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S. 2664

To establish a voluntary program to identify and promote internet-connected products that meet industry-leading cybersecurity and data security standards, guidelines, best practices, methodologies, procedures, and processes, and for other purposes.

IN THE SENATE OF THE UNITED STATES

OCTOBER 22, 2019

Mr. MARKEY introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

To establish a voluntary program to identify and promote internet-connected products that meet industry-leading cybersecurity and data security standards, guidelines, best practices, methodologies, procedures, and processes, 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 “Cyber Shield Act of
5 2019”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act—

1 (1) the term “Advisory Committee” means the
2 Cyber Shield Advisory Committee established by the
3 Secretary under section 3(a);

4 (2) the term “benchmarks” means standards,
5 guidelines, best practices, methodologies, procedures,
6 and processes;

7 (3) the term “covered product” means a con-
8 sumer-facing physical object that can—

9 (A) connect to the internet or other net-
10 work; and

11 (B)(i) collect, send, or receive data; or

12 (ii) control the actions of a physical object
13 or system;

14 (4) the term “Cyber Shield program” means
15 the voluntary program established by the Secretary
16 under section 4(a)(1); and

17 (5) the term “Secretary” means the Secretary
18 of Commerce.

19 **SEC. 3. CYBER SHIELD ADVISORY COMMITTEE.**

20 (a) **ESTABLISHMENT.**—Not later than 90 days after
21 the date of enactment of this Act, the Secretary shall es-
22 tablish the Cyber Shield Advisory Committee.

23 (b) **DUTIES.**—

24 (1) **IN GENERAL.**—Not later than 1 year after
25 the date of enactment of this Act, the Advisory

1 Committee shall provide recommendations to the
2 Secretary regarding—

3 (A) the format and content of the Cyber
4 Shield labels required to be established under
5 section 4; and

6 (B) the process for identifying, estab-
7 lishing, reporting on, adopting, maintaining,
8 and promoting compliance with the voluntary
9 cybersecurity and data security benchmarks re-
10 quired to be established under section 4.

11 (2) PUBLIC AVAILABILITY OF RECOMMENDA-
12 TIONS.—The Advisory Committee shall publish, and
13 provide the public with an opportunity to comment
14 on, the recommendations provided to the Secretary
15 under paragraph (1).

16 (c) MEMBERS, CHAIR, AND DUTIES.—

17 (1) APPOINTMENT.—

18 (A) IN GENERAL.—The Advisory Com-
19 mittee shall be composed of members appointed
20 by the Secretary from among individuals who
21 are specially qualified to serve on the Advisory
22 Committee based on the education, training, or
23 experience of those individuals.

24 (B) REPRESENTATION.—Members ap-
25 pointed under subparagraph (A) shall include—

1 (i) representatives of the covered
2 products industry, including small, me-
3 dium, and large businesses;

4 (ii) cybersecurity experts, including
5 independent cybersecurity researchers that
6 specialize in areas such as cryptanalysis,
7 hardware and software security, wireless
8 and network security, cloud security, and
9 data privacy;

10 (iii) public interest advocates;

11 (iv) a liaison from the Information Se-
12 curity and Privacy Advisory Board estab-
13 lished under section 21(a) of the National
14 Institute of Standards and Technology Act
15 (15 U.S.C. 278g-4(a)) who is a member of
16 that Board as described in paragraph (3)
17 of such section 21(a);

18 (v) Federal employees with expertise
19 in certification, covered devices, or cyberse-
20 curity, including employees of—

21 (I) the Department of Commerce;

22 (II) the National Institute of
23 Standards and Technology;

24 (III) the Federal Trade Commis-
25 sion;

1 (IV) the Federal Communications
2 Commission; and

3 (V) the Consumer Product Safety
4 Commission; and

5 (vi) an expert who shall ensure that,
6 subject to subsection (e), the Advisory
7 Committee conforms to and complies with
8 the requirements under the Federal Advi-
9 sory Committee Act (5 U.S.C. App.).

10 (C) LIMITATION.—In appointing members
11 under subparagraph (A), the Secretary shall en-
12 sure that—

13 (i) each interest group described in
14 clauses (i), (ii), (iii), and (v) of subpara-
15 graph (B) is proportionally represented on
16 the Advisory Committee, including—

17 (I) businesses of each size de-
18 scribed in clause (i) of that subpara-
19 graph;

20 (II) Federal employees with ex-
21 pertise in each subject described in
22 clause (v) of that subparagraph; and

23 (III) Federal employees from
24 each agency described in subclauses

1 (I) through (V) of clause (v) of that
2 subparagraph; and

3 (ii) no single interest group described
4 in clauses (i), (ii), (iii), and (v) of subpara-
5 graph (B) is represented by a majority of
6 the members of the Advisory Committee.

7 (2) CHAIR.—The Secretary shall designate a
8 member of the Advisory Committee to serve as
9 Chair.

10 (3) PAY.—Members of the Advisory Committee
11 shall serve without pay, except that the Secretary
12 may allow a member, while attending meetings of
13 the Advisory Committee or a subcommittee of the
14 Advisory Committee, per diem, travel, and transpor-
15 tation expenses authorized under section 5703 of
16 title 5, United States Code.

17 (d) SUPPORT STAFF; ADMINISTRATIVE SERVICES.—

18 (1) SUPPORT STAFF.—The Secretary shall pro-
19 vide support staff for the Advisory Committee.

20 (2) ADMINISTRATIVE SERVICES.—Upon the re-
21 quest of the Advisory Committee, the Secretary shall
22 provide any information, administrative services, and
23 supplies that the Secretary considers necessary for
24 the Advisory Committee to carry out the duties and
25 powers of the Advisory Committee.

1 (e) NO TERMINATION.—Section 14 of the Federal
 2 Advisory Committee Act (5 U.S.C. App.) shall not apply
 3 to the Advisory Committee.

4 (f) AUTHORIZATION OF APPROPRIATIONS.—There
 5 are authorized to be appropriated such sums as may be
 6 necessary to carry out this section.

7 **SEC. 4. CYBER SHIELD PROGRAM.**

8 (a) ESTABLISHMENT OF PROGRAM.—

9 (1) IN GENERAL.—The Secretary shall establish
 10 a voluntary program to identify and certify covered
 11 products through voluntary certification and labeling
 12 of, and other forms of communication about, covered
 13 products and subsets of covered products that meet
 14 industry-leading cybersecurity and data security
 15 benchmarks to enhance cybersecurity and protect
 16 data.

17 (2) LABELS.—Labels applied to covered prod-
 18 ucts under the Cyber Shield program—

19 (A) shall be digital and, if feasible, phys-
 20 ical and affixed to the covered product or pack-
 21 aging; and

22 (B) may be in the form of different grades
 23 that display the extent to which a covered prod-
 24 uct meets the industry-leading cybersecurity
 25 and data security benchmarks.

1 (b) CONSULTATION.—Not later than 90 days after
2 the date of enactment of this Act, the Secretary shall es-
3 tablish a process for consulting interested parties, the Sec-
4 retary of Health and Human Services, the Commissioner
5 of Food and Drugs, the Secretary of Homeland Security,
6 and the heads of other Federal agencies in carrying out
7 the Cyber Shield program.

8 (c) DUTIES.—In carrying out the Cyber Shield pro-
9 gram, the Secretary—

10 (1) shall—

11 (A) by convening and consulting interested
12 parties and the heads of other Federal agencies,
13 establish and maintain cybersecurity and data
14 security benchmarks for covered products with
15 the Cyber Shield label to ensure that those cov-
16 ered products perform better than counterparts
17 of those covered products that do not have the
18 Cyber Shield label; and

19 (B) in carrying out subparagraph (A)—

20 (i) engage in an open public review
21 and comment process;

22 (ii) in consultation with the Advisory
23 Committee, identify and apply cybersecu-
24 rity and data security benchmarks to dif-

ferent subsets of covered products based
on, with respect to each such subset—

(I) any cybersecurity and data
security risk relating to covered prod-
ucts in the subset;

(II) the sensitivity of the infor-
mation collected, transmitted, or
stored by covered products in the sub-
set;

(III) the functionality of covered
products in the subset;

(IV) the security practices and
testing procedures used in developing
and manufacturing covered products
in the subset;

(V) the level of expertise, quali-
fications, and professional accredita-
tion of the staff employed by the man-
ufacturers of covered products in the
subset who are responsible for cyber-
security of the covered products; and

(VI) any other criteria the Advi-
sory Committee and Secretary deter-
mine is necessary and appropriate;
and

1 (iii) to the extent possible, incorporate
2 existing cybersecurity and data security
3 benchmarks, such as the baseline of cyber-
4 security features defined in the document
5 entitled “Core Cybersecurity Feature Base-
6 line for Securable IoT Devices: A Starting
7 Point for IoT Device Manufacturers”, pub-
8 lished by the National Institute of Stand-
9 ards and Technology in July 2019, or any
10 successor thereto;

11 (2) may not establish any cybersecurity and
12 data security benchmark under paragraph (1) that
13 is arbitrary, capricious, an abuse of discretion, or
14 otherwise not in accordance with law;

15 (3) shall permit a manufacturer or distributor
16 of a covered product to display a Cyber Shield label
17 reflecting the extent to which the covered product
18 meets the cybersecurity and data security bench-
19 marks established under paragraph (1);

20 (4) shall promote technologies, practices, and
21 policies that—

22 (A) are compliant with the cybersecurity
23 and data security benchmarks established under
24 paragraph (1); and

1 (B) the Secretary determines are the pre-
2 ferred technologies, practices, and policies in
3 the marketplace for—

4 (i) enhancing cybersecurity;

5 (ii) ensuring that cybersecurity is in-
6 corporated in all aspects of the life cycle of
7 a covered product; and

8 (iii) protecting data;

9 (5) shall work to enhance public awareness of
10 the Cyber Shield label, including through public out-
11 reach, education, research and development, and
12 other means;

13 (6) shall preserve the integrity of the Cyber
14 Shield label;

15 (7) if helpful in fulfilling the obligation under
16 paragraph (6), may elect to not treat a covered
17 product as a covered product certified under the
18 Cyber Shield program until the covered product
19 meets appropriate conformity standards, which may
20 include—

21 (A) standards relating to testing by an ac-
22 credited third-party certifying laboratory or
23 other entity in accordance with the Cyber
24 Shield program; and

1 (B) certification by the laboratory or entity
2 described in subparagraph (A) that the covered
3 product meets the applicable cybersecurity and
4 data security benchmarks established under
5 paragraph (1);

6 (8) not less frequently than annually after the
7 date on which the Secretary establishes cybersecurity
8 and data security benchmarks for a covered product
9 category under paragraph (1), shall review, and, if
10 appropriate, update the cybersecurity and data secu-
11 rity benchmarks, for that covered product category;

12 (9) shall solicit comments from interested par-
13 ties and the Advisory Committee before establishing
14 or revising a Cyber Shield covered product category
15 or cybersecurity and data security benchmark (or be-
16 fore the effective date of the establishment or revi-
17 sion of a covered product category or cybersecurity
18 and data security benchmark);

19 (10) upon adoption of a new or revised covered
20 product category or cybersecurity and data security
21 benchmark, shall provide reasonable notice to inter-
22 ested parties of any changes (including effective
23 dates) to covered product categories or cybersecurity
24 and data security benchmarks, along with—

25 (A) an explanation of the changes; and

1 (B) as appropriate, responses to comments
2 submitted by interested parties;

3 (11) shall provide appropriate lead time before
4 the applicable effective date for a new or a signifi-
5 cant revision to a covered product category or cyber-
6 security and data security benchmark, taking into
7 account the timing requirements of the manufac-
8 turing, marketing, and distribution process for any
9 covered product addressed; and

10 (12) may remove the certification of a covered
11 product as a covered product certified under the
12 Cyber Shield program if the manufacturer of the
13 certified covered product falls out of conformity with
14 the benchmarks established under paragraph (1) for
15 the covered product, as determined by the Secretary.

16 (d) DEADLINES.—Not later than 2 years after the
17 date of enactment of this Act, the Secretary shall establish
18 cybersecurity and data security benchmarks for covered
19 products under subsection (c)(1), which shall take effect
20 not later than 60 days after the date on which the Sec-
21 retary establishes the cybersecurity and data security
22 benchmarks.

23 (e) ADMINISTRATION.—The Secretary, in consulta-
24 tion with the Advisory Committee, may enter into a con-

1 tract with a third party to administer the Cyber Shield
2 program if—

3 (1) the third party is an impartial adminis-
4 trator; and

5 (2) entering into the contract improves the cy-
6 bersecurity and data security of covered products.

7 (f) PROGRAM EVALUATION.—

8 (1) IN GENERAL.—Not later than 3 years after
9 the date on which the Secretary establishes cyberse-
10 curity and data security benchmarks for covered
11 products under subsection (c)(1), and not less fre-
12 quently than every 3 years thereafter, the Inspector
13 General of the Department of Commerce shall—

14 (A) evaluate the Cyber Shield program;
15 and

16 (B) submit a report on the results of the
17 evaluation carried out under subparagraph (A)
18 to—

19 (i) the Committee on Commerce,
20 Science, and Transportation of the Senate;
21 and

22 (ii) the Committee on Energy and
23 Commerce of the House of Representa-
24 tives.

1 (2) REQUIREMENTS.—In conducting an evalua-
2 tion under paragraph (1)(A), the Inspector General
3 of the Department of Commerce shall—

4 (A) with respect to the cybersecurity and
5 data security benchmarks established under
6 subsection (c)(1)—

7 (i) evaluate the extent to which the
8 cybersecurity and data security bench-
9 marks address cybersecurity and data se-
10 curity threats; and

11 (ii) assess how the cybersecurity and
12 data security benchmarks have evolved to
13 meet emerging cybersecurity and data se-
14 curity threats;

15 (B) conduct covert testing of covered prod-
16 ucts to evaluate the integrity of certification
17 testing under the Cyber Shield program;

18 (C) assess the costs to businesses that
19 manufacture covered products participating in
20 the Cyber Shield program;

21 (D) evaluate the level of participation in
22 the Cyber Shield program by businesses that
23 manufacture covered products;

1 (E) assess the level of public awareness
 2 and consumer awareness of the Cyber Shield
 3 label;

4 (F) determine whether any private sector
 5 or international cybersecurity certification pro-
 6 grams comparable to the Cyber Shield program
 7 exist; and

8 (G) if any private sector or international
 9 cybersecurity certification programs described
 10 in subparagraph (F) exist, evaluate how each
 11 such private sector or international cybersecu-
 12 rity certification program interacts with and
 13 compares to the Cyber Shield program.

14 (g) AUTHORIZATION OF APPROPRIATIONS.—There
 15 are authorized to be appropriated such sums as may be
 16 necessary to carry out this section.

17 **SEC. 5. CYBER SHIELD DIGITAL COVERED PRODUCT POR-**
 18 **TAL.**

19 (a) IN GENERAL.—The Secretary shall make publicly
 20 available on the website of the Department of Commerce
 21 in a searchable format—

22 (1) a web page providing information about the
 23 Cyber Shield program;

24 (2) a database of covered products certified
 25 under the Cyber Shield program; and

1 (3) contact information for each manufacturer
2 of a covered product certified under the Cyber
3 Shield program that may be used by consumers to
4 contact the manufacturer regarding questions or
5 complaints.

6 (b) REQUIREMENTS.—The database established
7 under subsection (a)(2) shall include—

8 (1) the cybersecurity and data security bench-
9 marks established under section 4(c)(1) for each
10 covered product category; and

11 (2) for each covered product certified under the
12 Cyber Shield program—

13 (A) the certification for the covered prod-
14 uct;

15 (B) the name and manufacturer of the cov-
16 ered product;

17 (C) the contact information for the manu-
18 facturer of the covered product;

19 (D) the functionality of the covered prod-
20 uct;

21 (E) the location of any applicable privacy
22 policy; and

23 (F) any other information that the Sec-
24 retary determines to be necessary and appro-
25 priate.

1 **SEC. 6. RULE OF CONSTRUCTION.**

2 The decision of a manufacturer of a covered product
3 to not participate in the Cyber Shield program shall not
4 affect the liability of the manufacturer for a cybersecurity
5 or data security breach of that covered product.

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