be due within 1 year after the date of en-
5 actment of the America COMPETES
6 Act.”;

7 (4) in subsection (c)(1)(A), by striking “high-
8 performance computing” and inserting “networking
9 and information technology”; and

10 (5) by adding at the end the following new sub-
11 sections:

12 “(d) PERIODIC REVIEWS.—The agencies identified in
13 subsection (a)(3)(B) shall—

14 “(1) periodically assess and update, as appro-
15 priate, the contents, scope, and funding levels of the
16 Program Component Areas and work through the
17 National Science and Technology Council and with
18 the assistance of the National Coordination Office
19 described under section 102 to restructure the Pro-
20 gram when warranted, taking into consideration any
21 relevant recommendations of the advisory committee
22 established under subsection (b); and

23 “(2) working through the National Science and
24 Technology Council and with the assistance of the
25 National Coordination Office described under section

1 102, ensure that the Program includes large-scale,
2 long-term, interdisciplinary research and develop-
3 ment activities, including activities described in sec-
4 tion 103.

5 “(e) STRATEGIC PLAN.—

6 “(1) IN GENERAL.—The agencies identified in
7 subsection (a)(3)(B), working through the National
8 Science and Technology Council and with the assist-
9 ance of the National Coordination Office described
10 under section 102, shall develop, within 12 months
11 after the date of enactment of the Networking and
12 Information Technology Research and Development
13 Modernization Act of 2016, and update every five
14 years thereafter, a five-year strategic plan for the
15 Program.

16 “(2) CONTENTS.—The strategic plan shall
17 specify near-term and long-term cross-cutting objec-
18 tives for the Program, the anticipated time frame
19 for achieving the near-term objectives, the metrics to
20 be used for assessing progress toward the objectives,
21 and how the Program will—

22 “(A) address long-term challenges of na-
23 tional importance for which solutions require
24 large-scale, long-term, interdisciplinary research
25 and development;

1 “(B) encourage and support mechanisms
2 for interdisciplinary research and development
3 in networking and information technology and
4 for Grand Challenges, including through col-
5 laborations across agencies, across Program
6 Component Areas, with industry, with Federal
7 laboratories (as defined in section 4 of the Ste-
8 venson-Wydler Technology Innovation Act of
9 1980 (15 U.S.C. 3703)), and with international
10 organizations;

11 “(C) foster the transfer of research and
12 development results into new technologies and
13 applications in the national interest, including
14 through cooperation and collaborations with
15 networking and information technology re-
16 search, development, and technology transition
17 initiatives supported by the States;

18 “(D) provide for cyberinfrastructure needs,
19 as appropriate, across federally funded large-
20 scale research facilities that produce or will
21 produce large amounts of data that will need to
22 be stored, curated, and made publicly available;

23 “(E) strengthen all levels of networking
24 and information technology education and

1 training programs to ensure an adequate, well-
2 trained workforce; and

3 “(F) attract individuals identified in sec-
4 tions 33 and 34 of the Science and Engineering
5 Equal Opportunities Act (42 U.S.C. 1885a and
6 1885b) to networking and information tech-
7 nology fields.

8 “(3) RECOMMENDATIONS.—The entities in-
9 volved in developing the strategic plan under para-
10 graph (1) shall take into consideration the rec-
11 ommendations—

12 “(A) of the advisory committee established
13 under subsection (b);

14 “(B) of the Committee on Science and rel-
15 evant subcommittees of the National Science
16 and Technology Council; and

17 “(C) of the stakeholders whose input was
18 solicited by the National Coordination Office, as
19 required under section 102(b)(3).

20 “(4) REPORT TO CONGRESS.—The Director of
21 the National Coordination Office shall transmit the
22 strategic plan required under paragraph (1) to the
23 advisory committee, the Committee on Science,
24 Space, and Technology of the House of Representa-

1 tives, and the Committee on Commerce, Science, and
2 Transportation of the Senate.”.

3 **SEC. 6. NATIONAL COORDINATION OFFICE.**

4 Section 102 of such Act (15 U.S.C. 5512) is amended
5 to read as follows:

6 **“SEC. 102. NATIONAL COORDINATION OFFICE.**

7 “(a) OFFICE.—The Director shall maintain a Na-
8 tional Coordination Office with a Director and full-time
9 staff.

10 “(b) FUNCTIONS.—The National Coordination Office
11 shall—

12 “(1) provide technical and administrative sup-
13 port to—

14 “(A) the agencies participating in planning
15 and implementing the Program, including such
16 support as needed in the development of the
17 strategic plan under section 101(e); and

18 “(B) the advisory committee established
19 under section 101(b), as appropriate;

20 “(2) serve as the primary point of contact on
21 Federal networking and information technology ac-
22 tivities for government organizations, academia, in-
23 dustry, professional societies, State computing and
24 networking technology programs, interested citizen

1 groups, and others to exchange technical and pro-
2 grammatic information;

3 “(3) solicit input and recommendations from a
4 wide range of stakeholders during the development
5 of each strategic plan required under section 101(e)
6 and the scope of the Program Component Areas
7 through the convening of at least one workshop with
8 invitees from academia, industry, Federal labora-
9 tories, and other relevant organizations and institu-
10 tions;

11 “(4) conduct and increase outreach, including
12 to academia, industry, other relevant organizations
13 and institutions, and the public, in order to increase
14 awareness of the Program and the benefits of the
15 Program and to increase potential opportunities for
16 collaboration between agencies participating in the
17 Program and the private sector; and

18 “(5) promote access to and early application of
19 the technologies, innovations, and expertise derived
20 from Program activities to agency missions and sys-
21 tems across the Federal Government and to United
22 States industry.

23 “(c) SOURCE OF FUNDING.—

24 “(1) IN GENERAL.—The operation of the Na-
25 tional Coordination Office shall be supported by

1 funds from each agency participating in the Pro-
2 gram, subject to the availability of appropriations
3 for such purpose.

4 “(2) SPECIFICATIONS.—The portion of the total
5 budget of such Office that is authorized to be pro-
6 vided by each agency for each fiscal year shall be in
7 the same proportion as each such agency’s share of
8 the total budget for the Program for the previous
9 fiscal year, as specified in the report required under
10 section 101(a)(3).

11 “(3) WAIVER.—As appropriate, the Director
12 may consider and approve a reduction or waiver of
13 an agency contribution requirement under paragraph
14 (2).”.

15 **SEC. 7. NEXT GENERATION INTERNET.**

16 Section 103 of such Act (15 U.S.C. 5513) is repealed.

17 **SEC. 8. GRAND CHALLENGES IN AREAS OF NATIONAL IM-
18 PORTANCE.**

19 Title I of such Act (15 U.S.C. 5511 et seq.) is amend-
20 ed by adding at the end the following new section:

21 **“SEC. 103. GRAND CHALLENGES IN AREAS OF NATIONAL
22 IMPORTANCE.**

23 “(a) IN GENERAL.—The Program shall encourage
24 agencies identified in section 101(a)(3)(E) to support
25 large-scale, long-term, interdisciplinary research and de-

1 velopment activities in networking and information tech-
2 nology directed toward agency mission areas that have the
3 potential for significant contributions to national economic
4 competitiveness and for other significant societal benefits.
5 Such activities, ranging from basic research to the dem-
6 onstration of technical solutions, shall be designed to ad-
7 vance the development of fundamental discoveries. The ad-
8 visory committee established under section 101(b) shall
9 make recommendations to the Program for candidate re-
10 search and development areas for support under this sec-
11 tion.

12 “(b) CHARACTERISTICS.—

13 “(1) IN GENERAL.—Research and development
14 activities under this section shall—

15 “(A) include projects selected on the basis
16 of applications for support through a competi-
17 tive, merit-based process;

18 “(B) involve collaborations among re-
19 searchers in institutions of higher education
20 and industry, and may involve nonprofit re-
21 search institutions and Federal laboratories, as
22 appropriate;

23 “(C) leverage Federal investments through
24 collaboration with related State and private sec-
25 tor initiatives; and

1 “(D) include a plan for fostering the trans-
2 fer of research discoveries and the results of
3 technology demonstration activities, including
4 from institutions of higher education and Fed-
5 eral laboratories, to industry for commercial de-
6 velopment.

7 “(2) COST-SHARING.—In selecting applications
8 for support, the agencies may give special consider-
9 ation to projects that include cost sharing from non-
10 Federal sources.

11 “(3) AGENCY COLLABORATION.—If two or more
12 agencies identified in section 101(a)(3)(E), or other
13 appropriate agencies, are working on large-scale net-
14 working and information technology research and
15 development activities in the same area of national
16 importance, then such agencies shall strive to col-
17 laborate through joint solicitation and selection of
18 applications for support and subsequent funding of
19 projects.

20 “(4) INTERDISCIPLINARY RESEARCH CEN-
21 TERS.—Research and development activities under
22 this section may be supported through interdiscipli-
23 nary research centers that are organized to inves-
24 tigate basic research questions and carry out tech-
25 nology demonstration activities in areas described in

1 subsection (a). Research may be carried out through
2 existing interdisciplinary centers.”.

3 **SEC. 9. WORKSHOPS AND SENIOR STEERING GROUPS.**

4 Title I of such Act (15 U.S.C. 5511 et seq.) is amend-
5 ed further by adding after section 103, as added by section
6 8 of this Act, the following new section:

7 **“SEC. 104. ADDRESSING EMERGING ISSUES.**

8 “(a) IN GENERAL.—In order to address emerging
9 issues, the Director of the National Coordination Office
10 may conduct workshops and other activities on research
11 areas of emerging importance, which may include the
12 grand challenge areas identified under section 103, with
13 participants from institutions of higher education, Federal
14 laboratories, and industry, in order to help guide Program
15 investments and strategic planning in those areas, includ-
16 ing areas identified in subsection (b).

17 “(b) FOCUS AREAS.—In selecting research areas
18 under subsection (a), the Director of the National Coordi-
19 nation Office shall consider the following topics:

20 “(1) Data analytics to identify the current and
21 future state of performing inference, prediction, and
22 other forms of analysis of data, and methods for the
23 collection, management, preservation, and use of
24 data.

1 “(2) The current and future state of the
2 science, engineering, policy, and social under-
3 standing of privacy protection.

4 “(3) The current and future state of funda-
5 mental research on the systems and science of the
6 interplay of people and computing as well as the co-
7 ordination and support being undertaken in areas
8 such as social computing, human-robot interaction,
9 privacy, and health-related aspects in human-com-
10 puter systems.

11 “(c) FUNCTIONS.—The participants in the workshops
12 shall, as appropriate—

13 “(1) develop options for models for research
14 and development partnerships among institutions of
15 higher education, Federal laboratories, and industry,
16 including mechanisms for the support of research
17 and development carried out under these partner-
18 ships;

19 “(2) develop options for research and develop-
20 ment for the specific issue areas that would be ad-
21 dressed through such partnerships;

22 “(3) propose guidelines for assigning intellec-
23 tual property rights and for the transfer of research
24 results to the private sector; and

1 “(4) make recommendations for how Federal
2 agencies participating in the Program can help sup-
3 port research and development partnerships for the
4 specific issue areas.

5 “(d) PARTICIPANTS.—The Director of the National
6 Coordination Office shall ensure that the participants in
7 the workshops—

8 “(1) are individuals with knowledge and exper-
9 tise in the specific issue areas; and

10 “(2) represent a broad mix of relevant stake-
11 holders, including academic and industry researchers
12 and, as appropriate, Federal agencies.

13 “(e) SENIOR STEERING GROUPS AND STRATEGIC
14 PLANS.—As appropriate, the Director of the National Co-
15 ordination Office shall establish senior steering groups and
16 develop focused strategic plans to coordinate and guide ac-
17 tivities under the research areas identified under this sec-
18 tion, taking into consideration the findings and rec-
19 ommendations from any workshops carried out on those
20 research topics.”.

21 **SEC. 10. NATIONAL SCIENCE FOUNDATION ACTIVITIES.**

22 Section 201 of such Act (15 U.S.C. 5521) is amend-
23 ed—

24 (1) in subsection (a)—

25 (A) in paragraph (1)—

1 (i) by inserting “high-end” after “Na-
2 tional Science Foundation shall provide”;
3 and

4 (ii) by striking “high-performance
5 computing” and all that follows through
6 “networking;” and inserting “networking
7 and information technology; and”;

8 (B) by striking paragraphs (2) through
9 (4); and

10 (C) by inserting after paragraph (1) the
11 following new paragraph:

12 “(2) the National Science Foundation shall use
13 its existing programs, in collaboration with other
14 agencies, as appropriate, to improve the teaching
15 and learning of networking and information tech-
16 nology at all levels of education and to increase par-
17 ticipation in networking and information technology
18 fields, including by individuals identified in sections
19 33 and 34 of the Science and Engineering Equal
20 Opportunities Act (42 U.S.C. 1885a and 1885b).”;
21 and

22 (2) by striking subsection (b).

1 **SEC. 11. NATIONAL AERONAUTICS AND SPACE ADMINIS-**
2 **TRATION ACTIVITIES.**

3 Section 202 of such Act (15 U.S.C. 5522) is amend-
4 ed—

5 (1) by striking subsection (b);

6 (2) by striking “(a) GENERAL RESPONSIBIL-
7 ITIES.—”; and

8 (3) by striking “high-performance computing”
9 and inserting “networking and information tech-
10 nology”.

11 **SEC. 12. DEPARTMENT OF ENERGY ACTIVITIES.**

12 Section 203 of such Act (15 U.S.C. 5523) is amend-
13 ed—

14 (1) by striking subsection (b);

15 (2) by striking “(a) GENERAL RESPONSIBIL-
16 ITIES.—”;

17 (3) in paragraph (1), by striking “high-per-
18 formance computing and networking” and inserting
19 “networking and information technology”; and

20 (4) in paragraph (2)(A), by striking “high-per-
21 formance” and inserting “high-end”.

22 **SEC. 13. DEPARTMENT OF COMMERCE ACTIVITIES.**

23 Section 204 of such Act (15 U.S.C. 5524) is amend-
24 ed—

25 (1) in subsection (a)(1)—

1 (A) in subparagraph (A), by striking
2 “high-performance computing systems and net-
3 works” and inserting “networking and informa-
4 tion technology systems and capabilities”;

5 (B) in subparagraph (B), by striking
6 “interoperability of high-performance com-
7 puting systems in networks and for common
8 user interfaces to systems” and inserting
9 “interoperability and usability of networking
10 and information technology systems”; and

11 (C) in subparagraph (C), by striking
12 “high-performance computing” and inserting
13 “networking and information technology”;

14 (2) in subsection (b)—

15 (A) in the heading, by striking “HIGH-
16 PERFORMANCE COMPUTING AND NETWORK”
17 and inserting “NETWORKING AND INFORMA-
18 TION TECHNOLOGY”;

19 (B) by striking “Pursuant to the Com-
20 puter Security Act of 1987 (Public Law 100-
21 235; 101 Stat. 1724), the” and inserting
22 “The”; and

23 (C) by striking “sensitive”; and

24 (3) by striking subsections (c) and (d).

1 **SEC. 14. ENVIRONMENTAL PROTECTION AGENCY ACTIVITIES.**
2 **TIES.**

3 Section 205 of such Act (15 U.S.C. 5525) is amend-
4 ed—

5 (1) by striking subsection (b);

6 (2) by striking “(a) GENERAL RESPONSIBILITIES.—”;

8 (3) by striking “basic and applied”;

9 (4) by striking “computational” and inserting
10 “networking and information technology”; and

11 (5) by inserting “All software and code, along
12 with any subsequent updates to the software and
13 code, developed by the Environmental Protection
14 Agency under the Program and used in conducting
15 scientific research shall be made publically available.

16 In cases where the underlying software or code is
17 proprietary or contains confidential business infor-
18 mation, the Agency shall disclose only the name and
19 vendor of the software and code used for all propri-
20 etary or confidential business information portions
21 of the software or code. The Environmental Protec-
22 tion Agency shall ensure that the research conducted
23 under the Program does not duplicate the scope or
24 aims of similar research and initiatives at other Fed-
25 eral agencies. No Environmental Protection Agency
26 funds shall be used towards research that duplicates

1 the scope or aims of similar research and initiatives
2 at other Federal agencies.” after “dynamics mod-
3 els.”.

4 **SEC. 15. ROLE OF THE DEPARTMENT OF EDUCATION.**

5 Section 206 of such Act (15 U.S.C. 5526) is amend-
6 ed—

7 (1) by striking subsection (b);

8 (2) by striking “(a) GENERAL RESPONSIBIL-
9 ITIES.—”; and

10 (3) by striking “to conduct basic” and all that
11 follows through “software capabilities” and inserting
12 “to support programs and activities to improve the
13 teaching and learning of networking and information
14 technology fields and contribute to the development
15 of a skilled networking and information technology
16 workforce”.

17 **SEC. 16. MISCELLANEOUS PROVISIONS.**

18 Section 207(b) of such Act (15 U.S.C. 5527(b)) is
19 amended by striking “high-performance computing” and
20 inserting “networking and information technology”.

21 **SEC. 17. REPEAL.**

22 Section 208 of such Act (15 U.S.C. 5528) is repealed.

1 SEC. 18. ADDITIONAL REPEAL.

2 Section 4 of the Department of Energy High-End
3 Computing Revitalization Act of 2004 (15 U.S.C. 5543)
4 is repealed.