

116TH CONGRESS
1ST SESSION

S. _____

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

IN THE SENATE OF THE UNITED STATES

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 _____

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,*

3 **SECTION 1. SHORT TITLE.**

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

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

8 (a) FINDINGS.—Congress finds that—

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

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

4 (3) the Internet of Things has the potential to
5 generate trillions of dollars in new economic activity
6 around the world in the transportation, energy, agri-
7 culture, manufacturing, and health care sectors and
8 in other sectors that are critical to the growth of the
9 gross domestic product of the United States;

10 (4) businesses across the United States can de-
11 velop new services and products, improve the effi-
12 ciency of operations and logistics, cut costs, improve
13 worker and public safety, and pass savings on to
14 consumers by utilizing the Internet of Things and
15 related innovations;

16 (5) the Internet of Things will—

17 (A) be vital in furthering innovation and
18 the development of emerging technologies; and

19 (B) play a key role in developing artificial
20 intelligence and advanced computing capabili-
21 ties;

22 (6) the United States leads the world in the de-
23 velopment of technologies that support the internet,
24 the United States technology sector is well-posi-
25 tioned to lead in the development of technologies for

1 the Internet of Things, and the appropriate
2 prioritization of a national strategy with respect to
3 the Internet of Things would strengthen that posi-
4 tion;

5 (7) the Federal Government can implement this
6 technology to better deliver services to the public;
7 and

8 (8) the Senate unanimously passed Senate Res-
9 olution 110, 114th Congress, agreed to March 24,
10 2015, calling for a national strategy for the develop-
11 ment of the Internet of Things.

12 (b) SENSE OF CONGRESS.—It is the sense of Con-
13 gress that policies governing the Internet of Things
14 should—

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

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

21 **SEC. 3. DEFINITIONS.**

22 In this Act:

23 (1) COMMISSION.—The term “Commission”
24 means the Federal Communications Commission.

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

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

6 (4) WORKING GROUP.—The term “working
7 group” means the working group convened under
8 section 4(a).

9 **SEC. 4. FEDERAL WORKING GROUP.**

10 (a) IN GENERAL.—The Secretary shall convene a
11 working group of Federal stakeholders for the purpose of
12 providing recommendations and a report to Congress re-
13 lating to the aspects of the Internet of Things described
14 in subsection (b).

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

16 (1) identify any Federal regulations, statutes,
17 grant practices, budgetary or jurisdictional chal-
18 lenges, and other sector-specific policies that are in-
19 hibiting, or could inhibit, the development or deploy-
20 ment of the Internet of Things;

21 (2) consider policies or programs that encour-
22 age and improve coordination among Federal agen-
23 cies that have responsibilities that are relevant to
24 the objectives of this Act;

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

4 (4) examine—

5 (A) how Federal agencies can benefit from
6 utilizing the Internet of Things;

7 (B) the use of Internet of Things tech-
8 nology by Federal agencies as of the date on
9 which the working group performs the examina-
10 tion;

11 (C) the preparedness and ability of Federal
12 agencies to adopt Internet of Things technology
13 as of the date on which the working group per-
14 forms the examination and in the future; and

15 (D) any additional security measures that
16 Federal agencies may need to take to—

17 (i) safely and securely use the Inter-
18 net of Things, including measures that en-
19 sure the security of critical infrastructure;
20 and

21 (ii) enhance the resiliency of Federal
22 systems against cyber threats to the Inter-
23 net of Things; and

24 (5) in carrying out the examinations required
25 under clauses (i) and (ii) of paragraph (4)(D), en-

1 sure to the maximum extent possible the coordina-
2 tion of the current and future activities of the Fed-
3 eral Government relating to security with respect to
4 the Internet of Things.

5 (c) AGENCY REPRESENTATIVES.—In convening the
6 working group under subsection (a), the Secretary shall
7 have discretion to appoint representatives from Federal
8 agencies and departments as appropriate and shall specifi-
9 cally consider seeking representation from—

10 (1) the Department of Commerce, including—

11 (A) the National Telecommunications and
12 Information Administration;

13 (B) the National Institute of Standards
14 and Technology; and

15 (C) the National Oceanic and Atmospheric
16 Administration;

17 (2) the Department of Transportation;

18 (3) the Department of Homeland Security;

19 (4) the Office of Management and Budget;

20 (5) the National Science Foundation;

21 (6) the Commission;

22 (7) the Federal Trade Commission;

23 (8) the Office of Science and Technology Policy;

24 (9) the Department of Energy; and

1 (10) the Federal Energy Regulatory Commis-
2 sion.

3 (d) NONGOVERNMENTAL STAKEHOLDERS.—The
4 working group shall consult with nongovernmental stake-
5 holders with expertise relating to the Internet of Things,
6 including—

7 (1) the steering committee;

8 (2) information and communications technology
9 manufacturers, suppliers, service providers, and ven-
10 dors;

11 (3) subject matter experts representing indus-
12 trial sectors other than the technology sector that
13 can benefit from the Internet of Things, including
14 the transportation, energy, agriculture, and health
15 care sectors;

16 (4) small, medium, and large businesses;

17 (5) think tanks and academia;

18 (6) nonprofit organizations and consumer
19 groups;

20 (7) security experts;

21 (8) rural stakeholders; and

22 (9) other stakeholders with relevant expertise,
23 as determined by the Secretary.

24 (e) STEERING COMMITTEE.—

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

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

6 (A) the identification of any Federal regu-
7 lations, statutes, grant practices, programs,
8 budgetary or jurisdictional challenges, and
9 other sector-specific policies that are inhibiting,
10 or could inhibit, the development of the Internet
11 of Things;

12 (B) situations in which the use of the
13 Internet of Things is likely to deliver significant
14 and scalable economic and societal benefits to
15 the United States, including benefits from or
16 to—

17 (i) smart traffic and transit tech-
18 nologies;

19 (ii) augmented logistics and supply
20 chains;

21 (iii) sustainable infrastructure;

22 (iv) precision agriculture;

23 (v) environmental monitoring;

24 (vi) public safety; and

25 (vii) health care;

1 (C) whether adequate spectrum is available
2 to support the growing Internet of Things and
3 what legal or regulatory barriers may exist to
4 providing any spectrum needed in the future;

5 (D) policies, programs, or multi-stake-
6 holder activities that—

7 (i) promote or are related to the pri-
8 vacy of individuals who use or are affected
9 by the Internet of Things;

10 (ii) may enhance the security of the
11 Internet of Things, including the security
12 of critical infrastructure;

13 (iii) may protect users of the Internet
14 of Things; and

15 (iv) may encourage coordination
16 among Federal agencies with jurisdiction
17 over the Internet of Things;

18 (E) the opportunities and challenges asso-
19 ciated with the use of Internet of Things tech-
20 nology by small businesses; and

21 (F) any international proceeding, inter-
22 national negotiation, or other international mat-
23 ter affecting the Internet of Things to which
24 the United States is or should be a party.

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

6 (A) information and communications tech-
7 nology manufacturers, suppliers, service pro-
8 viders, and vendors;

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

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

15 (D) think tanks and academia;

16 (E) nonprofit organizations and consumer
17 groups;

18 (F) security experts;

19 (G) rural stakeholders; and

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

22 (4) REPORT.—Not later than 1 year after the
23 date of enactment of this Act, the steering com-
24 mittee shall submit to the working group a report

1 that includes any findings or recommendations of
2 the steering committee.

3 (5) INDEPENDENT ADVICE.—

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

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

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

18 (6) TERMINATION.—The steering committee
19 shall terminate on the date on which the working
20 group submits the report under subsection (f) un-
21 less, on or before that date, the Secretary files a new
22 charter for the steering committee under section 9(c)
23 of the Federal Advisory Committee Act (5 U.S.C.
24 App.).

25 (f) REPORT TO CONGRESS.—

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

5 (A) the findings and recommendations of
6 the working group with respect to the duties of
7 the working group under subsection (b);

8 (B) the report submitted by the steering
9 committee under subsection (e)(4), as the re-
10 port was received by the working group;

11 (C) recommendations for action or reasons
12 for inaction, as applicable, with respect to each
13 recommendation made by the steering com-
14 mittee in the report submitted under subsection
15 (e)(4); and

16 (D) an accounting of any progress made
17 by Federal agencies to implement recommenda-
18 tions made by the working group or the steer-
19 ing committee.

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

23 (A) the Committee on Commerce, Science,
24 and Transportation and the Committee on En-
25 ergy and Natural Resources of the Senate;

1 (B) the Committee on Energy and Com-
2 merce of the House of Representatives; and

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

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

6 (a) IN GENERAL.—The Commission, in consultation
7 with the National Telecommunications and Information
8 Administration, shall issue a notice of inquiry seeking pub-
9 lic comment on the current, as of the date of enactment
10 of this Act, and future spectrum needs to enable better
11 connectivity relating to the Internet of Things.

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

15 (1) whether adequate spectrum is available, or
16 is planned for allocation, for commercial wireless
17 services that could support the growing Internet of
18 Things;

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

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

1 (4) what the role of unlicensed and licensed
2 spectrum is and will be in the growth of the Internet
3 of Things.

4 (c) REPORT.—Not later than 1 year after the date
5 of enactment of this Act, the Commission shall submit to
6 the Committee on Commerce, Science, and Transportation
7 of the Senate and the Committee on Energy and Com-
8 merce of the House of Representatives a report summa-
9 rizing the comments submitted in response to the notice
10 of inquiry issued under subsection (a).