

115TH CONGRESS  
1ST SESSION

# S. 278

To amend the Homeland Security Act of 2002 to provide for innovative research and development, and for other purposes.

---

IN THE SENATE OF THE UNITED STATES

FEBRUARY 2, 2017

Mr. DAINES (for himself and Mr. WARNER) introduced the following bill; which was read twice and referred to the Committee on Homeland Security and Governmental Affairs

---

## A BILL

To amend the Homeland Security Act of 2002 to provide for innovative research and development, 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 “Support for Rapid In-  
5 novation Act of 2017”.

6 **SEC. 2. CYBERSECURITY RESEARCH AND DEVELOPMENT**  
7 **PROJECTS.**

8 (a) CYBERSECURITY RESEARCH AND DEVELOP-  
9 MENT.—



1 for real-time containment of attacks, and develop-  
2 ment of resilient networks and information systems;

3 “(4) support, in coordination with non-Federal  
4 entities, the review of source code that underpins  
5 critical infrastructure information systems;

6 “(5) assist the development and support infra-  
7 structure and tools to support cybersecurity research  
8 and development efforts, including modeling,  
9 testbeds, and data sets for assessment of new cyber-  
10 security technologies;

11 “(6) assist the development and support of  
12 technologies to reduce vulnerabilities in industrial  
13 control systems;

14 “(7) assist the development and support cyber  
15 forensics and attack attribution capabilities;

16 “(8) assist the development and accelerate the  
17 deployment of full information lifecycle security tech-  
18 nologies to enhance protection, control, and privacy  
19 of information to detect and prevent cybersecurity  
20 risks and incidents;

21 “(9) assist the development and accelerate the  
22 deployment of information security measures, in ad-  
23 dition to perimeter-based protections;

1           “(10) assist the development and accelerate the  
2 deployment of technologies to detect improper infor-  
3 mation access by authorized users;

4           “(11) assist the development and accelerate the  
5 deployment of cryptographic technologies to protect  
6 information at rest, in transit, and in use;

7           “(12) assist the development and accelerate the  
8 deployment of methods to promote greater software  
9 assurance;

10           “(13) assist the development and accelerate the  
11 deployment of tools to securely and automatically  
12 update software and firmware in use, with limited or  
13 no necessary intervention by users and limited im-  
14 pact on concurrently operating systems and proc-  
15 esses; and

16           “(14) assist in identifying and addressing un-  
17 identified or future cybersecurity threats.

18           “(c) COORDINATION.—In carrying out this section,  
19 the Under Secretary for Science and Technology shall co-  
20 ordinate activities with—

21           “(1) the Under Secretary appointed pursuant to  
22 section 103(a)(1)(H);

23           “(2) the heads of other relevant Federal depart-  
24 ments and agencies, as appropriate; and

25           “(3) industry and academia.

1           “(d) TRANSITION TO PRACTICE.—The Under Sec-  
2 retary for Science and Technology shall support projects  
3 carried out under this title through the full life cycle of  
4 such projects, including research, development, testing,  
5 evaluation, pilots, and transitions. The Under Secretary  
6 shall identify mature technologies that address existing or  
7 imminent cybersecurity gaps in public or private informa-  
8 tion systems and networks of information systems, protect  
9 sensitive information within and outside networks of infor-  
10 mation systems, identify and support necessary improve-  
11 ments identified during pilot programs and testing and  
12 evaluation activities, and introduce new cybersecurity  
13 technologies throughout the homeland security enterprise  
14 through partnerships and commercialization. The Under  
15 Secretary shall target federally funded cybersecurity re-  
16 search that demonstrates a high probability of successful  
17 transition to the commercial market within two years and  
18 that is expected to have a notable impact on the public  
19 or private information systems and networks of informa-  
20 tion systems.

21           “(e) DEFINITIONS.—In this section:

22                   “(1) CYBERSECURITY RISK.—The term ‘cyber-  
23 security risk’ has the meaning given such term in  
24 section 227.

1           “(2) HOMELAND SECURITY ENTERPRISE.—The  
 2 term ‘homeland security enterprise’ means relevant  
 3 governmental and nongovernmental entities involved  
 4 in homeland security, including Federal, State, local,  
 5 and tribal government officials, private sector rep-  
 6 resentatives, academics, and other policy experts.

7           “(3) INCIDENT.—The term ‘incident’ has the  
 8 meaning given such term in section 227.

9           “(4) INFORMATION SYSTEM.—The term ‘infor-  
 10 mation system’ has the meaning given such term in  
 11 section 3502(8) of title 44, United States Code.

12           “(5) SOFTWARE ASSURANCE.—The term ‘soft-  
 13 ware assurance’ means confidence that software—

14           “(A) is free from vulnerabilities, either in-  
 15 tentiously designed into the software or acci-  
 16 dentally inserted at any time during the life  
 17 cycle of the software; and

18           “(B) functioning in the intended manner.”.

19           (2) CLERICAL AMENDMENT.—The table of con-  
 20 tents in section 1(b) of the Homeland Security Act  
 21 of 2002 is amended by inserting after the item relat-  
 22 ing to the second section 319 the following new item:

“Sec. 321. Cybersecurity research and development.”.

23           (b) RESEARCH AND DEVELOPMENT PROJECTS.—  
 24 Section 831 of the Homeland Security Act of 2002 (6  
 25 U.S.C. 391) is amended—

1 (1) in subsection (a)—

2 (A) in the matter preceding paragraph (1),  
3 by striking “2016” and inserting “2021”;

4 (B) in paragraph (1), by striking the last  
5 sentence; and

6 (C) by adding at the end the following new  
7 paragraph:

8 “(3) PRIOR APPROVAL.—In any case in which  
9 the head of a component or office of the Department  
10 seeks to utilize the authority under this section, such  
11 head shall first receive prior approval from the Sec-  
12 retary by providing to the Secretary a proposal that  
13 includes the rationale for the utilization of such au-  
14 thority, the funds to be spent on the use of such au-  
15 thority, and the expected outcome for each project  
16 that is the subject of the use of such authority. In  
17 such a case, the authority for evaluating the pro-  
18 posal may not be delegated by the Secretary to any-  
19 one other than the Under Secretary for Manage-  
20 ment.”;

21 (2) in subsection (c)—

22 (A) in paragraph (1), in the matter pre-  
23 ceeding subparagraph (A), by striking “2016”  
24 and inserting “2021”; and

1 (B) by amending paragraph (2) to read as  
2 follows:

3 “(2) REPORT.—The Secretary shall annually  
4 submit to the Committee on Homeland Security and  
5 the Committee on Science, Space, and Technology of  
6 the House of Representatives and the Committee on  
7 Homeland Security and Governmental Affairs of the  
8 Senate a report detailing the projects for which the  
9 authority granted by subsection (a) was utilized, the  
10 rationale for such utilizations, the funds spent uti-  
11 lizing such authority, the extent of cost-sharing for  
12 such projects among Federal and non-Federal  
13 sources, the extent to which utilization of such au-  
14 thority has addressed a homeland security capability  
15 gap or threat to the homeland identified by the De-  
16 partment, the total amount of payments, if any, that  
17 were received by the Federal Government as a result  
18 of the utilization of such authority during the period  
19 covered by each such report, the outcome of each  
20 project for which such authority was utilized, and  
21 the results of any audits of such projects.”; and

22 (3) by adding at the end the following new sub-  
23 section:

24 “(e) TRAINING.—The Secretary shall develop a train-  
25 ing program for acquisitions staff on the utilization of the



1 authority provided under subsection (a) to ensure account-  
2 ability and effective management of projects consistent  
3 with the Program Management Improvement Account-  
4 ability Act (Public Law 114–264) and the amendments  
5 made by such Act.”.

6 (c) NO ADDITIONAL FUNDS AUTHORIZED.—No addi-  
7 tional funds are authorized to carry out the requirements  
8 of this Act and the amendments made by this Act. Such  
9 requirements shall be carried out using amounts otherwise  
10 authorized.

○