

110TH CONGRESS
1ST SESSION

H. R. 2406

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

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. FINDINGS.**

4 Congress finds the following:

5 (1) The National Institute of Standards and
6 Technology, because of the electronic commerce, in-
7 formation technology, security, and privacy expertise
8 in its laboratories and the healthcare component of

1 the Malcolm Baldrige National Quality Award, and
2 its long history of working with the information
3 technology and healthcare industries, is well
4 equipped to address the technical challenges posed
5 by healthcare information enterprise integration.

6 (2) Therefore, it is in the national interest for
7 the National Institute of Standards and Technology
8 to accelerate its efforts—

9 (A) to develop standards, standards con-
10 formance tests, and enterprise integration proc-
11 esses that are necessary to increase efficiency
12 and quality of care, and lower costs in the
13 healthcare industry; and

14 (B) ensuring that all components of the
15 United States healthcare infrastructure can be
16 a part of an electronic information network that
17 is reliable, interoperable, and secure, and pro-
18 tects privacy.

19 **SEC. 2. HEALTHCARE INFORMATION ENTERPRISE INTE-**
20 **GRATION INITIATIVE.**

21 (a) ESTABLISHMENT.—The Director of the National
22 Institute of Standards and Technology shall establish an
23 initiative for advancing healthcare information enterprise
24 integration within the United States. In carrying out this
25 section, the Director shall involve various units of the Na-

1 tional Institute of Standards and Technology, including its
2 laboratories and the Malcolm Baldrige National Quality
3 Program. This initiative shall build upon ongoing efforts
4 of the National Institute of Standards and Technology,
5 the private sector, and other Federal agencies, shall in-
6 volve consortia that include government and industry, and
7 shall be designed to permit healthcare information enter-
8 prise integration.

9 (b) TECHNICAL ACTIVITIES.—In order to carry out
10 this section, the Director may focus on—

11 (1) information technology standards and inter-
12 operability analysis, which may include the develop-
13 ment of technical testbeds;

14 (2) software conformance and certification;

15 (3) security and privacy;

16 (4) medical device communication;

17 (5) supporting the provisioning of technical ar-
18 chitecture products for management and retrieval;

19 (6) supporting the establishment of conform-
20 ance testing infrastructure;

21 (7) information management, including elec-
22 tronic health records management and data summa-
23 rization; and

24 (8) health information usability, access, and de-
25 cision support.

1 (c) OTHER ACTIVITIES.—The Director may assist
2 healthcare representatives and organizations and Federal
3 agencies in the development of technical roadmaps that
4 identify the remaining steps needed to ensure that stand-
5 ards for application protocols, interoperability, data integ-
6 rity, and security and privacy, as well as the corollary con-
7 formance test protocols, will be in place. These roadmaps
8 shall rely upon voluntary consensus standards where pos-
9 sible.

10 (d) PLANS AND REPORTS.—Not later than 90 days
11 after the date of enactment of this Act, and annually
12 thereafter, the Director shall transmit a report to the
13 Committee on Science and Technology of the House of
14 Representatives and the Committee on Commerce,
15 Science, and Transportation of the Senate on the activities
16 of the National Institute of Standards and Technology
17 under this section.

18 **SEC. 3. FEDERAL HEALTHCARE INFORMATION TECH-**
19 **NOLOGY SYSTEMS AND INFRASTRUCTURE.**

20 (a) GUIDELINES AND STANDARDS.—Not later than
21 6 months after the date of enactment of this Act, the Di-
22 rector of the National Institute of Standards and Tech-
23 nology, in consultation with industry and appropriate Fed-
24 eral agencies, shall develop technology-neutral information
25 technology infrastructure guidelines and standards, or

1 adopt existing technology-neutral industry guidelines and
2 standards, for use by Federal agencies to enable those
3 agencies to effectively select and utilize healthcare infor-
4 mation technologies in a manner that is—

5 (1) sufficiently secure and provides adequate
6 privacy to meet the needs of those agencies, their
7 transaction partners, and the general public; and

8 (2) interoperable, to the maximum extent pos-
9 sible.

10 (b) ELEMENTS.—The guidelines and standards devel-
11 oped under subsection (a) shall—

12 (1) promote the use by Federal agencies of
13 commercially available products that incorporate the
14 guidelines and standards developed under subsection
15 (a);

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

20 (3) support and promote the testing of elec-
21 tronic healthcare information technologies utilized by
22 Federal agencies;

23 (4) provide protection and privacy profiles;

1 (5) establish a core set of interoperability speci-
2 fications in transactions between Federal agencies
3 and their transaction partners; and

4 (6) include validation criteria to enable Federal
5 agencies to select healthcare information tech-
6 nologies appropriate to their needs.

7 (c) REPORTS.—Not later than 18 months after the
8 date of enactment of this Act, and annually thereafter,
9 the Director shall transmit to the Congress a report that
10 includes a description and analysis of—

11 (1) the level of interoperability, privacy, and se-
12 curity of technologies for sharing healthcare infor-
13 mation among Federal agencies; and

14 (2) the problems Federal agencies are having
15 with, and the progress such agencies are making to-
16 ward, ensuring interoperable, secure, and private
17 healthcare information systems and electronic
18 healthcare records.

19 (d) SENIOR INTERAGENCY COUNCIL ON FEDERAL
20 HEALTHCARE INFORMATION TECHNOLOGY INFRASTRUC-
21 TURE.—The Undersecretary of Commerce for Technology
22 shall establish a Senior Interagency Council on Federal
23 Healthcare Information Technology Infrastructure. The
24 responsibilities of the Council are to—

1 (1) coordinate the development and deployment
2 of healthcare information technology solutions across
3 all Federal departments and agencies, with emphasis
4 on interoperability, privacy, and security issues;

5 (2) coordinate the associated technology trans-
6 fer to and from the private sector; and

7 (3) coordinate Federal funding and participa-
8 tion in private, voluntary standards development or-
9 ganizations, as related to electronic healthcare
10 records systems.

11 **SEC. 4. RESEARCH AND DEVELOPMENT PROGRAMS.**

12 (a) HEALTHCARE INFORMATION ENTERPRISE INTE-
13 GRATION RESEARCH CENTERS.—

14 (1) IN GENERAL.—The Director of the National
15 Institute of Standards and Technology, in consulta-
16 tion the Director of the National Science Foundation
17 and other appropriate Federal agencies, shall estab-
18 lish a program of assistance to institutions of higher
19 education (or consortia thereof) that enter into part-
20 nerships with for-profit entities or nonprofit entities
21 to establish multidisciplinary Centers for Healthcare
22 Information Enterprise Integration. The partner-
23 ships may also include government laboratories.

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

4 (3) PURPOSE.—The purposes of the Centers
5 shall be—

6 (A) to generate innovative approaches to
7 healthcare information enterprise integration by
8 conducting cutting-edge, multidisciplinary re-
9 search on the systems challenges to healthcare
10 delivery; and

11 (B) the development and use of informa-
12 tion technologies and other complementary
13 fields.

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

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

18 (B) voice-recognition systems;

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

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

23 (E) measurement of the impact of informa-
24 tion technologies on the quality and productivity
25 of healthcare;

1 (F) healthcare information enterprise man-
2 agement; and

3 (G) information technology security and
4 integrity.

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

12 (A) the research projects that will be un-
13 dertaken by the Center and the respective con-
14 tributions of the participating entities;

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

20 (C) technology transfer activities to dem-
21 onstrate and diffuse the research results, tech-
22 nologies, and knowledge; and

23 (D) how the Center will contribute to the
24 education and training of researchers and other

1 professionals in fields relevant to healthcare in-
2 formation enterprise integration.

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

11 (1) computer infrastructure;

12 (2) data privacy and security;

13 (3) development of large-scale, distributed, reli-
14 able computing systems;

15 (4) wired, wireless, and hybrid high-speed net-
16 working;

17 (5) development of software and software-inten-
18 sive systems;

19 (6) human-computer interaction and informa-
20 tion management technologies; and

21 (7) the social and economic implications of in-
22 formation technology.

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