

Union Calendar No. 277

110TH CONGRESS
1ST SESSION

H. R. 2406

[Report No. 110–451]

To authorize the National Institute of Standards and Technology to increase its efforts in support of the integration of the healthcare information enterprise in the United States.

IN THE HOUSE OF REPRESENTATIVES

MAY 21, 2007

Mr. GORDON of Tennessee introduced the following bill; which was referred to the Committee on Science and Technology

NOVEMBER 15, 2007

Additional sponsors: Mr. GINGREY, Mr. LIPINSKI, Mr. CARNAHAN, Mr. WU, Mr. MATHESON, Ms. BORDALLO, Mr. COHEN, Mr. CHANDLER, Mr. WILSON of Ohio, Mr. COSTELLO, Ms. HOOLEY, Ms. EDDIE BERNICE JOHNSON of Texas, Ms. RICHARDSON, Mr. HILL, Mr. MCNERNEY, Mr. MITCHELL, Ms. WOOLSEY, Ms. GIFFORDS, Mr. MILLER of North Carolina, Mr. ROTHMAN, Mr. LAMPSON, Mr. BAIRD, Mr. ROSS, Mr. KANJORSKI, Mr. MELANCON, Mr. TOWNS, Mr. UDALL of Colorado, and Mr. SESTAK

NOVEMBER 15, 2007

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in *italie*]

[For text of introduced bill, see copy of bill as introduced on May 21, 2007]

A BILL

To authorize the National Institute of Standards and Technology to increase its efforts in support of the integration

of the healthcare information enterprise in the United States.

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 “Healthcare Information*
 5 *Technology Enterprise Integration Act”.*

6 **SEC. 2. FINDINGS.**

7 *Congress finds the following:*

8 (1) *The National Institute of Standards and*
 9 *Technology, because of the electronic commerce, infor-*
 10 *mation technology and security expertise in its lab-*
 11 *oratories and the healthcare component of the Mal-*
 12 *colm Baldrige National Quality Award, and its long*
 13 *history of working with the information technology*
 14 *and healthcare industries, is well equipped to com-*
 15 *plement the healthcare information technology imple-*
 16 *mentation efforts as established by Executive Order*
 17 *13335 of April 27, 2004, by addressing the technical*
 18 *challenges posed by healthcare information enterprise*
 19 *integration.*

20 (2) *Therefore, it is in the national interest for*
 21 *the National Institute of Standards and Technology*
 22 *to accelerate its efforts—*

23 (A) *to participate in the development of*
 24 *technical standards, standards conformance tests,*

1 *and enterprise integration processes that are nec-*
 2 *essary to increase efficiency and quality of care,*
 3 *and lower costs in the healthcare industry; and*
 4 *(B) ensuring that all components of the*
 5 *United States healthcare infrastructure can be a*
 6 *part of an electronic information network that is*
 7 *reliable, interoperable, and secure.*

8 **SEC. 3. HEALTHCARE INFORMATION ENTERPRISE INTEGRA-**
 9 **TION INITIATIVE.**

10 *(a) ESTABLISHMENT.—The Director of the National*
 11 *Institute of Standards and Technology shall establish an*
 12 *initiative for advancing healthcare information enterprise*
 13 *integration within the United States. In carrying out this*
 14 *section, the Director shall involve various units of the Na-*
 15 *tional Institute of Standards and Technology, including its*
 16 *laboratories and the Malcolm Baldrige National Quality*
 17 *Program. This initiative shall build upon ongoing efforts*
 18 *of the National Institute of Standards and Technology, the*
 19 *private sector, and other Federal agencies, shall involve con-*
 20 *sortia that include government and industry, and shall be*
 21 *designed to permit healthcare information enterprise inte-*
 22 *gration. These efforts shall complement ongoing activities*
 23 *occurring under Executive Order 13335 of April 27, 2004.*
 24 *(b) TECHNICAL ACTIVITIES.—In order to carry out*
 25 *this section, the Director may focus on—*

1 (1) *information technology standards and inter-*
2 *operability analysis, which may include the develop-*
3 *ment of technical testbeds;*

4 (2) *supporting the establishment of conformance*
5 *testing infrastructure, including software conformance*
6 *and certification;*

7 (3) *security;*

8 (4) *medical device communication;*

9 (5) *supporting the provisioning of technical ar-*
10 *chitecture products for management and retrieval;*
11 *and*

12 (6) *information management including elec-*
13 *tronic health records management, health information*
14 *usability, and access and decision support.*

15 (c) *OTHER ACTIVITIES.*—*The Director may assist*
16 *healthcare representatives and organizations and Federal*
17 *agencies in the development of technical roadmaps that*
18 *identify the remaining steps needed to ensure that technical*
19 *standards for application protocols, interoperability, data*
20 *integrity, and security, as well as the corollary conformance*
21 *test protocols, will be in place. These roadmaps shall rely*
22 *upon voluntary consensus standards where possible con-*
23 *sistent with Federal technology transfer laws.*

24 (d) *PLANS AND REPORTS.*—*Not later than 90 days*
25 *after the date of enactment of this Act, and annually there-*

1 *after, the Director shall transmit a report to the Committee*
2 *on Science and Technology of the House of Representatives*
3 *and the Committee on Commerce, Science, and Transpor-*
4 *tation of the Senate on the activities of the National Insti-*
5 *tute of Standards and Technology under this section.*

6 **SEC. 4. FEDERAL HEALTHCARE INFORMATION TECH-**
7 **NOLOGY SYSTEMS AND INFRASTRUCTURE.**

8 *(a) GUIDELINES AND STANDARDS.—Not later than 12*
9 *months after the date of enactment of this Act, the Director*
10 *of the National Institute of Standards and Technology, in*
11 *consultation with industry and appropriate Federal agen-*
12 *cies, shall report on development of technology-neutral in-*
13 *formation technology infrastructure guidelines and stand-*
14 *ards, or the adoption of existing technology-neutral indus-*
15 *try guidelines and private sector standards, for use by Fed-*
16 *eral agencies to enable those agencies to effectively select and*
17 *utilize healthcare information technologies in a manner*
18 *that is—*

19 *(1) sufficiently secure to meet the needs of those*
20 *agencies (as is consistent with the Computer Security*
21 *Act of 1987, as amended, section 225 of the Homeland*
22 *Security Act of 2002, and title III of the E-Govern-*
23 *ment Act of 2002), their transaction partners, and the*
24 *general public;*

1 (2) *interoperable, to the maximum extent pos-*
2 *sible; and*

3 (3) *inclusive of ongoing Federal efforts that pro-*
4 *vide technical expertise to harmonize existing stand-*
5 *ards and assist in the development of interoperability*
6 *specifications.*

7 (b) *ELEMENTS.—The guidelines and standards devel-*
8 *oped under subsection (a) shall—*

9 (1) *promote the use by Federal agencies of com-*
10 *mercially available products that incorporate the*
11 *guidelines and standards developed under subsection*
12 *(a);*

13 (2) *develop uniform testing procedures suitable*
14 *for determining the conformance of commercially*
15 *available and Federal healthcare information tech-*
16 *nology products with the guidelines and standards;*

17 (3) *support and promote the testing of electronic*
18 *healthcare information technologies utilized by Fed-*
19 *eral agencies;*

20 (4) *provide protection and security profiles;*

21 (5) *establish a core set of interoperability speci-*
22 *fications in transactions between Federal agencies*
23 *and their transaction partners; and*

1 (6) *include validation criteria to enable Federal*
2 *agencies to select healthcare information technologies*
3 *appropriate to their needs.*

4 (c) *REPORTS.*—*Not later than 18 months after the date*
5 *of enactment of this Act, and annually thereafter, the Direc-*
6 *tor shall transmit to the Congress a report that includes*
7 *a description and analysis of—*

8 (1) *the level of interoperability and security of*
9 *technologies for sharing healthcare information among*
10 *Federal agencies; and*

11 (2) *the problems Federal agencies are having*
12 *with, and the progress such agencies are making to-*
13 *ward, ensuring interoperable and secure healthcare*
14 *information systems and electronic healthcare records.*

15 **SEC. 5. RESEARCH AND DEVELOPMENT PROGRAMS.**

16 (a) *HEALTHCARE INFORMATION ENTERPRISE INTE-*
17 *GRATION RESEARCH CENTERS.*—

18 (1) *IN GENERAL.*—*The Director of the National*
19 *Institute of Standards and Technology, in consulta-*
20 *tion the Director of the National Science Foundation*
21 *and other appropriate Federal agencies, shall estab-*
22 *lish a program of assistance to institutions of higher*
23 *education (or consortia thereof which may include*
24 *nonprofit entities and Federal Government labora-*

1 *tories) to establish multidisciplinary Centers for*
 2 *Healthcare Information Enterprise Integration.*

3 (2) *REVIEW; COMPETITION.*—*Grants shall be*
 4 *awarded under this subsection on a merit-reviewed,*
 5 *competitive basis.*

6 (3) *PURPOSE.*—*The purposes of the Centers shall*
 7 *be—*

8 (A) *to generate innovative approaches to*
 9 *healthcare information enterprise integration by*
 10 *conducting cutting-edge, multidisciplinary re-*
 11 *search on the systems challenges to healthcare de-*
 12 *livery; and*

13 (B) *the development and use of information*
 14 *technologies and other complementary fields.*

15 (4) *RESEARCH AREAS.*—*Research areas may in-*
 16 *clude—*

17 (A) *the interfaces between human informa-*
 18 *tion and communications technology systems;*

19 (B) *voice-recognition systems;*

20 (C) *software that improves interoperability*
 21 *and connectivity among systems;*

22 (D) *software dependability in systems crit-*
 23 *ical to healthcare delivery;*

1 (E) measurement of the impact of informa-
2 tion technologies on the quality and productivity
3 of healthcare;

4 (F) healthcare information enterprise man-
5 agement; and

6 (G) information technology security and in-
7 tegrity.

8 (5) APPLICATIONS.—An institution of higher
9 education (or a consortium thereof) seeking funding
10 under this subsection shall submit an application to
11 the Director at such time, in such manner, and con-
12 taining such information as the Director may re-
13 quire. The application shall include, at a minimum,
14 a description of—

15 (A) the research projects that will be under-
16 taken by the Center and the respective contribu-
17 tions of the participating entities;

18 (B) how the Center will promote active col-
19 laboration among scientists and engineers from
20 different disciplines, such as information tech-
21 nology, biologic sciences, management, social
22 sciences, and other appropriate disciplines;

23 (C) technology transfer activities to dem-
24 onstrate and diffuse the research results, tech-
25 nologies, and knowledge; and

1 (D) how the Center will contribute to the
2 education and training of researchers and other
3 professionals in fields relevant to healthcare in-
4 formation enterprise integration.

5 (b) NATIONAL INFORMATION TECHNOLOGY RESEARCH
6 AND DEVELOPMENT PROGRAM.—The National High-Per-
7 formance Computing Program established by section 101 of
8 the High-Performance Computing Act of 1991 (15 U.S.C.
9 5511) shall coordinate Federal research and development
10 programs related to the development and deployment of
11 health information technology, including activities related
12 to—

- 13 (1) computer infrastructure;
14 (2) data security;
15 (3) development of large-scale, distributed, reli-
16 able computing systems;
17 (4) wired, wireless, and hybrid high-speed net-
18 working;
19 (5) development of software and software-inten-
20 sive systems;
21 (6) human-computer interaction and informa-
22 tion management technologies; and
23 (7) the social and economic implications of in-
24 formation technology.

1 (c) *STRATEGIC PLAN FOR HEALTHCARE TECH-*
2 *NOLOGIES AND CLASSIFICATION.*—

3 (1) *IN GENERAL.*—*The Director of the National*
4 *Institute of Standards and Technology, in consulta-*
5 *tion with the Director of the National Science Foun-*
6 *dation, not later than 90 days after the date of enact-*
7 *ment of this Act, shall establish a task force whose*
8 *membership includes representatives of other Federal*
9 *agencies and industry groups (such as the American*
10 *Health Information Management Association and the*
11 *American Medical Informatics Association) to develop*
12 *a strategic plan including recommendations for—*

13 (A) *the development, adoption, and mainte-*
14 *nance of terminologies and classifications;*

15 (B) *gaining commitment of terminology*
16 *and classification stakeholders (such as devel-*
17 *opers, end users, and other service and tech-*
18 *nology suppliers) to principles and guidelines for*
19 *open and transparent processes to enable cost-ef-*
20 *fective interoperability and complete and accu-*
21 *rate information;*

22 (C) *the design of a centralized authority or*
23 *governance model, including principles for its*
24 *operation and funding scenarios;*

1 (D) *United States participation in the*
2 *International Health Terminology Standards*
3 *Development Organization; and*

4 (E) *any other issues identified by the task*
5 *force.*

6 (2) *TASK FORCE REPORT.*—*The task force shall*
7 *report its findings and recommendations to the Com-*
8 *mittee on Science and Technology of the House of*
9 *Representatives not later than 18 months after the*
10 *date of enactment of this Act. The task force shall ter-*
11 *minate after transmitting such report.*

12 (3) *FEDERAL ADVISORY COMMITTEE ACT.*—*The*
13 *task force established under this subsection shall not*
14 *be subject to the Federal Advisory Committee Act (5*
15 *U.S.C. App.).*

16 **SEC. 6. AUTHORIZATION OF APPROPRIATIONS.**

17 *There are authorized to be appropriated to the Director*
18 *of the National Institute of Standards and Technology for*
19 *carrying out this Act \$8,000,000 for each of the fiscal years*
20 *2009 and 2010, to be derived from amounts authorized*
21 *under section 3001 of Public Law 110–69.*

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