

## Calendar No. 375

116TH CONGRESS  
1ST SESSION

# S. 1611

[Report No. 116–179]

To ensure appropriate prioritization, spectrum planning, and interagency coordination to support the Internet of Things.

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## IN THE SENATE OF THE UNITED STATES

MAY 22, 2019

Mrs. FISCHER (for herself, Mr. SCHATZ, Mr. GARDNER, and Mr. BOOKER) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

DECEMBER 17, 2019

Reported by Mr. WICKER, with amendments

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## A BILL

To ensure appropriate prioritization, spectrum planning, and interagency coordination to support the Internet of Things.

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

1 **SECTION 1. SHORT TITLE.**

2       This Act may be cited as the “Developing Innovation  
3 and Growing the Internet of Things Act” or the “DIGIT  
4 Act”.

5 **SEC. 2. FINDINGS; SENSE OF CONGRESS.**

6       (a) FINDINGS.—Congress finds that—

7           (1) the Internet of Things refers to the growing  
8 number of connected and interconnected devices;

9           (2) estimates indicate that more than  
10 125,000,000,000 devices will be connected to the  
11 internet by 2030;

12           (3) the Internet of Things has the potential to  
13 generate trillions of dollars in new economic activity  
14 around the world in the transportation, energy, agri-  
15 culture, manufacturing, and health care sectors and  
16 in other sectors that are critical to the growth of the  
17 gross domestic product of the United States;

18           (4) businesses across the United States can de-  
19 velop new services and products, improve the effi-  
20 ciency of operations and logistics, cut costs, improve  
21 worker and public safety, and pass savings on to  
22 consumers by utilizing the Internet of Things and  
23 related innovations;

24           (5) the Internet of Things will—

25               (A) be vital in furthering innovation and  
26 the development of emerging technologies; and

1 (B) play a key role in developing artificial  
2 intelligence and advanced computing capabili-  
3 ties;

4 (6) the United States leads the world in the de-  
5 velopment of technologies that support the internet,  
6 the United States technology sector is well-posi-  
7 tioned to lead in the development of technologies for  
8 the Internet of Things, and the appropriate  
9 prioritization of a national strategy with respect to  
10 the Internet of Things would strengthen that posi-  
11 tion;

12 (7) the Federal Government can implement this  
13 technology to better deliver services to the public;  
14 and

15 (8) the Senate unanimously passed Senate Res-  
16 olution 110, 114th Congress, agreed to March 24,  
17 2015, calling for a national strategy for the develop-  
18 ment of the Internet of Things.

19 (b) SENSE OF CONGRESS.—It is the sense of Con-  
20 gress that policies governing the Internet of Things  
21 should—

22 (1) promote solutions with respect to the Inter-  
23 net of Things that are secure, scalable, interoper-  
24 able, industry-driven, and standards-based; and

1           (2) maximize the development and deployment  
2           of the Internet of Things to benefit all stakeholders,  
3           including businesses, governments, and consumers.

4 **SEC. 3. DEFINITIONS.**

5           In this Act:

6           (1) COMMISSION.—The term “Commission”  
7           means the Federal Communications Commission.

8           (2) SECRETARY.—The term “Secretary” means  
9           the Secretary of Commerce.

10          (3) STEERING COMMITTEE.—The term “steer-  
11          ing committee” means the steering committee estab-  
12          lished under section 4(e)(1).

13          (4) WORKING GROUP.—The term “working  
14          group” means the working group convened under  
15          section 4(a).

16 **SEC. 4. FEDERAL WORKING GROUP.**

17          (a) IN GENERAL.—The Secretary shall convene a  
18          working group of Federal stakeholders for the purpose of  
19          providing recommendations and a report to Congress re-  
20          lating to the aspects of the Internet of Things described  
21          in subsection (b).

22          (b) DUTIES.—The working group shall—

23               (1) identify any Federal regulations, statutes,  
24               grant practices, budgetary or jurisdictional chal-  
25               lenges, and other sector-specific policies that are in-

1       hibiting, or could inhibit, the development or deploy-  
2       ment of the Internet of Things;

3           (2) consider policies or programs that encour-  
4       age and improve coordination among Federal agen-  
5       cies that have responsibilities that are relevant to  
6       the objectives of this Act;

7           (3) consider any findings or recommendations  
8       made by the steering committee and, where appro-  
9       priate, act to implement those recommendations;

10          (4) examine—

11               (A) how Federal agencies can benefit from  
12       utilizing the Internet of Things;

13               (B) the use of Internet of Things tech-  
14       nology by Federal agencies as of the date on  
15       which the working group performs the examina-  
16       tion;

17               (C) the preparedness and ability of Federal  
18       agencies to adopt Internet of Things technology  
19       as of the date on which the working group per-  
20       forms the examination and in the future; and

21               (D) any additional security measures that  
22       Federal agencies may need to take to—

23                       (i) safely and securely use the Inter-  
24       net of Things, including measures that en-

1                   sure the security of critical infrastructure;  
2                   and

3                   (ii) enhance the resiliency of Federal  
4                   systems against cyber threats to the Inter-  
5                   net of Things; and

6           (5) in carrying out the examinations required  
7   under clauses (i) and (ii) of paragraph (4)(D), en-  
8   sure to the maximum extent possible the coordina-  
9   tion of the current and future activities of the Fed-  
10   eral Government relating to security with respect to  
11   the Internet of Things.

12   (c) AGENCY REPRESENTATIVES.—In convening the  
13   working group under subsection (a), the Secretary shall  
14   have discretion to appoint representatives from Federal  
15   agencies and departments as appropriate and shall specifi-  
16   cally consider seeking representation from—

17           (1) the Department of Commerce, including—

18                   (A) the National Telecommunications and  
19                   Information Administration;

20                   (B) the National Institute of Standards  
21                   and Technology; and

22                   (C) the National Oceanic and Atmospheric  
23                   Administration;

24           (2) the Department of Transportation;

25           (3) the Department of Homeland Security;

- 1 (4) the Office of Management and Budget;
- 2 (5) the National Science Foundation;
- 3 (6) the Commission;
- 4 (7) the Federal Trade Commission;
- 5 (8) the Office of Science and Technology Policy;
- 6 (9) the Department of Energy; and
- 7 (10) the Federal Energy Regulatory Commis-
- 8 sion.

9 (d) NONGOVERNMENTAL STAKEHOLDERS.—The  
10 working group shall consult with nongovernmental stake-  
11 holders with expertise relating to the Internet of Things,  
12 including—

- 13 (1) the steering committee;
- 14 (2) information and communications technology  
15 manufacturers, suppliers, service providers, and ven-  
16 dors;
- 17 (3) subject matter experts representing indus-  
18 trial sectors other than the technology sector that  
19 can benefit from the Internet of Things, including  
20 the transportation, energy, agriculture, and health  
21 care sectors;
- 22 (4) small, medium, and large businesses;
- 23 (5) think tanks and academia;
- 24 (6) nonprofit organizations and consumer  
25 groups;

- 1 (7) security experts;
- 2 (8) rural stakeholders; and
- 3 (9) other stakeholders with relevant expertise,
- 4 as determined by the Secretary.

5 (e) STEERING COMMITTEE.—

- 6 (1) ESTABLISHMENT.—There is established
- 7 within the Department of Commerce a steering com-
- 8 mittee to advise the working group.

- 9 (2) DUTIES.—The steering committee shall ad-
- 10 vise the working group with respect to—

- 11 (A) the identification of any Federal regu-
- 12 lations, statutes, grant practices, programs,
- 13 budgetary or jurisdictional challenges, and
- 14 other sector-specific policies that are inhibiting,
- 15 or could inhibit, the development of the Internet
- 16 of Things;

- 17 (B) situations in which the use of the
- 18 Internet of Things is likely to deliver significant
- 19 and scalable economic and societal benefits to
- 20 the United States, including benefits from or
- 21 to—

- 22 (i) smart traffic and transit tech-
- 23 nologies;
- 24 (ii) augmented logistics and supply
- 25 chains;



- 1 (iii) sustainable infrastructure;
- 2 (iv) precision agriculture;
- 3 (v) environmental monitoring;
- 4 (vi) public safety; and
- 5 (vii) health care;

6 (C) whether adequate spectrum is available  
7 to support the growing Internet of Things and  
8 what legal or regulatory barriers may exist to  
9 providing any spectrum needed in the future;

10 (D) policies, programs, or multi-stake-  
11 holder activities that—

12 (i) promote or are related to the pri-  
13 vacy of individuals who use or are affected  
14 by the Internet of Things;

15 (ii) may enhance the security of the  
16 Internet of Things, including the security  
17 of critical infrastructure;

18 (iii) may protect users of the Internet  
19 of Things; and

20 (iv) may encourage coordination  
21 among Federal agencies with jurisdiction  
22 over the Internet of Things;

23 (E) the opportunities and challenges asso-  
24 ciated with the use of Internet of Things tech-  
25 nology by small businesses; and

1 (F) any international proceeding, inter-  
2 national negotiation, or other international mat-  
3 ter affecting the Internet of Things to which  
4 the United States is or should be a party.

5 (3) MEMBERSHIP.—The Secretary shall appoint  
6 to the steering committee members representing a  
7 wide range of stakeholders outside of the Federal  
8 Government with expertise relating to the Internet  
9 of Things, including—

10 (A) information and communications tech-  
11 nology manufacturers, suppliers, service pro-  
12 viders, and vendors;

13 (B) subject matter experts representing in-  
14 dustrial sectors other than the technology sector  
15 that can benefit from the Internet of Things,  
16 including the transportation, energy, agri-  
17 culture, and health care sectors;

18 (C) small, medium, and large businesses;

19 (D) think tanks and academia;

20 (E) nonprofit organizations and consumer  
21 groups;

22 (F) security experts;

23 (G) rural stakeholders; and

24 (H) other stakeholders with relevant exper-  
25 tise, as determined by the Secretary.

1           (4) REPORT.—Not later than 1 year after the  
2           date of enactment of this Act, the steering com-  
3           mittee shall submit to the working group a report  
4           that includes any findings or recommendations of  
5           the steering committee.

6           (5) INDEPENDENT ADVICE.—

7                   (A) IN GENERAL.—The steering committee  
8           shall set the agenda of the steering committee  
9           in carrying out the duties of the steering com-  
10          mittee under paragraph (2).

11                   (B) SUGGESTIONS.—The working group  
12          may suggest topics or items for the steering  
13          committee to study, and the steering committee  
14          shall take those suggestions into consideration  
15          in carrying out the duties of the steering com-  
16          mittee.

17                   (C) REPORT.—The steering committee  
18          shall ensure that the report submitted under  
19          paragraph (4) is the result of the independent  
20          judgment of the steering committee.

21           (6) *NO COMPENSATION FOR MEMBERS.*—*A mem-*  
22          *ber of the steering committee shall serve without com-*  
23          *ensation.*

24           ~~(6)~~(7) TERMINATION.—The steering committee  
25          shall terminate on the date on which the working

1 group submits the report under subsection (f) ~~un-~~  
 2 less, on or before that date, the Secretary files a new  
 3 charter for the steering committee under section 9(e)  
 4 of the Federal Advisory Committee Act (5 U.S.C.  
 5 App.).

6 (f) REPORT TO CONGRESS.—

7 (1) IN GENERAL.—Not later than 18 months  
 8 after the date of enactment of this Act, the working  
 9 group shall submit to Congress a report that in-  
 10 cludes—

11 (A) the findings and recommendations of  
 12 the working group with respect to the duties of  
 13 the working group under subsection (b);

14 (B) the report submitted by the steering  
 15 committee under subsection (e)(4), as the re-  
 16 port was received by the working group;

17 (C) recommendations for action or reasons  
 18 for inaction, as applicable, with respect to each  
 19 recommendation made by the steering com-  
 20 mittee in the report submitted under subsection  
 21 (e)(4); and

22 (D) an accounting of any progress made  
 23 by Federal agencies to implement recommenda-  
 24 tions made by the working group or the steer-  
 25 ing committee.

1           (2) COPY OF REPORT.—The working group  
2       shall submit a copy of the report described in para-  
3       graph (1) to—

4                   (A) the Committee on Commerce, Science,  
5                   and Transportation and the Committee on En-  
6                   ergy and Natural Resources of the Senate;

7                   (B) the Committee on Energy and Com-  
8                   merce of the House of Representatives; and

9                   (C) any other committee of Congress, upon  
10       request to the working group.

11 **SEC. 5. ASSESSING SPECTRUM NEEDS.**

12       (a) IN GENERAL.—The Commission, in consultation  
13 with the National Telecommunications and Information  
14 Administration, shall issue a notice of inquiry seeking pub-  
15 lic comment on the current, as of the date of enactment  
16 of this Act, and future spectrum needs to enable better  
17 connectivity relating to the Internet of Things.

18       (b) REQUIREMENTS.—In issuing the notice of inquiry  
19 under subsection (a), the Commission shall seek comments  
20 that consider and evaluate—

21                   (1) whether adequate spectrum is available, or  
22       is planned for allocation, for commercial wireless  
23       services that could support the growing Internet of  
24       Things;

1           (2) if adequate spectrum is not available for the  
2           purposes described in paragraph (1), how to ensure  
3           that adequate spectrum is available for increased de-  
4           mand with respect to the Internet of Things;

5           (3) what regulatory barriers may exist to pro-  
6           viding any needed spectrum that would support uses  
7           relating to the Internet of Things; and

8           (4) what the role of unlicensed and licensed  
9           spectrum is and will be in the growth of the Internet  
10          of Things.

11         (c) REPORT.—Not later than 1 year after the date  
12         of enactment of this Act, the Commission shall submit to  
13         the Committee on Commerce, Science, and Transportation  
14         of the Senate and the Committee on Energy and Com-  
15         merce of the House of Representatives a report summa-  
16         rizing the comments submitted in response to the notice  
17         of inquiry issued under subsection (a).



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116TH CONGRESS  
1ST Session

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[Report No. 116–179]

**A BILL**

To ensure appropriate prioritization, spectrum planning, and interagency coordination to support the Internet of Things.

DECEMBER 17, 2019

Reported with amendments