AM	MENDMENT NO	Calendar No
Pu	rpose: In the nature of a subs	titute.
IN	THE SENATE OF THE UNITED	STATES-117th Cong., 1st Sess.
	S. 290	)2
То	modernize Federal information for other pu	· · · · · · · · · · · · · · · · · · ·
R	Referred to the Committee on ordered to be	e printed and
	Ordered to lie on the tal	ble and to be printed
A	Amendment In the Nature to be proposed by	
Viz	Z:	
1	Strike all after the enac	ting clause and insert the fol-
2	lowing:	
3	SECTION 1. SHORT TITLE.	
4	This Act may be cited	as the "Federal Information
5	Security Modernization Act of	f 2021".
6	SEC. 2. TABLE OF CONTENTS.	
7	The table of contents for	this Act is as follows:
	<ul><li>Sec. 1. Short title.</li><li>Sec. 2. Table of contents.</li><li>Sec. 3. Definitions.</li></ul>	
	TITLE I—UPDA	ATES TO FISMA
	Sec. 101. Title 44 amendments. Sec. 102. Amendments to subtitle III o Sec. 103. Actions to enhance Federal in	

Sec. 104. Additional guidance to agencies on FISMA updates.

Sec. 105. Agency requirements to notify entities impacted by incidents.

## TITLE II—IMPROVING FEDERAL CYBERSECURITY

- Sec. 201. Evaluation of effectiveness of implementing standards.
- Sec. 202. Mobile security standards.
- Sec. 203. Quantitative cybersecurity metrics.
- Sec. 204. Data and logging retention for incident response.
- Sec. 205. CISA agency advisors.
- Sec. 206. Federal penetration testing policy.
- Sec. 207. Ongoing threat hunting program.
- Sec. 208. Codifying vulnerability disclosure programs.
- Sec. 209. Implementing presumption of compromise and zero trust architectures.
- Sec. 210. Automation reports.
- Sec. 211. Extension of Federal acquisition security council.
- Sec. 212. Council of the Inspectors General on Integrity and Efficiency dashboard.
- Sec. 213. National security and Department of Defense systems.

## TITLE III—RISK-BASED BUDGET MODEL

- Sec. 301. Definitions.
- Sec. 302. Establishment of risk-based budget model.

## TITLE IV—PILOT PROGRAMS TO ENHANCE FEDERAL CYBERSECURITY

- Sec. 401. Continuous independent evaluation pilot.
- Sec. 402. Active cyber defensive study.
- Sec. 403. Security operations center as a service pilot.

## 1 SEC. 3. DEFINITIONS.

- 2 In this Act, unless otherwise specified:
- 3 (1) Additional cybersecurity proce-
- 4 DURE.—The term "additional cybersecurity proce-
- 5 dure" has the meaning given the term in section
- 6 3552(b) of title 44, United States Code, as amended
- 7 by this Act.
- 8 (2) AGENCY.—The term "agency" has the
- 9 meaning given the term in section 3502 of title 44,
- 10 United States Code.

1	(3) Appropriate congressional commit-
2	TEES.—The term "appropriate congressional com-
3	mittees" means—
4	(A) the Committee on Homeland Security
5	and Governmental Affairs of the Senate;
6	(B) the Committee on Oversight and Re-
7	form of the House of Representatives; and
8	(C) the Committee on Homeland Security
9	of the House of Representatives.
10	(4) DIRECTOR.—The term "Director" means
11	the Director of the Office of Management and Budg-
12	et.
13	(5) Incident.—The term "incident" has the
14	meaning given the term in section 3552(b) of title
15	44, United States Code.
16	(6) NATIONAL SECURITY SYSTEM.—The term
17	"national security system" has the meaning given
18	the term in section 3552(b) of title 44, United
19	States Code.
20	(7) Penetration test.—The term "penetra-
21	tion test" has the meaning given the term in section
22	3552(b) of title 44, United States Code, as amended
23	by this Act.
24	(8) Threat hunting.—The term "threat
25	hunting" means proactively and iteratively searching

1	for threats to systems that evade detection by auto-
2	mated threat detection systems.
3	TITLE I—UPDATES TO FISMA
4	SEC. 101. TITLE 44 AMENDMENTS.
5	(a) Subchapter I Amendments.—Subchapter I of
6	chapter 35 of title 44, United States Code, is amended—
7	(1) in section 3504—
8	(A) in subsection (a)(1)(B)—
9	(i) by striking clause (v) and inserting
10	the following:
11	"(v) confidentiality, disclosure, and sharing
12	of information;";
13	(ii) by redesignating clause (vi) as
14	clause (vii); and
15	(iii) by inserting after clause (v) the
16	following:
17	"(vi) in consultation with the National
18	Cyber Director and the Director of the Cyberse-
19	curity and Infrastructure Security Agency, se-
20	curity of information; and";
21	(B) in subsection (g), by striking para-
22	graph (1) and inserting the following:
23	"(1) with respect to information collected or
24	maintained by or for agencies—

1	"(A) develop and oversee the implementa-
2	tion of policies, principles, standards, and
3	guidelines on privacy, confidentiality, disclosure,
4	and sharing of the information; and
5	"(B) in consultation with the National
6	Cyber Director and the Director of the Cyberse-
7	curity and Infrastructure Security Agency, de-
8	velop and oversee policies, principles, standards,
9	and guidelines on security of the information;
10	and"; and
11	(C) in subsection (h)(1)—
12	(i) in the matter preceding subpara-
13	graph (A)—
14	(I) by inserting "the Director of
15	the Cybersecurity and Infrastructure
16	Security Agency and the National
17	Cyber Director," before "the Direc-
18	tor"; and
19	(II) by inserting a comma before
20	"and the Administrator"; and
21	(ii) in subparagraph (A), by inserting
22	"security and" after "information tech-
23	nology'';
24	(2) in section 3505—

1	(A) in paragraph (3) of the first subsection
2	designated as subsection (c)—
3	(i) in subparagraph (B)—
4	(I) by inserting "the Director of
5	the Cybersecurity and Infrastructure
6	Security Agency, the National Cyber
7	Director, and" before "the Comp-
8	troller General"; and
9	(II) by striking "and" at the end;
10	(ii) in subparagraph (C)(v), by strik-
11	ing the period at the end and inserting ";
12	and"; and
13	(iii) by adding at the end the fol-
14	lowing:
15	"(D) maintained on a continual basis through
16	the use of automation, machine-readable data, and
17	scanning."; and
18	(B) by striking the second subsection des-
19	ignated as subsection (c);
20	(3) in section 3506—
21	(A) in subsection $(b)(1)(C)$ , by inserting ",
22	availability" after "integrity"; and
23	(B) in subsection (h)(3), by inserting "se-
24	curity," after "efficiency,"; and
25	(4) in section 3513—

1	(A) by redesignating subsection (c) as sub-
2	section (d); and
3	(B) by inserting after subsection (b) the
4	following:
5	"(c) Each agency providing a written plan under sub-
6	section (b) shall provide any portion of the written plan
7	addressing information security or cybersecurity to the Di-
8	rector of the Cybersecurity and Infrastructure Security
9	Agency.".
10	(b) Subchapter II Definitions.—
11	(1) In General.—Section 3552(b) of title 44,
12	United States Code, is amended—
13	(A) by redesignating paragraphs (1), (2),
14	(3), $(4)$ , $(5)$ , $(6)$ , and $(7)$ as paragraphs $(2)$ ,
15	(3), (4), (5), (6), (9), and (11), respectively;
16	(B) by inserting before paragraph (2), as
17	so redesignated, the following:
18	"(1) The term 'additional cybersecurity proce-
19	dure' means a process, procedure, or other activity
20	that is established in excess of the information secu-
21	rity standards promulgated under section 11331(b)
22	of title 40 to increase the security and reduce the cy-
23	bersecurity risk of agency systems.";
24	(C) by inserting after paragraph (6), as so
25	redesignated, the following:

1	"(7) The term 'high value asset' means infor-
2	mation or an information system that the head of an
3	agency determines so critical to the agency that the
4	loss or corruption of the information or the loss of
5	access to the information system would have a seri-
6	ous impact on the ability of the agency to perform
7	the mission of the agency or conduct business.
8	"(8) The term 'major incident' has the meaning
9	given the term in guidance issued by the Director
10	under section 3598(a).";
11	(D) by inserting after paragraph (9), as so
12	redesignated, the following:
13	"(10) The term 'penetration test' means a spe-
14	cialized type of assessment that—
15	"(A) is conducted on an information sys-
16	tem or a component of an information system;
17	and
18	"(B) emulates an attack or other exploi-
19	tation capability of a potential adversary, typi-
20	cally under specific constraints, in order to
21	identify any vulnerabilities of an information
22	system or a component of an information sys-
23	tem that could be exploited."; and
24	(E) by inserting after paragraph (11), as
25	so redesignated, the following:

1	"(12) The term 'shared service' means a cen-
2	tralized business or mission capability that is pro-
3	vided to multiple organizations within an agency or
4	to multiple agencies.".
5	(2) Conforming amendments.—
6	(A) HOMELAND SECURITY ACT OF 2002.—
7	Section 1001(c)(1)(A) of the Homeland Secu-
8	rity Act of 2002 (6 U.S.C. 511(1)(A)) is
9	amended by striking "section 3552(b)(5)" and
10	inserting "section 3552(b)".
11	(B) TITLE 10.—
12	(i) Section 2222.—Section 2222(i)(8)
13	of title 10, United States Code, is amended
14	by striking "section 3552(b)(6)(A)" and
15	inserting "section 3552(b)(9)(A)".
16	(ii) Section 2223.—Section
17	2223(c)(3) of title 10, United States Code,
18	is amended by striking "section
19	3552(b)(6)" and inserting "section
20	3552(b)".
21	(iii) Section 2315.—Section 2315 of
22	title 10, United States Code, is amended
23	by striking "section 3552(b)(6)" and in-
24	serting "section 3552(b)".

1	(iv) Section 2339A.—Section
2	2339a(e)(5) of title 10, United States
3	Code, is amended by striking "section
4	3552(b)(6)" and inserting "section
5	3552(b)".
6	(C) High-performance computing act
7	OF 1991.—Section 207(a) of the High-Perform-
8	ance Computing Act of 1991 (15 U.S.C.
9	5527(a)) is amended by striking "section
10	3552(b)(6)(A)(i)" and inserting "section
11	3552(b)(9)(A)(i)".
12	(D) Internet of things cybersecu-
13	RITY IMPROVEMENT ACT OF 2020.—Section 3(5)
14	of the Internet of Things Cybersecurity Im-
15	provement Act of 2020 (15 U.S.C. 278g–3a) is
16	amended by striking "section 3552(b)(6)" and
17	inserting "section 3552(b)".
18	(E) NATIONAL DEFENSE AUTHORIZATION
19	ACT FOR FISCAL YEAR 2013.—Section
20	933(e)(1)(B) of the National Defense Author-
21	ization Act for Fiscal Year 2013 (10 U.S.C.
22	2224 note) is amended by striking "section
23	3542(b)(2)" and inserting "section $3552(b)$ ".
24	(F) IKE SKELTON NATIONAL DEFENSE AU-
25	THORIZATION ACT FOR FISCAL YEAR 2011.—The

1	Ike Skelton National Defense Authorization Act
2	for Fiscal Year 2011 (Public Law 111–383) is
3	amended—
4	(i) in section 806(e)(5) (10 U.S.C
5	2304 note), by striking "section 3542(b)"
6	and inserting "section 3552(b)";
7	(ii) in section 931(b)(3) (10 U.S.C
8	2223 note), by striking "section
9	3542(b)(2)" and inserting "section
10	3552(b)"; and
11	(iii) in section 932(b)(2) (10 U.S.C
12	2224 note), by striking "section
13	3542(b)(2)" and inserting "section
14	3552(b)".
15	(G) E-GOVERNMENT ACT OF 2002.—Sec-
16	tion 301(c)(1)(A) of the E-Government Act of
17	2002 (44 U.S.C. 3501 note) is amended by
18	striking "section 3542(b)(2)" and inserting
19	"section 3552(b)".
20	(H) NATIONAL INSTITUTE OF STANDARDS
21	AND TECHNOLOGY ACT.—Section 20 of the Na
22	tional Institute of Standards and Technology
23	Act (15 U.S.C. 278g-3) is amended—

1	(i) in subsection $(a)(2)$ , by striking
2	"section 3552(b)(5)" and inserting "sec-
3	tion 3552(b)"; and
4	(ii) in subsection (f)—
5	(I) in paragraph (3), by striking
6	"section 3532(1)" and inserting "sec-
7	tion 3552(b)"; and
8	(II) in paragraph (5), by striking
9	"section 3532(b)(2)" and inserting
10	"section 3552(b)".
11	(c) Subchapter II Amendments.—Subchapter II
12	of chapter 35 of title 44, United States Code, is amend-
13	ed—
14	(1) in section 3551—
15	(A) by redesignating paragraphs (3), (4),
16	(5), and (6) as paragraphs (4), (5), (6), and
17	(7), respectively;
18	(B) by inserting after paragraph (2) the
19	following:
20	"(3) recognize the role of the Cybersecurity and
21	Infrastructure Security Agency as the lead entity for
22	operational cybersecurity coordination across the
23	Federal Government;";

1	(C) in paragraph (5), as so redesignated,
2	by striking "diagnose and improve" and insert-
3	ing "integrate, deliver, diagnose, and improve";
4	(D) in paragraph (6), as so redesignated,
5	by striking "and" at the end; and
6	(E) by adding at the end the following:
7	"(8) recognize that each agency has specific
8	mission requirements and, at times, unique cyberse-
9	curity requirements to meet the mission of the agen-
10	cy;
11	"(9) recognize that each agency does not have
12	the same resources to secure agency systems, and an
13	agency should not be expected to have the capability
14	to secure the systems of the agency from advanced
15	adversaries alone; and
16	"(10) recognize that—
17	"(A) a holistic Federal cybersecurity model
18	is necessary to account for differences between
19	the missions and capabilities of agencies; and
20	"(B) in accounting for the differences de-
21	scribed in subparagraph (A) and ensuring over-
22	all Federal cybersecurity—
23	"(i) the Office of Management and
24	Budget is the leader for policy development
25	and oversight of Federal cybersecurity;

1	"(ii) the Cybersecurity and Infrastruc-
2	ture Security Agency is the leader for im-
3	plementing operations at agencies; and
4	"(iii) the National Cyber Director is
5	responsible for developing the overall cy-
6	bersecurity strategy of the United States
7	and advising the President on matters re-
8	lating to cybersecurity.";
9	(2) in section 3553—
10	(A) in subsection (a)—
11	(i) in paragraph (1), by inserting "in
12	coordination with the Director of the Cy-
13	bersecurity and Infrastructure Security
14	Agency and the National Cyber Director,'
15	before "developing and overseeing";
16	(ii) in paragraph (5)—
17	(I) by inserting ", in consultation
18	with the Director of the Cybersecurity
19	and Infrastructure Security Agency
20	and the National Cyber Director," be-
21	fore "agency compliance"; and
22	(II) by striking "and" at the end
23	and
24	(iii) by adding at the end the fol-
25	lowing:

1	"(8) promoting, in consultation with the Direc-
2	tor of the Cybersecurity and Infrastructure Security
3	Agency and the Director of the National Institute of
4	Standards and Technology—
5	"(A) the use of automation to improve
6	Federal cybersecurity and visibility with respect
7	to the implementation of Federal cybersecurity;
8	and
9	"(B) the use of presumption of com-
10	promise and least privilege principles to improve
11	resiliency and timely response actions against
12	incidents on Federal systems.";
13	(B) in subsection (b)—
14	(i) by striking the subsection heading
15	and inserting "Cybersecurity and In-
16	FRASTRUCTURE SECURITY AGENCY";
17	(ii) in the matter preceding paragraph
18	(1), by striking "The Secretary, in con-
19	sultation with the Director" and inserting
20	"The Director of the Cybersecurity and In-
21	frastructure Security Agency, in consulta-
22	tion with the Director and the National
23	Cyber Director";
24	(iii) in paragraph (2)—

1	(I) in subparagraph (A), by in-
2	serting "and reporting requirements
3	under subchapter IV of this title"
4	after "section 3556"; and
5	(II) in subparagraph (D), by
6	striking "the Director or Secretary"
7	and inserting "the Director of the Cy-
8	bersecurity and Infrastructure Secu-
9	rity Agency'';
10	(iv) in paragraph (5), by striking "co-
11	ordinating" and inserting "leading the co-
12	ordination of";
13	(v) in paragraph (8), by striking "the
14	Secretary's discretion" and inserting "the
15	Director of the Cybersecurity and Infra-
16	structure Security Agency's discretion";
17	and
18	(vi) in paragraph (9), by striking "as
19	the Director or the Secretary, in consulta-
20	tion with the Director," and inserting "as
21	the Director of the Cybersecurity and In-
22	frastructure Security Agency";
23	(C) in subsection (c)—
24	(i) in paragraph (4), by striking
25	"and" at the end;

1	(ii) by redesignating paragraph (5) as
2	paragraph (7); and
3	(iii) by inserting after paragraph (4)
4	the following:
5	"(5) a summary of each assessment of Federal
6	risk posture performed under subsection (i);";
7	(D) by redesignating subsections (i), (j),
8	(k), and (l) as subsections (j), (k), (l), and (m)
9	respectively;
10	(E) by inserting after subsection (h) the
11	following:
12	"(i) Federal Risk Assessments.—On an ongoing
13	and continuous basis, the Director of the Cybersecurity
14	and Infrastructure Security Agency shall perform assess-
15	ments of Federal risk posture using any available informa-
16	tion on the cybersecurity posture of agencies, and brief
17	the Director and National Cyber Director on the findings
18	of those assessments including—
19	"(1) the status of agency cybersecurity remedial
20	actions described in section 3554(b)(7);
21	"(2) any vulnerability information relating to
22	the systems of an agency that is known by the agen-
23	cy;
24	"(3) analysis of incident information under sec-
25	tion 3597;

1	"(4) evaluation of penetration testing per-
2	formed under section 3559A;
3	"(5) evaluation of vulnerability disclosure pro-
4	gram information under section 3559B;
5	"(6) evaluation of agency threat hunting re-
6	sults;
7	"(7) evaluation of Federal and non-Federal
8	threat intelligence;
9	"(8) data on agency compliance with standards
10	issued under section 11331 of title 40;
11	"(9) agency system risk assessments performed
12	under section $3554(a)(1)(A)$ ; and
13	"(10) any other information the Secretary de-
14	termines relevant."; and
15	(F) in subsection (j), as so redesignated—
16	(i) by striking "regarding the spe-
17	cific" and inserting "that includes a sum-
18	mary of—
19	"(1) the specific";
20	(ii) in paragraph (1), as so des-
21	ignated, by striking the period at the end
22	and inserting "; and" and
23	(iii) by adding at the end the fol-
24	lowing:

1	"(2) the trends identified in the Federal risk
2	assessment performed under subsection (i).";
3	(3) in section 3554—
4	(A) in subsection (a)—
5	(i) in paragraph (1)—
6	(I) by redesignating subpara-
7	graphs (A), (B), and (C) as subpara-
8	graphs (B), (C), and (D), respectively;
9	(II) by inserting before subpara-
10	graph (B), as so redesignated, the fol-
11	lowing:
12	"(A) on an ongoing and continuous basis,
13	performing agency system risk assessments
14	that—
15	"(i) identify and documents the high
16	value assets of the agency using guidance
17	from the Director;
18	"(ii) evaluate the data assets inven-
19	toried under section 3511 of title 44 for
20	sensitivity to compromises in confiden-
21	tiality, integrity, and availability;
22	"(iii) identify agency systems that
23	have access to or hold the data assets
24	inventoried under section 3511 of title 44;

1	"(iv) evaluate the threats facing agen-
2	cy systems and data, including high value
3	assets, based on Federal and non-Federal
4	cyber threat intelligence products, where
5	available;
6	"(v) evaluate the vulnerability of
7	agency systems and data, including high
8	value assets, including by analyzing—
9	"(I) the results of penetration
10	testing performed by the Department
11	of Homeland Security under section
12	3553(b)(9);
13	$``(\Pi)$ the results of penetration
14	testing performed under section
15	3559A;
16	"(III) information provided to
17	the agency through the vulnerability
18	disclosure program of the agency
19	under section 3559B;
20	"(IV) incidents; and
21	"(V) any other vulnerability in-
22	formation relating to agency systems
23	that is known to the agency;
24	"(vi) assess the impacts of potential
25	agency incidents to agency systems, data,

1	and operations based on the evaluations
2	described in clauses (ii) and (iv) and the
3	agency systems identified under clause
4	(iii); and
5	"(vii) assess the consequences of po-
6	tential incidents occurring on agency sys-
7	tems that would impact systems at other
8	agencies, including due to interconnectivity
9	between different agency systems or oper-
10	ational reliance on the operations of the
11	system or data in the system;";
12	(III) in subparagraph (B), as so
13	redesignated, in the matter preceding
14	clause (i), by striking "providing in-
15	formation" and inserting "using infor-
16	mation from the assessment con-
17	ducted under subparagraph (A), pro-
18	viding, in coordination with the Direc-
19	tor of the Cybersecurity and Infra-
20	structure Security Agency, informa-
21	tion";
22	(IV) in subparagraph (C), as so
23	redesignated—

1	(aa) in clause (ii) by insert-
2	ing "binding" before "oper-
3	ational"; and
4	(bb) in clause (vi), by strik-
5	ing "and" at the end; and
6	(V) by adding at the end the fol-
7	lowing:
8	"(E) providing an update on the ongoing
9	and continuos assessment performed under sub-
10	paragraph (A)—
11	"(i) upon request, to the inspector
12	general of the agency; and
13	"(ii) on a periodic basis, as deter-
14	mined by guidance issued by the Director
15	but not less frequently than once every 2
16	years, to—
17	"(I) the Director;
18	"(II) the Director of the Cyberse-
19	curity and Infrastructure Security
20	Agency; and
21	"(III) the National Cyber Direc-
22	tor;
23	"(F) in consultation with the Director of
24	the Cybersecurity and Infrastructure Security
25	Agency and not less frequently than annually

1	performing an evaluation of whether additional
2	cybersecurity procedures are appropriate for se-
3	curing a system of, or under the supervision of,
4	the agency, which shall—
5	"(i) be completed considering the
6	agency system risk assessment performed
7	under subparagraph (A); and
8	"(ii) include a specific evaluation for
9	high value assets;
10	"(G) not later than 30 days after com-
11	pleting the evaluation performed under sub-
12	paragraph (F), providing the evaluation and an
13	implementation plan, if applicable, for using ad-
14	ditional cybersecurity procedures determined to
15	be appropriate to—
16	"(i) the Director of the Cybersecurity
17	and Infrastructure Security Agency;
18	"(ii) the Director; and
19	"(iii) the National Cyber Director;
20	and
21	"(H) if the head of the agency determines
22	there is need for additional cybersecurity proce-
23	dures, ensuring that those additional cybersecu-
24	rity procedures are reflected in the budget re-
25	quest of the agency in accordance with the risk-

1	based cyber budget model developed pursuant
2	to section 3553(a)(7);";
3	(ii) in paragraph (2)—
4	(I) in subparagraph (A), by in-
5	serting "in accordance with the agen-
6	cy system risk assessment performed
7	under paragraph (1)(A)" after "infor-
8	mation systems";
9	(II) in subparagraph (B)—
10	(aa) by striking "in accord-
11	ance with standards" and insert-
12	ing "in accordance with—
13	"(i) standards"; and
14	(bb) by adding at the end
15	the following:
16	"(ii) the evaluation performed under
17	paragraph $(1)(F)$ ; and
18	"(iii) the implementation plan de-
19	scribed in paragraph (1)(G);"; and
20	(III) in subparagraph (D), by in-
21	serting ", through the use of penetra-
22	tion testing, the vulnerability disclo-
23	sure program established under sec-
24	tion 3559B, and other means," after
25	"periodically";

1	(iii) in paragraph (3)—
2	(I) in subparagraph (A)—
3	(aa) in clause (iii), by strik-
4	ing "and" at the end;
5	(bb) in clause (iv), by add-
6	ing "and" at the end; and
7	(cc) by adding at the end
8	the following:
9	"(v) ensure that—
10	"(I) senior agency information
11	security officers of component agen-
12	cies carry out responsibilities under
13	this subchapter, as directed by the
14	senior agency information security of-
15	ficer of the agency or an equivalent
16	official; and
17	"(II) senior agency information
18	security officers of component agen-
19	cies report to—
20	"(aa) the senior information
21	security officer of the agency or
22	an equivalent official; and
23	"(bb) the Chief Information
24	Officer of the component agency
25	or an equivalent official;"; and

1	(iv) in paragraph (5), by inserting
2	"and the Director of the Cybersecurity and
3	Infrastructure Security Agency' before
4	"on the effectiveness";
5	(B) in subsection (b)—
6	(i) by striking paragraph (1) and in-
7	serting the following:
8	"(1) pursuant to subsection $(a)(1)(A)$ , per-
9	forming ongoing and continuous agency system risk
10	assessments, which may include using guidelines and
11	automated tools consistent with standards and
12	guidelines promulgated under section 11331 of title
13	40, as applicable;";
14	(ii) in paragraph (2)—
15	(I) by striking subparagraph (B)
16	and inserting the following:
17	"(B) comply with the risk-based cyber
18	budget model developed pursuant to section
19	3553(a)(7);"; and
20	(II) in subparagraph (D)—
21	(aa) by redesignating
22	clauses (iii) and (iv) as clauses
23	(iv) and (v), respectively;
24	(bb) by inserting after
25	clause (ii) the following:

1	"(iii) binding operational directives
2	and emergency directives promulgated by
3	the Director of the Cybersecurity and In-
4	frastructure Security Agency under section
5	3553;"; and
6	(ce) in clause (iv), as so re-
7	designated, by striking "as deter-
8	mined by the agency; and" and
9	inserting "as determined by the
10	agency, considering—
11	"(I) the agency risk assessment
12	performed under subsection (a)(1)(A);
13	and
14	"(II) the determinations of ap-
15	plying more stringent standards and
16	additional cybersecurity procedures
17	pursuant to section $11331(e)(1)$ of
18	title 40; and";
19	(iii) in paragraph (5)(A), by inserting
20	", including penetration testing, as appro-
21	priate," after "shall include testing";
22	(iv) in paragraph (6), by striking
23	"planning, implementing, evaluating, and
24	documenting" and inserting "planning and
25	implementing and, in consultation with the

1	Director of the Cybersecurity and Infra-
2	structure Security Agency, evaluating and
3	documenting";
4	(v) by redesignating paragraphs (7)
5	and (8) as paragraphs (8) and (9), respec-
6	tively;
7	(vi) by inserting after paragraph (6)
8	the following:
9	"(7) a process for providing the status of every
10	remedial action and known system vulnerability to
11	the Director and the Director of the Cybersecurity
12	and Infrastructure Security Agency, using automa-
13	tion and machine-readable data to the greatest ex-
14	tent practicable;"; and
15	(vii) in paragraph (8)(C), as so redes-
16	ignated—
17	(I) by striking clause (ii) and in-
18	serting the following:
19	"(ii) notifying and consulting with the
20	Federal information security incident cen-
21	ter established under section 3556 pursu-
22	ant to the requirements of section 3594;";
23	(II) by redesignating clause (iii)
24	as clause (iv);

orming the notifications and required under subchapter and"; and
required under subchapter
_
and"; and
in clause (iv), as so redesign
(aa) in subclause (I), by
ng "and relevant Offices or
ector General'';
(bb) in subclause (II), by
g "and" at the end;
(cc) by striking subclause
and
(dd) by redesignating sub-
e (IV) as subclause (III);
on (e)—
esignating paragraph (2) as
and
iking paragraph (1) and in-
owing:
EPORT.—Not later than 2
nactment of the Federal In-
ernization Act of 2021 and
once every 2 years there-

1	after, using the continuous and ongoing agency sys-
2	tem risk assessment under subsection (a)(1)(A), the
3	head of each agency shall submit to the Director,
4	the Secretary, the Committee on Homeland Security
5	and Governmental Affairs of the Senate, the Com-
6	mittee on Oversight and Reform of the House of
7	Representatives, the Committee on Homeland Secu-
8	rity of the House of Representatives, the appropriate
9	authorization and appropriations committees of Con-
10	gress, the National Cyber Director, and the Comp-
11	troller General of the United States a report that—
12	"(A) summarizes the agency system risk
13	assessment performed under subsection
14	(a)(1)(A);
15	"(B) evaluates the adequacy and effective-
16	ness of information security policies, proce-
17	dures, and practices of the agency to address
18	the risks identified in the agency system risk
19	assessment performed under subsection
20	(a)(1)(A);
21	"(C) summarizes the evaluation and imple-
22	mentation plans described in subparagraphs (F)
23	and (G) of subsection (a)(1) and whether those
24	evaluation and implementation plans call for
25	the use of additional cybersecurity procedures

1	determined to be appropriate by the agency;
2	and
3	"(D) summarizes the status of remedial
4	actions identified by inspector general of the
5	agency, the Comptroller General of the United
6	States, and any other source determined appro-
7	priate by the head of the agency.
8	"(2) Unclassified reports.—Each report
9	submitted under paragraph (1)—
10	"(A) shall be, to the greatest extent prac-
11	ticable, in an unclassified and otherwise uncon-
12	trolled form; and
13	"(B) may include a classified annex.
14	"(3) Access to information.—The head of
15	an agency shall ensure that, to the greatest extent
16	practicable, information is included in the unclassi-
17	fied form of the report submitted by the agency
18	under paragraph (2)(A)."; and
19	(D) in subsection (d)—
20	(i) in paragraph (1), in the matter
21	preceding subparagraph (A), by inserting
22	"and the Director of the Cybersecurity and
23	Infrastructure Security Agency" after "the
24	Director"; and

1	(ii) in paragraph (2) by inserting ",
2	including the reporting procedures estab-
3	lished under section 11315(d) of title 40
4	and subsection (a)(3)(A)(v) of this sec-
5	tion," after "practices";
6	(4) in section 3555—
7	(A) in the section heading, by striking
8	"ANNUAL INDEPENDENT" and inserting
9	"INDEPENDENT";
10	(B) in subsection (a)—
11	(i) in paragraph (1), by inserting
12	"during which a report is required to be
13	submitted under section 3553(c)," after
14	"Each year";
15	(ii) in paragraph (2)(A), by inserting
16	", including by penetration testing and
17	analyzing the vulnerability disclosure pro-
18	gram of the agency' after "information
19	systems"; and
20	(iii) by adding at the end the fol-
21	lowing:
22	"(3) An evaluation under this section may include
23	recommendations for improving the cybersecurity posture
24	of the agency.";
25	(C) in subsection (b)—

1	(i) in the subsection heading, by strik-
2	ing "Auditor" and inserting "Eval-
3	UATOR'';
4	(ii) in paragraph (1)—
5	(I) by striking "annual."; and
6	(II) by striking "auditor" and in-
7	serting "evaluator"; and
8	(iii) in paragraph (2), by striking
9	"independent external auditor" and insert-
10	ing "independent external evaluator";
11	(D) in subsection (e)(1), by inserting "dur-
12	ing which a report is required to be submitted
13	under section 3553(c)" after "Each year";
14	(E) by striking subsection (f) and inserting
15	the following:
16	"(f) Protection of Information.—(1) Agencies,
17	evaluators, and other recipients of information that, if dis-
18	closed, may cause grave harm to the efforts of Federal
19	information security officers, including the appropriate
20	congressional committees, shall take appropriate steps to
21	ensure the protection of that information, including safe-
22	guarding the information from public disclosure.
23	"(2) The protections required under paragraph (1)
24	shall be commensurate with the risk and comply with all
25	applicable laws and regulations.

1	"(3) With respect to information that is not related
2	to national security systems, agencies and evaluators shall
3	make a summary of the information unclassified and pub-
4	licly available, including information that does not iden-
5	tify—
6	"(A) specific information system incidents; or
7	"(B) specific information system
8	vulnerabilities.";
9	(F) in subsection (g)(2)—
10	(i) by striking "this subsection shall"
11	and inserting "this subsection—
12	"(A) shall";
13	(ii) in subparagraph (A), as so des-
14	ignated, by striking the period at the end
15	and inserting "; and"; and
16	(iii) by adding at the end the fol-
17	lowing:
18	"(B) identify any entity that performs an inde-
19	pendent evaluation under subsection (b)."; and
20	(G) by striking subsection (j) and inserting
21	the following:
22	"(j) Guidance.—
23	"(1) In General.—The Director, in consulta-
24	tion with the Director of the Cyber Security and In-
25	frastructure Security Agency, the Chief Information

1	Officers Council, the Council of the Inspectors Gen-
2	eral on Integrity and Efficiency, and other interested
3	parties as appropriate, shall ensure the development
4	of guidance for evaluating the effectiveness of an in-
5	formation security program and practices
6	"(2) Priorities.—The guidance developed
7	under paragraph (1) shall prioritize the identifica-
8	tion of—
9	"(A) the most common threat patterns ex-
10	perienced by each agency;
11	"(B) the security controls that address the
12	threat patterns described in subparagraph (A);
13	and
14	"(C) any other security risks unique to the
15	networks of each agency."; and
16	(5) in section 3556(a)—
17	(A) in the matter preceding paragraph (1),
18	by inserting "within the Cybersecurity and In-
19	frastructure Security Agency" after "incident
20	center"; and
21	(B) in paragraph (4), by striking
22	" $3554$ (b)" and inserting " $3554$ (a)(1)(A)".
23	(d) Conforming Amendments.—
24	(1) Table of sections.—The table of sections
25	for chapter 35 of title 44, United States Code, is

1	amended by striking the item relating to section
2	3555 and inserting the following:
	"3555. Independent evaluation.".
3	(2) OMB REPORTS.—Section 226(c) of the Cy-
4	bersecurity Act of 2015 (6 U.S.C. 1524(c)) is
5	amended—
6	(A) in paragraph (1)(B), in the matter
7	preceding clause (i), by striking "annually
8	thereafter" and inserting "thereafter during the
9	years during which a report is required to be
10	submitted under section 3553(c) of title 44
11	United States Code"; and
12	(B) in paragraph (2)(B), in the matter
13	preceding clause (i)—
14	(i) by striking "annually thereafter"
15	and inserting "thereafter during the years
16	during which a report is required to be
17	submitted under section 3553(c) of title
18	44, United States Code"; and
19	(ii) by striking "the report required
20	under section 3553(c) of title 44, United
21	States Code" and inserting "that report".
22	(3) NIST RESPONSIBILITIES.—Section
23	20(d)(3)(B) of the National Institute of Standards
24	and Technology Act (15 U.S.C. 278g–3(d)(3)(B)) is
25	amended by striking "annual".

1	(e) F'EDERAL SYSTEM INCIDENT RESPONSE.—
2	(1) In General.—Chapter 35 of title 44,
3	United States Code, is amended by adding at the
4	end the following:
5	"SUBCHAPTER IV—FEDERAL SYSTEM
6	INCIDENT RESPONSE
7	"SEC. 3591. DEFINITIONS.
8	"(a) In General.—Except as provided in subsection
9	(b), the definitions under sections 3502 and 3552 shall
10	apply to this subchapter.
11	"(b) Additional Definitions.—As used in this
12	subchapter:
13	"(1) Appropriate reporting entities.—The
14	term 'appropriate reporting entities' means—
15	"(A) the majority and minority leaders of
16	the Senate;
17	"(B) the Speaker and minority leader of
18	the House of Representatives;
19	"(C) the Committee on Homeland Security
20	and Governmental Affairs of the Senate;
21	"(D) the Committee on Oversight and Re-
22	form of the House of Representatives;
23	"(E) the Committee on Homeland Security
24	of the House of Representatives;

1	"(F) the appropriate authorization and ap-
2	propriations committees of Congress;
3	"(G) the Director;
4	"(H) the Director of the Cybersecurity and
5	Infrastructure Security Agency;
6	"(I) the National Cyber Director;
7	"(J) the Comptroller General of the United
8	States; and
9	"(K) the inspector general of any impacted
10	agency.
11	"(2) AWARDEE.—The term 'awardee'—
12	"(A) means a person, business, or other
13	entity that receives a grant from, or is a party
14	to a cooperative agreement with, an agency;
15	and
16	"(B) includes any subgrantee of a person,
17	business, or other entity described in subpara-
18	graph (A).
19	"(3) Breach.—The term 'breach' means an in-
20	cident that causes a high risk to an individual, as
21	determined by the head of an agency in coordination
22	with the Director, due to an exposure of information
23	relating to the individual.
24	"(4) Contractor.—The term 'contractor'
25	means—

1	"(A) a prime contractor of an agency or a
2	subcontractor of a prime contractor of an agen-
3	cy; and
4	"(B) any person or business that collects
5	or maintains information, including personally
6	identifiable information, on behalf of an agency.
7	"(5) Federal information.—The term 'Fed-
8	eral information' means information created, col-
9	lected, processed, maintained, disseminated, dis-
10	closed, or disposed of by or for the Federal Govern-
11	ment in any medium or form.
12	"(6) Federal information system.—The
13	term 'Federal information system' means an infor-
14	mation system used or operated by an agency, a con-
15	tractor, or another organization on behalf of an
16	agency.
17	"(7) Intelligence community.—The term
18	'intelligence community' has the meaning given the
19	term in section 3 of the National Security Act of
20	1947 (50 U.S.C. 3003).
21	"(8) Nationwide consumer reporting
22	AGENCY.—The term 'nationwide consumer reporting
23	agency' means a consumer reporting agency de-
24	scribed in section 603(p) of the Fair Credit Report-
25	ing Act (15 U.S.C. 1681a(p)).

1	"(9) Vulnerability disclosure.—The term
2	'vulnerability disclosure' means a vulnerability iden-
3	tified under section 3559B.
4	"SEC. 3592. NOTIFICATION OF BREACH.
5	"(a) Notification.—As expeditiously as practicable
6	and without unreasonable delay, and in any case not later
7	than 30 days after an agency has a reasonable basis to
8	conclude that a breach has occurred, the head of the agen-
9	cy, in consultation with the senior privacy officer of the
10	agency, shall—
11	"(1) determine whether notice to any individual
12	potentially affected by the breach is appropriate
13	based on an assessment of the risk of harm to the
14	individual that considers—
15	"(A) the nature and sensitivity of the per-
16	sonally identifiable information affected by the
17	breach;
18	"(B) the likelihood of access to and use of
19	the personally identifiable information affected
20	by the breach;
21	"(C) the type of breach; and
22	"(D) any other factors determined by the
23	Director; and
23	Director; and

1	"(2) as appropriate, provide written notice in
2	accordance with subsection (b) to each individual po-
3	tentially affected by the breach—
4	"(A) to the last known mailing address of
5	the individual; or
6	"(B) through an appropriate alternative
7	method of notification that the head of the
8	agency or a designated senior-level individual of
9	the agency selects based on factors determined
10	by the Director.
11	"(b) Contents of Notice.—Each notice of a
12	breach provided to an individual under subsection (a)(2)
13	shall include—
14	"(1) a brief description of the rationale for the
15	determination that notice should be provided under
16	subsection (a);
17	"(2) if possible, a description of the types of
18	personally identifiable information affected by the
19	breach;
20	"(3) contact information of the agency that
21	may be used to ask questions of the agency, which—
22	"(A) shall include an e-mail address or an-
23	other digital contact mechanism; and
24	"(B) may include a telephone number or a
25	website;

1	"(4) information on any remedy being offered
2	by the agency;
3	"(5) any applicable educational materials relat-
4	ing to what individuals can do in response to a
5	breach that potentially affects their personally iden-
6	tifiable information, including relevant information
7	to contact Federal law enforcement agencies and
8	each nationwide consumer reporting agency; and
9	"(6) any other appropriate information, as de-
10	termined by the head of the agency or established in
11	guidance by the Director.
12	"(c) Delay of Notification.—
13	"(1) IN GENERAL.—The Attorney General, the
14	Director of National Intelligence, or the Secretary of
15	Homeland Security may delay a notification required
16	under subsection (a) if the notification would—
17	"(A) impede a criminal investigation or a
18	national security activity;
19	"(B) reveal sensitive sources and methods;
20	"(C) cause damage to national security; or
21	"(D) hamper security remediation actions.
22	"(2) Documentation.—
23	"(A) In GENERAL.—Any delay under para-
24	graph (1) shall be reported in writing to the Di-
25	rector, the Attorney General, the Director of

1 National Intelligence, the Secretary of Home-2 land Security, the Director of the Cybersecurity 3 and Infrastructure Security Agency, and the 4 head of the agency and the inspector general of 5 the agency that experienced the breach. 6 "(B) Contents.—A report required under 7 subparagraph (A) shall include a written state-8 ment from the entity that delayed the notifica-9 tion explaining the need for the delay. 10 "(C) FORM.—The report required under 11 subparagraph (A) shall be unclassified but may 12 include a classified annex. 13 "(3) Renewal.—A delay under paragraph (1) 14 shall be for a period of 60 days and may be renewed. 15 "(d) UPDATE NOTIFICATION.—If an agency determines there is a significant change in the reasonable basis 16 to conclude that a breach occurred or that it is necessary to update the details of the information provided to im-18 19 pacted individuals as described in subsection (b), the agency shall as expeditiously as practicable and without unrea-21 sonable delay, and in any case not later than 30 days after 22 such a determination, notify each individual who received 23 a notification pursuant to subsection (a) of those changes. 24 "(e) Exemption From Notification.—

1	"(1) In general.—The head of an agency, in
2	consultation with the inspector general of the agen-
3	cy, may request an exemption from the Director
4	from complying with the notification requirements
5	under subsection (a) if the information affected by
6	the breach is determined by an independent evalua-
7	tion to be unreadable, including, as appropriate, in-
8	stances in which the information is—
9	"(A) encrypted; and
10	"(B) determined by the Director of the Cy-
11	bersecurity and Infrastructure Security Agency
12	to be of sufficiently low risk of exposure.
13	"(2) Approval.—The Director shall determine
14	whether to grant an exemption requested under
15	paragraph (1) in consultation with—
16	"(A) the Director of the Cybersecurity and
17	Infrastructure Security Agency; and
18	"(B) the Attorney General.
19	"(3) Documentation.—Any exemption grant-
20	ed by the Director under paragraph (1) shall be re-
21	ported in writing to the head of the agency and the
22	inspector general of the agency that experienced the
23	breach and the Director of the Cybersecurity and In-
24	frastructure Security Agency.

1 "(f) Rule of Construction.—Nothing in this sec-2 tion shall be construed to limit— 3 "(1) the Director from issuing guidance relating to notifications or the head of an agency from 4 5 notifying individuals potentially affected by breaches 6 that are not determined to be major incidents; or "(2) the Director from issuing guidance relat-7 8 ing to notifications of major incidents or the head of 9 an agency from providing more information than de-10 scribed in subsection (b) when notifying individuals 11 potentially affected by breaches. 12 "SEC. 3593. CONGRESSIONAL AND EXECUTIVE BRANCH RE-13 PORTS. 14 "(a) Initial Report.— 15 "(1) IN GENERAL.—Not later than 5 days after 16 the date on which an agency has a reasonable basis 17 to conclude that a major incident occurred, the head 18 of the agency impacted by the major incident shall 19 submit to the appropriate reporting entities a writ-20 ten report and, to the extent practicable, provide a 21 briefing to the Committee on Homeland Security 22 and Governmental Affairs of the Senate, the Com-23 mittee on Oversight and Reform of the House of 24 Representatives, the Committee on Homeland Secu-25 rity of the House of Representatives, and the appro-

1	priate authorization and appropriations committees
2	of Congress, taking into account—
3	"(A) the information known at the time of
4	the report;
5	"(B) the sensitivity of the details associ-
6	ated with the major incident; and
7	"(C) the classification level of the informa-
8	tion contained in the report.
9	"(2) Contents.—A report required under
10	paragraph (1) shall include, in a manner that ex-
11	cludes or otherwise reasonably protects personally
12	identifiable information and to the extent permitted
13	by applicable law, including privacy and statistical
14	laws—
15	"(A) a summary of the information avail-
16	able about the major incident, including how
17	the major incident occurred and information re-
18	lating to the major incident as a breach, based
19	on information available to agency officials as
20	of the date on which the agency submits the re-
21	port;
22	"(B) if applicable, a description and any
23	associated documentation of any circumstances
24	necessitating a delay in or exemption to notifi-
25	cation to individuals potentially affected by the

1	major incident under subsection (c) or (e) of
2	section 3592; and
3	"(C) if applicable, an assessment of the
4	impacts to the agency, the Federal Government,
5	or the security of the United States, based on
6	information available to agency officials on the
7	date on which the agency submits the report.
8	"(b) Supplemental Report.—Within a reasonable
9	amount of time, but not later than 30 days after the date
10	on which an agency submits a written report under sub-
11	section (a), the head of the agency shall provide to the
12	appropriate reporting entities written updates on the
13	major incident and, to the extent practicable, provide a
14	briefing to the congressional committees described in sub-
15	section (a)(1), including summaries of—
16	"(1) vulnerabilities, means by which the major
17	incident occurred, and impacts to the agency relat-
18	ing to the major incident;
19	"(2) any risk assessment and subsequent risk-
20	based security implementation of the affected infor-
21	mation system before the date on which the major
22	incident occurred;
23	"(3) the status of compliance of the affected in-
24	formation system with applicable security require-
25	ments at the time of the major incident;

1 "(4) an estimate of the number of individuals 2 potentially affected by the major incident based on 3 information available to agency officials as of the 4 date on which the agency provides the update; 5 "(5) an assessment of the risk of harm to indi-6 viduals potentially affected by the major incident 7 based on information available to agency officials as 8 of the date on which the agency provides the update; 9 "(6) an update to the assessment of the risk to 10 agency operations, or to impacts on other agency or 11 non-Federal entity operations, affected by the major 12 incident based on information available to agency of-13 ficials as of the date on which the agency provides 14 the update; and 15 "(7) the detection, response, and remediation 16 actions of the agency, including any support pro-17 vided by the Cybersecurity and Infrastructure Secu-18 rity Agency under section 3594(d) and status up-19 dates on the notification process described in section 20 3592(a), including any delay or exemption described 21 in subsection (c) or (e), respectively, of section 3592, 22 if applicable. 23 "(c) UPDATE REPORT.—If the agency determines that there is any significant change in the understanding 25 of the agency of the scope, scale, or consequence of a

- 1 major incident for which an agency submitted a written
- 2 report under subsection (a), the agency shall provide an
- 3 updated report to the appropriate reporting entities that
- 4 includes information relating to the change in under-
- 5 standing.
- 6 "(d) Annual Report.—Each agency shall submit as
- 7 part of the annual report required under section
- 8 3554(c)(1) of this title a description of each major inci-
- 9 dent that occurred during the 1-year period preceding the
- 10 date on which the report is submitted.
- 11 "(e) Delay and Exemption Report.—The Direc-
- 12 tor shall submit to the appropriate notification entities an
- 13 annual report on all notification delays and exemptions
- 14 granted pursuant to subsections (c) and (d) of section
- 15 3592.
- 16 "(f) Report Delivery.—Any written report re-
- 17 quired to be submitted under this section may be sub-
- 18 mitted in a paper or electronic format.
- 19 "(g) Threat Briefing.—
- 20 "(1) IN GENERAL.—Not later than 7 days after
- 21 the date on which an agency has a reasonable basis
- 22 to conclude that a major incident occurred, the head
- of the agency, jointly with the National Cyber Direc-
- tor and any other Federal entity determined appro-
- 25 priate by the National Cyber Director, shall provide

1	a briefing to the congressional committees described
2	in subsection (a)(1) on the threat causing the major
3	incident.
4	"(2) Components.—The briefing required
5	under paragraph (1)—
6	"(A) shall, to the greatest extent prac-
7	ticable, include an unclassified component; and
8	"(B) may include a classified component.
9	"(h) Rule of Construction.—Nothing in this sec-
10	tion shall be construed to limit—
11	"(1) the ability of an agency to provide addi-
12	tional reports or briefings to Congress; or
13	"(2) Congress from requesting additional infor-
14	mation from agencies through reports, briefings, or
15	other means.
16	"(i) BINDING OPERATIONAL DIRECTIVE.—If the Di-
17	rector of the Cybersecurity and Infrastructure Security
18	Agency issues a binding operational directive or an emer-
19	gency directive under section 3553, not later than 2 days
20	after the date on which the binding operational directive
21	requires an agency to take an action, the Director of the
22	Cybersecurity and Infrastructure Security Agency shall
23	provide to the appropriate reporting entities the status of
24	the implementation of the binding operational directive at
25	the agency.

1	"SEC. 3594. GOVERNMENT INFORMATION SHARING AND IN-
2	CIDENT RESPONSE.
3	"(a) In General.—
4	"(1) Incident reporting.—The head of each
5	agency shall provide any information relating to any
6	incident, whether the information is obtained by the
7	Federal Government directly or indirectly, to the Cy-
8	bersecurity and Infrastructure Security Agency and
9	the Office of Management and Budget.
10	"(2) Contents.—A provision of information
11	relating to an incident made by the head of an agen-
12	cy under paragraph (1) shall—
13	"(A) include detailed information about
14	the safeguards that were in place when the inci-
15	dent occurred;
16	"(B) whether the agency implemented the
17	safeguards described in subparagraph (A) cor-
18	rectly; and
19	"(C) in order to protect against a similar
20	incident, identify—
21	"(i) how the safeguards described in
22	subparagraph (A) should be implemented
23	differently; and
24	"(ii) additional necessary safeguards.
25	"(3) Information-sharing.—To the greatest
26	extent practicable, the Director of the Cybersecurity

1 and Infrastructure Security Agency shall share in-2 formation relating to an incident with any agencies 3 that may be impacted by the incident. 4 NATIONAL SECURITY SYSTEMS.—Each 5 agency operating or exercising control of a national 6 security system shall share information about inci-7 dents with the Director of the Cybersecurity and In-8 frastructure Security Agency to the extent consistent 9 with standards and guidelines for national security 10 systems issued in accordance with law and as di-11 rected by the President. 12 "(b) Compliance.—The information provided under 13 subsection (a) shall take into account the level of classification of the information and any information sharing 14 15 limitations and protections, such as limitations and protections relating to law enforcement, national security, pri-16 vacy, statistical confidentiality, or other factors deter-17 mined by the Director 18 19 "(c) Incident Response.—Each agency that has a 20 reasonable basis to conclude that a major incident oc-21 curred involving Federal information in electronic medium 22 or form, as defined by the Director and not involving a 23 national security system, regardless of delays from notifi-

cation granted for a major incident, shall coordinate with

1	the Cybersecurity and Infrastructure Security Agency re-
2	garding—
3	"(1) incident response and recovery; and
4	"(2) recommendations for mitigating future in-
5	cidents.
6	"SEC. 3595. RESPONSIBILITIES OF CONTRACTORS AND
7	AWARDEES.
8	"(a) Notification.—
9	"(1) In general.—Any contractor or awardee
10	of an agency shall immediately report to the agency
11	if the contractor or awardee has a reasonable basis
12	to conclude that—
13	"(A) an incident or breach has occurred
14	with respect to Federal information collected
15	used, or maintained by the contractor or award-
16	ee in connection with the contract, grant, or co-
17	operative agreement of the contractor or award-
18	ee;
19	"(B) an incident or breach has occurred
20	with respect to a Federal information system
21	used or operated by the contractor or awardee
22	in connection with the contract, grant, or coop-
23	erative agreement of the contractor or awardee
24	or

1	"(C) the contractor or awardee has re-
2	ceived information from the agency that the
3	contractor or awardee is not authorized to re-
4	ceive in connection with the contract, grant, or
5	cooperative agreement of the contractor or
6	awardee.
7	"(2) Procedures.—
8	"(A) Major incident.—Following a re-
9	port of a breach or major incident by a con-
10	tractor or awardee under paragraph (1), the
11	agency, in consultation with the contractor or
12	awardee, shall carry out the requirements under
13	sections 3592, 3593, and 3594 with respect to
14	the major incident.
15	"(B) Incident.—Following a report of an
16	incident by a contractor or awardee under para-
17	graph (1), an agency, in consultation with the
18	contractor or awardee, shall carry out the re-
19	quirements under section 3594 with respect to
20	the incident.
21	"(b) Effective Date.—This section shall apply on
22	and after the date that is 1 year after the date of enact-
23	ment of the Federal Information Security Modernization

24 Act of 2021.

4		
"SEC	3596	TRAINING

- 2 "(a) Covered Individual Defined.—In this sec-
- 3 tion, the term 'covered individual' means an individual
- 4 who obtains access to Federal information or Federal in-
- 5 formation systems because of the status of the individual
- 6 as an employee, contractor, awardee, volunteer, or intern
- 7 of an agency.
- 8 "(b) Requirement.—The head of each agency shall
- 9 develop training for covered individuals on how to identify
- 10 and respond to an incident, including—
- 11 "(1) the internal process of the agency for re-
- 12 porting an incident; and
- "(2) the obligation of a covered individual to re-
- port to the agency a confirmed major incident and
- any suspected incident involving information in any
- 16 medium or form, including paper, oral, and elec-
- tronic.
- 18 "(c) Inclusion in Annual Training.—The train-
- 19 ing developed under subsection (b) may be included as
- 20 part of an annual privacy or security awareness training
- 21 of an agency.
- 22 "SEC. 3597. ANALYSIS AND REPORT ON FEDERAL INCI-
- DENTS.
- 24 "(a) Definition of Compromise.—In this section,
- 25 the term 'compromise' means—
- 26 "(1) an incident, including a major incident;

1	"(2) a result of a penetration test in which the
2	tester successfully gains access to a system within
3	the standards under section 3559A;
4	"(3) a vulnerability disclosure; or
5	"(4) any other event that the Director of the
6	Cybersecurity and Infrastructure Security Agency
7	determines identifies an exploitable vulnerability in
8	an agency system.
9	"(b) Analysis of Federal Incidents.—
10	"(1) In General.—The Director of the Cyber-
11	security and Infrastructure Security Agency shall
12	perform continuous monitoring of compromises of
13	agencies.
14	"(2) Quantitative and qualitative anal-
15	YSES.—The Director of the Cybersecurity and Infra-
16	structure Security Agency shall develop, in consulta-
17	tion with the Director and the National Cyber Direc-
18	tor, and perform continuous monitoring and quan-
19	titative and qualitative analyses of compromises of
20	agencies, including—
21	"(A) the causes of successful compromises,
22	including—
23	"(i) attacker tactics, techniques, and
24	procedures; and

I	(11) system vulnerabilities, including
2	zero days, unpatched systems, and infor-
3	mation system misconfigurations;
4	"(B) the scope and scale of compromises of
5	agencies;
6	"(C) cross Federal Government root causes
7	of compromises at agencies;
8	"(D) agency incident response, recovery,
9	and remediation actions and the effectiveness of
10	those actions, as applicable; and
11	"(E) lessons learned and recommendations
12	in responding to, recovering from, remediating,
13	and mitigating future incidents.
14	"(3) Automated analysis.—The analyses de-
15	veloped under paragraph (2) shall, to the greatest
16	extent practicable, use machine readable data, auto-
17	mation, and machine learning processes.
18	"(4) Sharing of data and analysis.—
19	"(A) In General.—The Director shall
20	share on an ongoing basis the analyses required
21	under this subsection with agencies and the Na-
22	tional Cyber Director to—
23	"(i) improve the understanding of cy-
24	bersecurity risk of agencies; and

1	"(ii) support the cybersecurity im-
2	provement efforts of agencies.
3	"(B) FORMAT.—In carrying out subpara-
4	graph (A), the Director shall share the anal-
5	yses—
6	"(i) in human-readable written prod-
7	ucts; and
8	"(ii) to the greatest extent practicable
9	in machine-readable formats in order to
10	enable automated intake and use by agen-
11	cies.
12	"(c) Annual Report on Federal Com-
13	PROMISES.—Not later than 2 years after the date of en-
14	actment of this section, and not less frequently than annu-
15	ally thereafter, the Director of the Cybersecurity and In-
16	frastructure Security Agency, in consultation with the Di-
17	rector and other Federal agencies as appropriate, shall
18	submit to the appropriate notification entities a report
19	that includes—
20	"(1) a summary of causes of compromises from
21	across the Federal Government that categorizes
22	those compromises by the items described in para-
23	graphs (1) through (4) of subsection (a);
24	"(2) the quantitative and qualitative analyses of
25	compromises developed under subsection (b)(2), in-

1	cluding specific analysis of breaches, on an agency-
2	by-agency basis and comprehensively across the Fed-
3	eral Government; and
4	"(3) an annex for each agency that includes—
5	"(A) a description of each major incident;
6	"(B) the total number of compromises of
7	the agency; and
8	"(C) a categorization of compromises of
9	the agency by the items described in para-
10	graphs (1) through (4) of subsection (a).
11	"(d) Publication.—A version of each report sub-
12	mitted under subsection (c) shall be made publicly avail-
13	able on the website of the Cybersecurity and Infrastruc-
14	ture Security Agency during the year in which the report
15	is submitted.
16	"(e) Information Provided by Agencies.—
17	"(1) In General.—The analysis required
18	under subsection (b) and each report submitted
19	under subsection (c) shall use information provided
20	by agencies under section 3594(a).
21	"(2) Noncompliance reports.—
22	"(A) In General.—Subject to subpara-
23	graph (B), during any year during which the
24	head of an agency does not provide data for an
25	incident to the Cybersecurity and Infrastructure

1	Security Agency in accordance with section
2	3594(a), the head of the agency, in coordina-
3	tion with the Director of the Cybersecurity and
4	Infrastructure Security Agency and the Direc-
5	tor, shall submit to the appropriate reporting
6	entities a report that includes—
7	"(i) data for the incident; and
8	"(ii) the information described in sub-
9	section (c) with respect to the agency.
10	"(B) Exception for national security
11	SYSTEMS.—The head of an agency that owns or
12	exercises control of a national security system
13	shall not include data for an incident that oc-
14	curs on a national security system in any report
15	submitted under subparagraph (A).
16	"(3) National security system reports.—
17	"(A) In general.—Annually, the head of
18	an agency that operates or exercises control of
19	a national security system shall submit a report
20	that includes the information described in sub-
21	section (c) with respect to the agency to the ex-
22	tent that the submission is consistent with
23	standards and guidelines for national security
24	systems issued in accordance with law and as
25	directed by the President to—

I	"(1) the the majority and minority
2	leaders of the Senate,
3	"(ii) the Speaker and minority leader
4	of the House of Representatives;
5	"(iii) the Committee on Homeland Se-
6	curity and Governmental Affairs of the
7	Senate;
8	"(iv) the Select Committee on Intel-
9	ligence of the Senate;
0	"(v) the Committee on Armed Serv-
1	ices of the Senate;
2	"(vi) the Committee on Oversight and
3	Reform of the House of Representatives;
4	"(vii) the Committee on Homeland
5	Security of the House of Representatives;
6	"(viii) the Permanent Select Com-
7	mittee on Intelligence of the House of Rep-
8	resentatives; and
9	"(ix) the Committee on Armed Serv-
20	ices of the House of Representatives.
21	"(B) Classified form.—A report re-
22	quired under subparagraph (A) may be sub-
23	mitted in a classified form.
24	"(f) REQUIREMENT FOR COMPILING INFORMA-
25	TION.—In publishing the public report required under

- subsection (d), the Director of the Cybersecurity and Infrastructure Security Agency shall sufficiently compile in-3 formation such that no specific incidents of an agency can be identified, except with the concurrence of the Director 4 of the Office of Management and Budget and in consultation with the impacted agency. 6 7 "SEC. 3598. MAJOR INCIDENT DEFINITION. 8 "(a) IN GENERAL.—Not later than 180 days after the date of enactment of the Federal Information Security 10 Management Act of 2021, the Director, in coordination with the Director of the Cybersecurity and Infrastructure 11 12 Security Agency and the National Cyber Director, shall develop and promulgate guidance on the definition of the term 'major incident' for the purposes of subchapter II 14 15 and this subchapter. 16 "(b) REQUIREMENTS.—With respect to the guidance issued under subsection (a), the definition of the term 17 18 'major incident' shall— 19 "(1) include, with respect to any information 20 collected or maintained by or on behalf of an agency 21 or an information system used or operated by an 22 agency or by a contractor of an agency or another 23 organization on behalf of an agency— "(A) any incident the head of the agency 24
- 24 "(A) any incident the head of the agency 25 determines is likely to have an impact on—

1	"(i) the national security, homeland
2	security, or economic security of the
3	United States; or
4	"(ii) the civil liberties, public health
5	and safety, or individual privacy of the
6	people of the United States;
7	"(B) any incident the head of the agency
8	determines likely to result in an inability for the
9	agency, a component of the agency, or the Fed-
10	eral Government, to provide 1 or more critical
11	services;
12	"(C) any incident that the head of an
13	agency, in consultation with the Chief Privacy
14	Officer of the agency, determines involves a
15	high risk incident in accordance with the guid-
16	ance issued under subsection $(c)(1)$ ;
17	"(D) any incident that involves the unau-
18	thorized disclosure of personally identifiable in-
19	formation of not less than 500 individuals, re-
20	gardless of the risk level determined under the
21	guidance issued under subsection $(c)(1)$ ;
22	"(E) any incident the head of the agency
23	determines impacts the operations of a high
24	value asset owned or operated by the agency;

1	"(F) any incident involving the exposure of
2	sensitive agency information to a foreign entity,
3	such as the communications of the head of the
4	agency, the head of a component of the agency,
5	or the direct reports of the head of the agency
6	or the head of a component of the agency; and
7	"(G) any other type of incident determined
8	appropriate by the Director;
9	"(2) stipulate that the Director shall declare a
10	major incident at each agency impacted by an inci-
11	dent if the Director of the Cybersecurity and Infra-
12	structure Security Agency determines that an inci-
13	dent—
14	"(A) occurs at not less than 2 agencies;
15	"(B) is enabled by a common technical
16	root cause, such as a supply chain compromise,
17	a common software or hardware vulnerability;
18	or
19	"(C) is enabled by the related activities of
20	a common threat actor; and
21	"(3) stipulate that, in determining whether an
22	incident constitutes a major incident because that
23	incident—
24	"(A) is any incident described in para-
25	graph (1), the head of an agency shall consult

1	with the Director of the Cybersecurity and In-
2	frastructure Security Agency;
3	"(B) is an incident described in paragraph
4	(1)(A), the head of the agency shall consult
5	with the National Cyber Director; and
6	"(C) is an incident described in subpara-
7	graph (C) or (D) of paragraph (1), the head of
8	the agency shall consult with—
9	"(i) the Privacy and Civil Liberties
10	Oversight Board; and
11	"(ii) the Executive Director of the
12	Federal Trade Commission.
13	"(c) Guidance on Risk to Individuals.—
14	"(1) In general.—Not later than 90 days
15	after the date of enactment of the Federal Informa-
16	tion Security Modernization Act of 2021, the Direc-
17	tor, in coordination with the Director of the Cyber-
18	security and Infrastructure Security Agency, the
19	Privacy and Civil Liberties Oversight Board, and the
20	Executive Director of the Federal Trade Commis-
21	sion, shall develop and issue guidance to agencies
22	that establishes a risk-based framework for deter-
23	mining the level of risk that an incident involving
24	personally identifiable information could result in

I	substantial harm, physical harm, embarrassment, or
2	unfairness to an individual.
3	"(2) RISK LEVELS AND CONSIDERATIONS.—The
4	risk-based framework included in the guidance
5	issued under paragraph (1) shall—
6	"(A) include a range of risk levels, includ-
7	ing a high risk level; and
8	"(B) consider—
9	"(i) any personally identifiable infor-
10	mation that was exposed as a result of an
11	incident;
12	"(ii) the circumstances under which
13	the exposure of personally identifiable in-
14	formation of an individual occurred; and
15	"(iii) whether an independent evalua-
16	tion of the information affected by an inci-
17	dent determines that the information is
18	unreadable, including, as appropriate, in-
19	stances in which the information is—
20	"(I) encrypted; and
21	"(II) determined by the Director
22	of the Cybersecurity and Infrastruc-
23	ture Security Agency to be of suffi-
24	ciently low risk of exposure.
25	"(3) Approval.—

1	(A) IN GENERAL.—The guidance issued
2	under paragraph (1) shall include a process by
3	which the Director, jointly with the Director of
4	the Cybersecurity and Infrastructure Security
5	Agency and the Attorney General, may approve
6	the designation of an incident that would be
7	considered high risk as lower risk if information
8	exposed by the incident is unreadable, as de-
9	scribed in paragraph (2)(B)(iii).
10	"(B) DOCUMENTATION.—The Director
11	shall report any approval of an incident granted
12	by the Director under subparagraph (A) to—
13	"(i) the head of the agency that expe
14	rienced the incident;
15	"(ii) the inspector general of the agen-
16	cy that experienced the incident; and
17	"(iii) the Director of the Cybersecu-
18	rity and Infrastructure Security Agency.
19	"(d) EVALUATION AND UPDATES.—Not later than 2
20	years after the date of enactment of the Federal Informa-
21	tion Security Modernization Act of 2021, and not less fre-
22	quently than every 2 years thereafter, the Director shall
23	submit to the Committee on Homeland Security and Gove
24	ernmental Affairs of the Senate and the Committee or

1	Oversight and Reform of the House of Representatives an
2	evaluation, which shall include—
3	"(1) an update, if necessary, to the guidance
4	issued under subsections (a) and (c);
5	"(2) the definition of the term 'major incident'
6	included in the guidance issued under subsection (a);
7	"(3) an explanation of, and the analysis that
8	led to, the definition described in paragraph (2); and
9	"(4) an assessment of any additional datasets
10	or risk evaluation criteria that should be included in
11	the risk-based framework included in the guidance
12	issued under subsection $(c)(1)$ .".
13	(2) CLERICAL AMENDMENT.—The table of sec-
14	tions for chapter 35 of title 44, United States Code,
15	is amended by adding at the end the following:

"SUBCHAPTER IV—FEDERAL SYSTEM INCIDENT RESPONSE

## 16 SEC. 102. AMENDMENTS TO SUBTITLE III OF TITLE 40.

- 17 (a) Information Technology Modernization
- 18 Centers of Excellence Program Act.—Section
- 19 2(c)(4)(A)(ii) of the Information Technology Moderniza-
- 20 tion Centers of Excellence Program Act (40 U.S.C. 11301
- 21 note) is amended by striking the period at the end and

<sup>&</sup>quot;3591. Definitions.

<sup>&</sup>quot;3592. Notification of breach.

<sup>&</sup>quot;3593. Congressional and Executive Branch reports.

<sup>&</sup>quot;3594. Government information sharing and incident response.

<sup>&</sup>quot;3595. Responsibilities of contractors and awardees.

<sup>&</sup>quot;3596. Training.

<sup>&</sup>quot;3597. Analysis and report on Federal incidents.

<sup>&</sup>quot;3598. Major incident definition.".

1	inserting ", which shall be provided in coordination with
2	the Director of the Cybersecurity and Infrastructure Secu-
3	rity Agency.".
4	(b) Modernizing Government Technology.—
5	Subtitle G of title X of Division A of the National Defense
6	Authorization Act for Fiscal Year 2018 (40 U.S.C. 11301
7	note) is amended—
8	(1) in section 1077(b)—
9	(A) in paragraph (5)(A), by inserting "im-
10	proving the cybersecurity of systems and" be-
11	fore "cost savings activities"; and
12	(B) in paragraph (7)—
13	(i) in the paragraph heading, by strik-
14	ing "CIO" and inserting "CIO";
15	(ii) by striking "In evaluating
16	projects" and inserting the following:
17	"(A) Consideration of Guidance.—In
18	evaluating projects";
19	(iii) in subparagraph (A), as so des-
20	ignated, by striking "under section
21	1094(b)(1)" and inserting "guidance
22	issued by the Director"; and
23	(iv) by adding at the end the fol-
24	lowing:

1	"(B) Consultation.—In using funds
2	under paragraph (3)(A), the Chief Information
3	Officer of the covered agency shall consult with
4	the necessary stakeholders to ensure the project
5	appropriately addresses cybersecurity risks, in-
6	cluding the Director of the Cybersecurity and
7	Infrastructure Security Agency, as appro-
8	priate.".
9	(2) in section 1078—
10	(A) by striking subsection (a) and insert-
11	ing the following:
12	"(a) Definitions.—In this section:
13	"(1) AGENCY.—The term 'agency' has the
14	meaning given the term in section 551 of title 5,
15	United States Code.
16	"(2) High value asset.—The term 'high
17	value asset' has the meaning given the term in sec-
18	tion 3552 of title 44, United States Code.";
19	(B) in subsection (b), by adding at the end
20	the following:
21	"(8) Proposal Evaluation.—The Director
22	shall—
23	"(A) give consideration for the use of
24	amounts in the Fund to improve the security of
25	high value assets; and

1	"(B) require that any proposal for the use
2	of amounts in the Fund includes a cybersecu-
3	rity plan, including a supply chain risk manage-
4	ment plan, to be reviewed by the member of the
5	Technology Modernization Board described in
6	subsection $(c)(5)(C)$ ."; and
7	(C) in subsection (c)—
8	(i) in paragraph (2)(A)(i), by insert-
9	ing ", including a consideration of the im-
10	pact on high value assets" after "oper-
11	ational risks";
12	(ii) in paragraph (5)—
13	(I) in subparagraph (A), by strik-
14	ing "and" at the end;
15	(II) in subparagraph (B), by
16	striking the period at the end and in-
17	serting "and"; and
18	(III) by adding at the end the
19	following:
20	"(C) a senior official from the Cybersecu-
21	rity and Infrastructure Security Agency of the
22	Department of Homeland Security, appointed
23	by the Director."; and
24	(iii) in paragraph (6)(A), by striking
25	"shall be—" and all that follows through

1	"4 employees" and inserting "shall be 4
2	employees".
3	(c) Subchapter I.—Subchapter I of subtitle III of
4	title 40, United States Code, is amended—
5	(1) in section 11302—
6	(A) in subsection (b), by striking "use, se-
7	curity, and disposal of" and inserting "use, and
8	disposal, and, in consultation with the Director
9	of the Cybersecurity and Infrastructure Secu-
10	rity Agency and the National Cyber Director,
11	promote and improve the security, of";
12	(B) in subsection (c)—
13	(i) in paragraph (3)—
14	(I) in subparagraph (A)—
15	(aa) by striking "including
16	data" and inserting "which
17	shall—
18	"(i) include data";
19	(bb) in clause (i), as so des-
20	ignated, by striking ", and per-
21	formance" and inserting "secu-
22	rity, and performance; and"; and
23	(cc) by adding at the end
24	the following:

1	"(ii) specifically denote cybersecurity
2	funding under the risk-based cyber budget
3	model developed pursuant to section 3553
4	(a)(7) of title 44, United States Code.";
5	(II) in subparagraph (B), adding
6	at the end the following:
7	"(iii) The Director shall provide to the
8	National Cyber Director any cybersecurity
9	funding information described in subpara-
10	graph (A)(ii) provided to the Director
11	under clause (ii)."; and
12	(III) in subparagraph (B), in the
13	matter preceding clause (i), by insert-
14	ing "not later than 30 days after the
15	date on which the review under sub-
16	paragraph (A) is completed," before
17	"the Administrator";
18	(C) in subsection (f)—
19	(i) by striking "heads of executive
20	agencies to develop" and inserting "heads
21	of executive agencies to—
22	"(1) develop";
23	(ii) in paragraph (1), as so des-
24	ignated, by striking the period at the end
25	and inserting "; and; and

1	(iii) by adding at the end the fol-
2	lowing:
3	"(2) consult with the Director of the Cybersecu-
4	rity and Infrastructure Security Agency for the de-
5	velopment and use of supply chain security best
6	practices."; and
7	(D) in subsection (h), by inserting ", in-
8	cluding cybersecurity performances," after "the
9	performances"; and
10	(2) in section 11303(b)—
11	(A) in paragraph (2)(B)—
12	(i) in clause (i), by striking "or" at
13	the end;
14	(ii) in clause (ii), by adding "or" at
15	the end; and
16	(iii) by adding at the end the fol-
17	lowing:
18	"(iii) whether the function should be
19	performed by a shared service offered by
20	another executive agency;"; and
21	(B) in paragraph (5)(B)(i), by inserting ",
22	while taking into account the risk-based cyber
23	budget model developed pursuant to section
24	3553 (a)(7) of title 44, United States Code"
25	after "title 31".

1	(d) SUBCHAPTER II.—Subchapter II of subtitle III
2	of title 40, United States Code, is amended—
3	(1) in section 11312(a), by inserting ", includ-
4	ing security risks" after "managing the risks";
5	(2) in section 11313(1), by striking "efficiency
6	and effectiveness" and inserting "efficiency, security,
7	and effectiveness';
8	(3) in section 11315, by adding at the end the
9	following:
10	"(d) Component Agency Chief Information Of-
11	FICERS.—The Chief Information Officer or an equivalent
12	official of a component agency shall report to—
13	"(1) the Chief Information Officer designated
14	under section 3506(a)(2) of title 44 or an equivalent
15	official of the agency under which the component
16	agency is a component; and
17	"(2) the head of the component agency.".(4) in
18	section 11317, by inserting 'security,' before "or
19	schedule"; and
20	(4) in section $11319(b)(1)$ , in the paragraph
21	heading, by striking "CIOS" and inserting
22	CHIEF INFORMATION OFFICER.
23	(e) Subchapter III.—Section 11331 of title 40,
24	United States Code, is amended—

1	(1) in subsection (a), by striking "section
2	3532(b)(1)" and inserting "section 3552(b)";
3	(2) in subsection $(b)(1)(A)$ —
4	(A) by striking "in consultation" and in-
5	serting "in coordination";
6	(B) by striking "the Secretary of Home-
7	land Security' and inserting "the Director of
8	the Cybersecurity and Infrastructure Security
9	Agency"; and
10	(3) by striking subsection (c) and inserting the
11	following:
12	"(c) Application of More Stringent Stand-
13	ARDS.—
13 14	ARDS.—  "(1) IN GENERAL.—The head of an agency
14	"(1) In general.—The head of an agency
14 15	"(1) IN GENERAL.—The head of an agency shall—
<ul><li>14</li><li>15</li><li>16</li></ul>	"(1) In general.—The head of an agency shall—  "(A) evaluate, in consultation with the sen-
<ul><li>14</li><li>15</li><li>16</li><li>17</li></ul>	"(1) IN GENERAL.—The head of an agency shall—  "(A) evaluate, in consultation with the senior agency information security officers the
<ul><li>14</li><li>15</li><li>16</li><li>17</li><li>18</li></ul>	"(1) In general.—The head of an agency shall—  "(A) evaluate, in consultation with the senior agency information security officers the need to employ standards for cost-effective,
<ul><li>14</li><li>15</li><li>16</li><li>17</li><li>18</li><li>19</li></ul>	"(1) IN GENERAL.—The head of an agency shall—  "(A) evaluate, in consultation with the senior agency information security officers the need to employ standards for cost-effective, risk-based information security for all systems,
14 15 16 17 18 19 20	"(1) In general.—The head of an agency shall—  "(A) evaluate, in consultation with the senior agency information security officers the need to employ standards for cost-effective, risk-based information security for all systems, operations, and assets within or under the su-
14 15 16 17 18 19 20 21	"(1) In general.—The head of an agency shall—  "(A) evaluate, in consultation with the senior agency information security officers the need to employ standards for cost-effective, risk-based information security for all systems, operations, and assets within or under the supervision of the agency that are more stringent

I	standards made compulsory and binding by the
2	Director; and
3	"(B) to the greatest extent practicable and
4	if the head of the agency determines that the
5	standards described in subparagraph (A) are
6	necessary, employ those standards.
7	"(2) Evaluation of more stringent stand-
8	ARDS.—In evaluating the need to employ more strin-
9	gent standards under paragraph (1), the head of an
10	agency shall consider available risk information
11	such as—
12	"(A) the status of cybersecurity remedia
13	actions of the agency;
14	"(B) any vulnerability information relating
15	to agency systems that is known to the agency
16	"(C) incident information of the agency;
17	"(D) information from—
18	"(i) penetration testing performed
19	under section 3559A of title 44; and
20	"(ii) information from the verification
21	disclosure program established under sec-
22	tion 3559B of title 44;
23	"(E) agency threat hunting results under
24	section 207 of the Federal Information Security
25	Modernization Act of 2021;

1	"(F) Federal and non-Federal threat intel-
2	ligence;
3	"(G) data on compliance to standards
4	issued under this section;
5	"(H) agency system risk assessments per-
6	formed under section 3554(a)(1)(A) of title 44;
7	and
8	"(I) any other information determined rel-
9	evant by the head of the agency.";
10	(4) in subsection $(d)(2)$ —
11	(A) by striking the paragraph heading and
12	inserting CONSULTATION, NOTICE, AND
13	COMMENT;
14	(B) by inserting "promulgate," before
15	"significantly modify"; and
16	(C) by striking "shall be made after the
17	public is given an opportunity to comment on
18	the Director's proposed decision." and inserting
19	"shall be made—
20	"(A) for a decision to significantly modify
21	or not promulgate such a proposed standard,
22	after the public is given an opportunity to com-
23	ment on the Director's proposed decision;
24	"(B) in consultation with the Chief Infor-
25	mation Officers Council, the Director of the Cy-

1	bersecurity and Infrastructure Security Agency,
2	the National Cyber Director, the Comptroller
3	General of the United States, and the Council
4	of the Inspectors General on Integrity and Effi-
5	ciency;
6	"(C) considering the Federal risk assess-
7	ments performed under section 3553(i) of title
8	44; and
9	"(D) considering the extent to which the
10	proposed standard reduces risk relative to the
11	cost of implementation of the standard."; and
12	(5) by adding at the end the following:
13	"(e) Review of Office of Management and
14	BUDGET GUIDANCE AND POLICY.—
15	"(1) In general.—Not less frequently than
16	once every 3 years, the Director of the Office of
17	Management and Budget, in consultation with the
18	Chief Information Officers Council, the Director of
19	the Cybersecurity and Infrastructure Security Agen-
20	cy, the National Cyber Director, the Comptroller
21	General of the United States, and the Council of the
22	Inspectors General on Integrity and Efficiency shall
23	review the efficacy of the guidance and policy pro-
24	mulgated by the Director in reducing cybersecurity
25	risks, including an assessment of the requirements

1	on agencies to report information to the Director
2	and determine whether any changes to that guidance
3	or policy is appropriate.
4	"(A) The Director shall consider the Fed-
5	eral risk assessment developed under section
6	3553(i) of title 44 as part of the review
7	"(2) UPDATED GUIDANCE.—Not later than 90
8	days after the date of the completion of the review
9	under paragraph (1), the Director of the Office of
10	Management and Budget shall issue updated guid-
11	ance or policy to agencies determined appropriate by
12	the Director, based on the results of the review.
13	"(3) Public Report.—Not later than 30 days
14	after the date of the completion of the review under
15	paragraph (1), the Director of the Office of Manage
16	ment and Budget shall publicly publish a report that
17	includes—
18	"(A) an overview of the guidance and pol-
19	icy currently in effect promulgated under this
20	section;
21	"(B) the cybersecurity risk mitigation, or
22	other cybersecurity benefit, offered by each
23	guidance or policy document described in sub-
24	paragraph (A); and

1 "(C) a summary of the guidance or policy 2 to which changes were determined appropriate 3 during the review and what the changes are an-4 ticipated to include; and 5 "(4) Congressional Briefing.—Not later 6 than 30 days after the date on which a review is 7 completed under paragraph (1), the Director shall 8 provide to the Committee on Homeland Security and 9 Governmental Affairs of the Senate and the Com-10 mittee on Oversight and Reform of the House of 11 Representatives a briefing on the review completed 12 pursuant to (1). 13 AUTOMATED STANDARD **IMPLEMENTATION** 14 Verification.—When the Director of the National Insti-15 tute of Standards and Technology issues a proposed standard pursuant to paragraphs (2) and (3) of section 16 17 20(a) of the National Institute of Standards and Technology Act (15 U.S.C. 278g–3(a)), the Director of the Na-18 19 tional Institute of Standards and Technology shall con-20 sider developing and, if appropriate and practical, develop 21 in consultation with the Director of the Cybersecurity and Infrastructure Security Agency, specifications to enable 23 the automated verification of the implementation of the controls within the standard.".

1	SEC. 103. ACTIONS TO ENHANCE FEDERAL INCIDENT RE-
2	SPONSE.
3	(a) Responsibilities of the Cybersecurity and
4	Infrastructure Security Agency.—
5	(1) In General.—Not later than 180 days
6	after the date of enactment of this Act, the Director
7	of the Cybersecurity and Infrastructure Security
8	Agency shall—
9	(A) develop a plan for the development of
10	the analysis required under section 3597(b) of
11	title 44, United States Code, as added by this
12	Act, and the report required under subsection
13	(c) of that section that includes—
14	(i) a description of any challenges the
15	Director anticipates encountering; and
16	(ii) the use of automation and ma-
17	chine-readable formats for collecting, com-
18	piling, monitoring, and analyzing data; and
19	(B) provide to the appropriate congres-
20	sional committees a briefing on the plan devel-
21	oped under subparagraph (A).
22	(2) Briefing.—Not later than 1 year after the
23	date of enactment of this Act, the Director of the
24	Cybersecurity and Infrastructure Security Agency
25	shall provide to the appropriate congressional com-
26	mittees a briefing on—

1	(A) the execution of the plan required
2	under paragraph (1)(A); and
3	(B) the development of the report required
4	under section 3597(c) of title 44, United States
5	Code, as added by this Act.
6	(b) Responsibilities of the Director of the
7	Office of Management and Budget.—
8	(1) Fisma.—Section 2 of the Federal Informa-
9	tion Security Modernization Act of 2014 (44 U.S.C.
10	3554 note) is amended—
11	(A) by striking subsection (b); and
12	(B) by redesignating subsections (c)
13	through (f) as subsections (b) through (e), re-
14	spectively.
15	(2) Incident data sharing.—
16	(A) In general.—The Director shall de-
17	velop guidance, to be updated not less fre-
18	quently than once every 2 years, on the content,
19	timeliness, and format of the information pro-
20	vided by agencies under section 3594(a) of title
21	44, United States Code, as added by this Act.
22	(B) Requirements.—The guidance devel-
23	oped under subparagraph (A) shall—
24	(i) prioritize the availability of data
25	necessary to understand and analyze—

1	(I) the causes of incidents;
2	(II) the scope and scale of inci-
3	dents within the environments and
4	systems of an agency;
5	(III) a root cause analysis of in-
6	cidents that—
7	(aa) are common across the
8	Federal Government; or
9	(bb) have a Government-
10	wide impact;
11	(IV) agency response, recovery,
12	and remediation actions and the effec-
13	tiveness of those actions; and
14	(V) the impact of incidents;
15	(ii) enable the efficient development
16	of—
17	(I) lessons learned and rec-
18	ommendations in responding to, recov-
19	ering from, remediating, and miti-
20	gating future incidents; and
21	(II) the report on Federal com-
22	promises required under section
23	3597(c) of title 44, United States
24	Code, as added by this Act;

1	(iii) include requirements for the time-
2	liness of data production; and
3	(iv) include requirements for using
4	automation and machine-readable data for
5	data sharing and availability.
6	(3) Guidance on responding to informa-
7	TION REQUESTS.—Not later than 1 year after the
8	date of enactment of this Act, the Director shall de-
9	velop guidance for agencies to implement the re-
10	quirement under section 3594(c) of title 44, United
11	States Code, as added by this Act, to provide infor-
12	mation to other agencies experiencing incidents.
13	(4) STANDARD GUIDANCE AND TEMPLATES.—
14	Not later than 1 year after the date of enactment
15	of this Act, the Director, in consultation with the
16	Director of the Cybersecurity and Infrastructure Se
17	curity Agency, shall develop guidance and templates
18	to be reviewed and, if necessary, updated not less
19	frequently than once every 2 years, for use by Fed-
20	eral agencies in the activities required under sections
21	3592, 3593, and 3596 of title 44, United States
22	Code, as added by this Act.
23	(5) Contractor and grantee guidance.—
24	(A) In general.—Not later than 1 year
25	after the date of enactment of this Act, the Di-

1 rector, in coordination with the Secretary of 2 Homeland Security, the Secretary of Defense, 3 the Administrator of General Services, and the 4 heads of other agencies determined appropriate 5 by the Director, shall issue guidance to Federal 6 agencies on how to deconflict, to the greatest 7 extent practicable, existing regulations, policies, 8 and procedures relating to the responsibilities of 9 contractors and awardees established under sec-10 tion 3595 of title 44, United States Code, as added by this Act. 12 (B) Existing processes.—To the great-13 extent practicable, the guidance issued 14 under subparagraph (A) shall allow contractors 15 and awardees to use existing processes for noti-16 fying Federal agencies of incidents involving in-17 formation of the Federal Government. 18 (6) UPDATED BRIEFINGS.—Not less frequently 19 than once every 2 years, the Director shall provide 20 to the appropriate congressional committees an update on the guidance and templates developed under 22 paragraphs (2) through (4). 23 (c) Update to the Privacy Act of 1974.—Section 552a(b) of title 5, United States Code (commonly known as the "Privacy Act of 1974") is amended—

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21

1	(1) in paragraph (11), by striking "or" at the
2	$\mathrm{end};$
3	(2) in paragraph (12), by striking the period at
4	the end and inserting "; or"; and
5	(3) by adding at the end the following:
6	"(13) to another agency in furtherance of a re-
7	sponse to an incident (as defined in section 3552 of
8	title 44) and pursuant to the information sharing re-
9	quirements in section 3594 of title 44 if the head of
10	the requesting agency has made a written request to
11	the agency that maintains the record specifying the
10	particular parties desired and the activity for which
12	particular portion desired and the activity for which
12 13	the record is sought.".
13	the record is sought.".
13 14	the record is sought.".  SEC. 104. ADDITIONAL GUIDANCE TO AGENCIES ON FISMA
<ul><li>13</li><li>14</li><li>15</li></ul>	the record is sought.".  SEC. 104. ADDITIONAL GUIDANCE TO AGENCIES ON FISMA  UPDATES.
13 14 15 16 17	the record is sought.".  SEC. 104. ADDITIONAL GUIDANCE TO AGENCIES ON FISMA  UPDATES.  Not later than 1 year after the date of enactment
13 14 15 16 17	the record is sought.".  SEC. 104. ADDITIONAL GUIDANCE TO AGENCIES ON FISMA  UPDATES.  Not later than 1 year after the date of enactment of this Act, the Director, in coordination with the Director
13 14 15 16 17 18	the record is sought.".  SEC. 104. ADDITIONAL GUIDANCE TO AGENCIES ON FISMA  UPDATES.  Not later than 1 year after the date of enactment of this Act, the Director, in coordination with the Director of the Cybersecurity and Infrastructure Security Agency,
13 14 15 16 17 18 19	the record is sought.".  SEC. 104. ADDITIONAL GUIDANCE TO AGENCIES ON FISMA  UPDATES.  Not later than 1 year after the date of enactment of this Act, the Director, in coordination with the Director of the Cybersecurity and Infrastructure Security Agency, shall issue guidance for agencies on—
13 14 15 16 17 18 19 20	the record is sought.".  SEC. 104. ADDITIONAL GUIDANCE TO AGENCIES ON FISMA  UPDATES.  Not later than 1 year after the date of enactment of this Act, the Director, in coordination with the Director of the Cybersecurity and Infrastructure Security Agency, shall issue guidance for agencies on—  (1) performing the ongoing and continuous

1	(2) implementing additional cybersecurity pro-
2	cedures, which shall include resources for shared
3	services;
4	(3) establishing a process for providing the sta-
5	tus of each remedial action under section 3554(b)(7)
6	of title 44, United States Code, as amended by this
7	Act, to the Director and the Cybersecurity and In-
8	frastructure Security Agency using automation and
9	machine-readable data, as practicable, which shall
10	include—
11	(A) specific guidance for the use of auto-
12	mation and machine-readable data; and
13	(B) templates for providing the status of
14	the remedial action;
15	(4) interpreting the definition of "high value
16	asset" under section 3552 of title 44, United States
17	Code, as amended by this Act;
18	(5) a requirement to coordinate with inspectors
19	general of agencies to ensure consistent under
20	standing and application of agency policies for the
21	purpose of evaluations by inspectors general; and
22	(6) requiring, as practical and pursuant to sec
23	tion 203, an evaluation of agency cybersecurity
24	using metrics that are—
25	(A) based on outcomes; and

1	(B) based on time.
2	SEC. 105. AGENCY REQUIREMENTS TO NOTIFY ENTITIES
3	IMPACTED BY INCIDENTS.
4	Not later than 180 days after the date of enactment
5	of this Act, the Director shall issue guidance that requires
6	agencies to notify entities that are compelled to share sen-
7	sitive information with the agency of an incident that im-
8	pacts—
9	(1) sensitive information shared with the agen-
10	cy by the entity; or
11	(2) the systems used to the transmit sensitive
12	information described in paragraph (1) to the agen-
13	ey.
14	TITLE II—IMPROVING FEDERAL
15	<b>CYBERSECURITY</b>
16	SEC. 201. EVALUATION OF EFFECTIVENESS OF IMPLE-
17	MENTING STANDARDS.
18	(a) In General.—As a component of the evaluation
19	and report required under section 3555(h) of title 44,
20	United States Code, and not later than 1 year after the
21	date of enactment of this Act, the Comptroller General
22	of the United States shall perform a study that—
23	(1) assesses the implementation of standards
24	promulgated under section 11331(b) of title 40,
25	United States Code, to determine the degree to

1	which agencies use the authority under subsection
2	(c)(1) of section 11331 of title 40, United States
3	Code, as amended by section 102, to customize the
4	standards relative to the risks facing each agency
5	and agency system;
6	(2) assesses the effectiveness of the implemen-
7	tation by agencies of the standards described in
8	paragraph (1), including any standards customized
9	by agencies under subsection (c)(1) of section 11331
10	of title 40, United States Code, as amended by sec-
11	tion 102, in improving agency cybersecurity;
12	(3) examines the quantification of cybersecurity
13	risk in the private sector for any applicability for use
14	by the Federal Government;
15	(4) examines cybersecurity metrics existing as
16	of the date of enactment of this Act used by the Di-
17	rector, the Director of the Cybersecurity and Infra-
18	structure Security Agency, and the heads of other
19	agencies to evaluate the effectiveness of information
20	security policies and practices; and
21	(5) with respect to the standards described in
22	paragraph (1), provides recommendations for—
23	(A) the addition or removal of standards;
24	or
25	(B) the customization of—

1	(i) the standards by agencies under
2	subsection (c)(1) of section 11331 of title
3	40, United States Code, as amended by
4	section 102; or
5	(ii) specific controls within the stand-
6	ards.
7	(b) Incorporation of Study.—The Director shall
8	incorporate the results of the study performed under sub-
9	section (a) into the review of guidance and policy required
10	under subsection (e) of section 11331 of title 40, United
11	States Code, as added by section 102(e) of this Act.
12	(c) Briefing.—Not later than 30 days after the date
13	on which the study performed under subsection (a) is com-
14	pleted, the Comptroller General of the United States shall
15	provide to the appropriate congressional committees a
16	briefing on the study.
17	SEC. 202. MOBILE SECURITY STANDARDS.
18	(a) In General.—Not later than 1 year after the
19	date of enactment of this Act, the Director shall—
20	(1) evaluate mobile application security guid-
21	ance promulgated by the Director; and
22	(2) issue guidance to secure mobile devices, in-
23	cluding for mobile applications, for every agency.
24	(b) Contents.—The guidance issued under sub-
25	section (a)(2) shall include—

1	(1) a requirement, pursuant to section
2	3506(b)(4) of title 44, United States Code, for every
3	agency to maintain a continuous inventory of
4	every—
5	(A) mobile device operated by or on behalf
6	of the agency; and
7	(B) vulnerability identified by the agency
8	associated with a mobile device; and
9	(2) a requirement for every agency to perform
10	continuous evaluation of the vulnerabilities described
11	in paragraph (1)(B) and other risks associated with
12	the use of applications on mobile devices.
13	(c) Information Sharing.—The Director, in co-
14	ordination with the Director of the Cybersecurity and In-
15	frastructure Security Agency, shall issue guidance to
16	agencies for sharing the inventory of the agency required
17	under subsection $(b)(1)$ with the Director of the Cyberse-
18	curity and Infrastructure Security Agency, using automa-
19	tion and machine-readable data to the greatest extent
20	practicable.
21	(d) Briefing.—Not later than 60 days after the date
22	on which the Director issues guidance under subsection
23	(a)(2), the Director, in coordination with the Director of
24	the Cybersecurity and Infrastructure Security Agency,

1	shall provide to the appropriate congressional committees
2	a briefing on the guidance.
3	SEC. 203. QUANTITATIVE CYBERSECURITY METRICS.
4	(a) Establishing Time-based Metrics.—
5	(1) In general.—Not later than 1 year after
6	the date of enactment of this Act, the Director of
7	the Cybersecurity and Infrastructure Security Agen-
8	cy, in consultation with the Director, shall—
9	(A) update the metrics used to measure se-
10	curity under section 3554 of title 44, United
11	States Code, including any metrics developed
12	pursuant to section 224(c) of the Cybersecurity
13	Act of 2015 (6 U.S.C. 1522(c)), to include
14	standardized metrics to quantitatively evaluate
15	and identify trends in agency cybersecurity per-
16	formance, including performance for incident
17	response; and
18	(B) evaluate the metrics described in sub-
19	paragraph (A).
20	(2) QUALITIES.—With respect to the updated
21	metrics required under paragraph (1)—
22	(A) not less than 2 of the metrics shall be
23	time-based; and
24	(B) the metrics may include other measur-
25	able outcomes.

1	(3) EVALUATION.—The evaluation required
2	under paragraph (1)(B) shall evaluate—
3	(A) the amount of time it takes for an
4	agency to detect an incident; and
5	(B) the amount of time that passes be-
6	tween—
7	(i) the detection and remediation of
8	an incident; and
9	(ii) the remediation of an incident and
10	the recovery from the incident.
11	(b) Implementation.—
12	(1) In general.—The Director, in coordina-
13	tion with the Director of the Cybersecurity and In-
14	frastructure Security Agency, shall promulgate guid-
15	ance that requires the use of the updated metrics de-
16	veloped under subsection (a)(1)(A) by every agency
17	over a 4-year period beginning on the date on which
18	the metrics are developed to track trends in the inci-
19	dent response capabilities of agencies.
20	(2) Penetration tests.—On not less than 2
21	occasions during the 2-year period following the date
22	on which guidance is promulgated under paragraph
23	(1), not less than 3 agencies shall be subjected to
24	substantially similar penetration tests in order to

1	validate the utility of the metrics developed under
2	subsection $(a)(1)(A)$ .
3	(3) Database.—The Director of the Cyberse-
4	curity and Infrastructure Security Agency shall de-
5	velop and use a database that—
6	(A) stores agency metrics information; and
7	(B) allows for the performance of cross-
8	agency comparison of agency incident response
9	capability trends.
10	(c) UPDATED METRICS.—
11	(1) In General.—The Director may issue
12	guidance that updates the metrics developed under
13	subsection $(a)(1)(A)$ if the updated metrics—
14	(A) have the qualities described in sub-
15	section $(a)(2)$ ; and
16	(B) can be evaluated under subsection
17	(a)(3).
18	(2) Data sharing.—The guidance issued
19	under paragraph (1) shall require agencies to share
20	with the Director of the Cybersecurity and Infra-
21	structure Security Agency data demonstrating the
22	performance of the agency with the updated metrics
23	included in that guidance against the metrics devel-
24	oped under subsection (a)(1)(A).
25	(d) Congressional Reports.—

1 (1) UPDATED METRICS.—Not later than 30 2 days after the date on which the Director of the Cy-3 bersecurity and Infrastructure Security completes 4 the evaluation required under subsection (a)(1)(B), 5 the Director of the Cybersecurity and Infrastructure 6 Security Agency shall submit to the appropriate con-7 gressional committees a report on the updated 8 metrics developed under subsection (a)(1)(A). 9 (2) Program.—Not later than 180 days after 10 the date on which guidance is promulgated under 11 subsection (b)(1), the Director shall submit to the 12 appropriate congressional committees a report on 13 the results of the use of the updated metrics devel-14 oped under subsection (a)(1)(A) by agencies. 15 SEC. 204. DATA AND LOGGING RETENTION FOR INCIDENT 16 RESPONSE. 17 (a) RECOMMENDATIONS.—Not later than 2 years 18 after the date of enactment of this Act, and not less fre-19 quently than every 2 years thereafter, the Director of the 20 Cybersecurity and Infrastructure Security Agency, in con-21 sultation with the Attorney General, shall submit to the 22 Director recommendations on requirements for logging 23 events on agency systems and retaining other relevant data within the systems and networks of an agency.

1	(b) Contents.—The recommendations provided
2	under subsection (a) shall include—
3	(1) the types of logs to be maintained;
4	(2) the time periods to retain the logs and other
5	relevant data;
6	(3) the time periods for agencies to enable rec-
7	ommended logging and security requirements;
8	(4) how to ensure the confidentiality, integrity,
9	and availability of logs;
10	(5) requirements to ensure that, upon request,
11	in a manner that excludes or otherwise reasonably
12	protects personally identifiable information, and to
13	the extent permitted by applicable law (including
14	privacy and statistical laws), agencies provide logs
15	to—
16	(A) the Director of the Cybersecurity and
17	Infrastructure Security Agency for a cybersecu-
18	rity purpose; and
19	(B) the Federal Bureau of Investigation to
20	investigate potential criminal activity; and
21	(6) requirements to ensure that, subject to com-
22	pliance with statistical laws and other relevant data
23	protection requirements, the highest level security
24	operations center of each agency has visibility into
25	all agency logs.

1 (c) Guidance.—Not later than 90 days after receiv-2 ing the recommendations submitted under subsection (a), 3 the Director, in consultation with the Director of the Cy-4 bersecurity and Infrastructure Security Agency and the 5 Attorney General, shall, as determined to be appropriate 6 by the Director, update guidance to agencies regarding requirements for logging, log retention, log management, 8 sharing of log data with other appropriate agencies, or any other logging activity determined to be appropriate by the 10 Director. SEC. 205. CISA AGENCY ADVISORS. 12 (a) IN GENERAL.—Not later than 120 days after the 13 date of enactment of this Act, the Director of the Cybersecurity and Infrastructure Security Agency shall assign not 14 15 less than 1 cybersecurity professional employed by the Cybersecurity and Infrastructure Security Agency to be the 16 17 Cybersecurity and Infrastructure Security Agency advisor 18 to the Chief Information Officer of each agency. 19 (b) QUALIFICATIONS.—Each advisor assigned under 20 subsection (a) shall have knowledge of— 21 (1) cybersecurity threats facing agencies, in-22 cluding any specific threats to the assigned agency; 23 (2) performing risk assessments of agency sys-24 tems; and

(3) other Federal cybersecurity initiatives.

25

1	(c) Duties.—The duties of each advisor assigned
2	under subsection (a) shall include—
3	(1) providing ongoing assistance and advice, as
4	requested, to the agency Chief Information Officer;
5	(2) serving as an incident response point of
6	contact between the assigned agency and the Cyber-
7	security and Infrastructure Security Agency;
8	(3) familiarizing themselves with agency sys-
9	tems, processes, and procedures to better facilitate
10	support to the agency in responding to incidents;
11	and
12	(4) other duties, as assigned.
13	(d) Limitation.—An advisor assigned under sub-
14	section (a) shall not be a contractor.
15	(e) Multiple Assignments.—One individual advi-
16	sor may be assigned to multiple agency Chief Information
17	Officers under subsection (a).
18	SEC. 206. FEDERAL PENETRATION TESTING POLICY.
19	(a) In General.—Subchapter II of chapter 35 of
20	title 44, United States Code, is amended by adding at the
21	end the following:
22	"§ 3559A. Federal penetration testing
23	"(a) Definitions.—In this section:

"(1) AGENCY OPERATIONAL PLAN.—The term
'agency operational plan' means a plan of an agency
for the use of penetration testing.
"(2) Rules of engagement.—The term
'rules of engagement' means a set of rules estab-
lished by an agency for the use of penetration test-
ing.
"(b) Guidance.—
"(1) In general.—Not later than 180 days
after the date of enactment of this section, the Di-
rector shall issue guidance that—
"(A) requires agencies to use, when and
where appropriate, penetration testing on agen-
cy systems; and
"(B) requires agencies to develop an agen-
cy operational plan and rules of engagement
that meet the requirements under subsection
(e).
"(2) Penetration testing guidance.—The
guidance issued under this section shall—
"(A) permit an agency to use, for the pur-
pose of performing penetration testing—
"(i) a shared service of the agency or
another agency; or

1	"(ii) an external entity, such as a ven-
2	dor; and
3	"(B) require agencies to provide the rules
4	of engagement and results of penetration test-
5	ing to the Director and the Director of the Cy-
6	bersecurity and Infrastructure Security Agency
7	without regard to the status of the entity that
8	performs the penetration testing.
9	"(c) Agency Plans and Rules of Engage-
10	MENT.—The agency operational plan and rules of engage-
11	ment of an agency shall—
12	"(1) require the agency to—
13	"(A) perform penetration testing on the
14	high value assets of the agency; or
15	"(B) coordinate with the Director of the
16	Cybersecurity and Infrastructure Security agen-
17	cy to ensure that penetration testing is being
18	performed;
19	"(2) establish guidelines for avoiding, as a re-
20	sult of penetration testing—
21	"(A) adverse impacts to the operations of
22	the agency;
23	"(B) adverse impacts to operational envi-
24	ronments and systems of the agency; and
25	"(C) inappropriate access to data;

1	"(3) require the results of penetration testing
2	to include feedback to improve the cybersecurity of
3	the agency; and
4	"(4) include mechanisms for providing consist-
5	ently formatted, and, if applicable, automated and
6	machine-readable, data to the Director and the Di-
7	rector of the Cybersecurity and Infrastructure Secu-
8	rity Agency.
9	"(d) RESPONSIBILITIES OF CISA.—The Director of
10	the Cybersecurity and Infrastructure Security Agency
11	shall—
12	"(1) establish a process to assess the perform-
13	ance of penetration testing by both Federal and non-
14	Federal entities that establishes minimum quality
15	controls for penetration testing;
16	"(2) develop operational guidance for insti-
17	tuting penetration testing programs at agencies;
18	"(3) develop and maintain a centralized capa-
19	bility to offer penetration testing as a service to
20	Federal and non-Federal entities; and
21	"(4) provide guidance to agencies on the best
22	use of penetration testing resources.
23	"(e) Responsibilities of OMB.—The Director, in
24	coordination with the Director of the Cybersecurity and
25	Infrastructure Security Agency, shall—

"(1) not less frequently than annually, inven-
tory all Federal penetration testing assets; and
"(2) develop and maintain a standardized proc-
ess for the use of penetration testing.
"(f) Prioritization of Penetration Testing Re-
SOURCES.—
"(1) In general.—The Director, in coordina-
tion with the Director of the Cybersecurity and In-
frastructure Security Agency, shall develop a frame-
work for prioritizing Federal penetration testing re-
sources among agencies.
"(2) Considerations.—In developing the
framework under this subsection, the Director shall
consider—
"(A) agency system risk assessments per-
formed under section 3554(a)(1)(A);
"(B) the Federal risk assessment per-
formed under section 3553(i);
"(C) the analysis of Federal incident data
performed under section 3597; and
"(D) any other information determined ap-
propriate by the Director or the Director of the
Cybersecurity and Infrastructure Security
Agency.

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1	"(g) Exception for National Security Sys-
2	TEMS.—The guidance issued under subsection (b) shall
3	not apply to national security systems.
4	"(h) Delegation of Authority for Certain
5	Systems.—The authorities of the Director described in
6	subsection (b) shall be delegated—
7	"(1) to the Secretary of Defense in the case of
8	systems described in section 3553(e)(2); and
9	"(2) to the Director of National Intelligence in
10	the case of systems described in 3553(e)(3).".
11	(b) Clerical Amendment.—The table of sections
12	for chapter 35 of title 44, United States Code, is amended
13	by adding after the item relating to section 3559 the fol-
14	lowing:
	"3559A. Federal penetration testing.".
15	(c) Penetration Testing by the Secretary of
16	HOMELAND SECURITY.—Section 3553(b) of title 44,
17	United States Code, as amended by section 101, is further
18	amended—
19	(1) in paragraph (8)(B), by striking "and" at
20	the end;
21	(2) by redesignating paragraph (9) as para-
22	graph (10); and
23	(3) by inserting after paragraph (8) the fol-

24

lowing:

1	"(9) performing penetration testing with or
2	without advance notice to, or authorization from,
3	agencies, to identify vulnerabilities within Federal
4	information systems; and".
5	SEC. 207. ONGOING THREAT HUNTING PROGRAM.
6	(a) Threat Hunting Program.—
7	(1) In General.—Not later than 540 days
8	after the date of enactment of this Act, the Director
9	of the Cybersecurity and Infrastructure Security
10	Agency shall establish a program to provide ongoing,
11	hypothesis-driven threat-hunting services on the net-
12	work of each agency.
13	(2) Plan.—Not later than 180 days after the
14	date of enactment of this Act, the Director of the
15	Cybersecurity and Infrastructure Security Agency
16	shall develop a plan to establish the program re-
17	quired under paragraph (1) that describes how the
18	Director of the Cybersecurity and Infrastructure Se-
19	curity Agency plans to—
20	(A) determine the method for collecting,
21	storing, accessing, and analyzing appropriate
22	agency data;
23	(B) provide on-premises support to agen-
24	cies;
25	(C) staff threat hunting services;

1	(D) allocate available human and financia
2	resources to implement the plan; and
3	(E) provide input to the heads of agencies
4	on the use of—
5	(i) more stringent standards under
6	section 11331(c)(1) of title 40, United
7	States Code; and
8	(ii) additional cybersecurity proce-
9	dures under section 3554 of title 44,
10	United States Code.
11	(b) Reports.—The Director of the Cybersecurity
12	and Infrastructure Security Agency shall submit to the ap-
13	propriate congressional committees—
14	(1) not later than 30 days after the date on
15	which the Director of the Cybersecurity and Infra-
16	structure Security Agency completes the plan re-
17	quired under subsection (a)(2), a report on the plan
18	to provide threat hunting services to agencies;
19	(2) not less than 30 days before the date on
20	which the Director of the Cybersecurity and Infra-
21	structure Security Agency begins providing threat
22	hunting services under the program under sub-
23	section (a)(1), a report providing any updates to the
24	plan developed under subsection (a)(2); and

1	(3) not later than 1 year after the date on
2	which the Director of the Cybersecurity and Infra-
3	structure Security Agency begins providing threat
4	hunting services to agencies other than the Cyberse-
5	curity and Infrastructure Security Agency, a report
6	describing lessons learned from providing those serv-
7	ices.
8	SEC. 208. CODIFYING VULNERABILITY DISCLOSURE PRO-
9	GRAMS.
10	(a) In General.—Chapter 35 of title 44, United
11	States Code, is amended by inserting after section 3559A,
12	as added by section 206 of this Act, the following:
13	"§ 3559B. Federal vulnerability disclosure programs
14	"(a) Definitions.—In this section:
15	"(1) Report.—The term 'report' means a vul-
16	nerability disclosure made to an agency by a re-
17	porter.
18	"(2) Reporter.—The term 'reporter' means
19	an individual that submits a vulnerability report
20	pursuant to the vulnerability disclosure process of an
21	agency.
22	"(b) Responsibilities of OMB.—
23	"(1) Limitation on legal action.—The Di-
24	rector, in consultation with the Attorney General,
25	shall issue guidance to agencies to not recommend or

1	pursue legal action against a reporter or an indi-
2	vidual that conducts a security research activity that
3	the head of the agency determines—
4	"(A) represents a good faith effort to fol-
5	low the vulnerability disclosure policy of the
6	agency developed under subsection (d)(2); and
7	"(B) is authorized under the vulnerability
8	disclosure policy of the agency developed under
9	subsection $(d)(2)$ .
10	"(2) Sharing information with cisa.—The
11	Director, in coordination with the Director of the
12	Cybersecurity and Infrastructure Security Agency,
13	shall issue guidance to agencies on sharing relevant
14	information in a consistent, automated, and machine
15	readable manner with the Cybersecurity and Infra-
16	structure Security Agency, including—
17	"(A) any valid or credible reports of newly
18	discovered or not publicly known vulnerabilities
19	(including misconfigurations) on Federal infor-
20	mation systems that use commercial software or
21	services;
22	"(B) information relating to vulnerability
23	disclosure, coordination, or remediation activi-
24	ties of an agency, particularly as those activities
25	relate to outside organizations—

1	"(i) with which the head of the agency
2	believes the Director of the Cybersecurity
3	and Infrastructure Security Agency can as-
4	sist; or
5	"(ii) about which the head of the
6	agency believes the Director of the Cyber-
7	security and Infrastructure Security Agen-
8	cy should know; and
9	"(C) any other information with respect to
10	which the head of the agency determines helpful
11	or necessary to involve the Cybersecurity and
12	Infrastructure Security Agency.
13	"(3) Agency vulnerability disclosure
14	POLICIES.—The Director shall issue guidance to
15	agencies on the required minimum scope of agency
16	systems covered by the vulnerability disclosure policy
17	of an agency required under subsection $(d)(2)$ .
18	"(c) Responsibilities of CISA.—The Director of
19	the Cybersecurity and Infrastructure Security Agency
20	shall—
21	"(1) provide support to agencies with respect to
22	the implementation of the requirements of this sec-
23	tion;
24	"(2) develop tools, processes, and other mecha-
25	nisms determined appropriate to offer agencies capa-

1	bilities to implement the requirements of this sec-
2	tion; and
3	"(3) upon a request by an agency, assist the
4	agency in the disclosure to vendors of newly identi-
5	fied vulnerabilities in vendor products and services.
6	"(d) Responsibilities of Agencies.—
7	"(1) Public information.—The head of each
8	agency shall make publicly available, with respect to
9	each internet domain under the control of the agen-
10	cy that is not a national security system—
11	"(A) an appropriate security contact; and
12	"(B) the component of the agency that is
13	responsible for the internet accessible services
14	offered at the domain.
15	"(2) Vulnerability disclosure policy.—
16	The head of each agency shall develop and make
17	publicly available a vulnerability disclosure policy for
18	the agency, which shall—
19	"(A) describe—
20	"(i) the scope of the systems of the
21	agency included in the vulnerability disclo-
22	sure policy;
23	"(ii) the type of information system
24	testing that is authorized by the agency;

1	"(iii) the type of information system
2	testing that is not authorized by the agen-
3	cy; and
4	"(iv) the disclosure policy of the agen-
5	cy for sensitive information;
6	"(B) with respect to a report to an agency,
7	describe—
8	"(i) how the reporter should submit
9	the report; and
10	"(ii) if the report is not anonymous,
11	when the reporter should anticipate an ac-
12	knowledgment of receipt of the report by
13	the agency;
14	"(C) include any other relevant informa-
15	tion; and
16	"(D) be mature in scope, to cover all Fed-
17	eral information systems used or operated by
18	that agency or on behalf of that agency.
19	"(3) Identified vulnerabilities.—The head
20	of each agency shall incorporate any vulnerabilities
21	reported under paragraph (2) into the vulnerability
22	management process of the agency in order to track
23	and remediate the vulnerability.
24	"(e) Paperwork Reduction Act Exemption.—
25	The requirements of subchapter I (commonly known as

- 1 the 'Paperwork Reduction Act') shall not apply to a vul-
- 2 nerability disclosure program established under this sec-
- 3 tion.
- 4 "(f) Congressional Reporting.—Not later than
- 5 90 days after the date of enactment of the Federal Infor-
- 6 mation Security Modernization Act of 2021, and annually
- 7 thereafter for a 3-year period, the Director shall provide
- 8 to the Committee on Homeland Security and Govern-
- 9 mental Affairs of the Senate and the Committee on Over-
- 10 sight and Reform of the House of Representatives a brief-
- 11 ing on the status of the use of vulnerability disclosure poli-
- 12 cies under this section at agencies, including, with respect
- 13 to the guidance issued under subsection (b)(3), an identi-
- 14 fication of the agencies that are compliant and not compli-
- 15 ant.
- 16 "(g) Exemptions.—The authorities and functions of
- 17 the Director and Director of the Cybersecurity and Infra-
- 18 structure Security Agency under this section shall not
- 19 apply to national security systems.
- 20 "(h) Delegation of Authority for Certain
- 21 Systems.—The authorities of the Director and the Direc-
- 22 tor of the Cybersecurity and Infrastructure Security Agen-
- 23 cy described in this section shall be delegated—
- 24 "(1) to the Secretary of Defense in the case of
- 25 systems described in section 3553(e)(2); and

- 1 "(2) to the Director of National Intelligence in
- 2 the case of systems described in section
- 3 3553(e)(3).".
- 4 (b) CLERICAL AMENDMENT.—The table of sections
- 5 for chapter 35 of title 44, United States Code, is amended
- 6 by adding after the item relating to section 3559A, as
- 7 added by section 206, the following:

"3559B. Federal vulnerability disclosure programs.".

#### 8 SEC. 209. IMPLEMENTING PRESUMPTION OF COMPROMISE

- 9 AND ZERO TRUST ARCHITECTURES.
- 10 (a) GUIDANCE.—Not later than 180 days after the
- 11 date of enactment of this Act, the Director, in consultation
- 12 with the Director of the Cybersecurity and Infrastructure
- 13 Security Agency and the Director of the National Institute
- 14 of Standards and Technology, shall issue guidance to
- 15 agencies to increase the security of agency systems to by
- 16 utilizing presumption of compromise and least privilege
- 17 principles.
- 18 (b) AGENCY IMPLEMENTATION PLANS.—Not later
- 19 than 60 days after the date on which the Director issues
- 20 guidance under subsection (a), the head of each agency
- 21 shall submit to the Director a plan to implement the guid-
- 22 ance, which shall include—
- 23 (1) a description of any steps the agency has
- completed;

- 114 1 (2) an identification of activities that will have 2 the most immediate security impact; and 3 (3) a schedule to implement the plan. 4 (c) Report and Briefing.—Not later than 90 days 5 after the date on which the Director issues guidance required under subsection (a), the Director shall provide a 6 briefing to the appropriate congressional committees on 8 the guidance and the agency implementation plans submitted under subsection (b). 10 SEC. 210. AUTOMATION REPORTS. 11 (a) OMB REPORT.—Not later than 180 days after 12 the date of enactment of this Act, the Director shall report 13 to the appropriate congressional committees on the use of automation under paragraphs (1), (5)(C) and (8)(B) of 14 15 section 3554(b) of title 44, United States Code. 16 (b) GAO REPORT.—Not later than 1 year after the
- 17 date of enactment of this Act, the Comptroller General
- 18 of the United States shall perform a study on the use of
- 19 automation and machine readable data across the Federal
- 20 Government for cybersecurity purposes, including the
- 21 automated updating of cybersecurity tools, sensors, or
- processes by agencies.

SEC. 211. EXTENSION OF FEDERAL ACQUISITION SECURITY
COUNCIL.
Section 1328 of title 41, United States Code, is
amended by striking "the date that" and all that follows
and inserting "December 31, 2026.".
SEC. 212. COUNCIL OF THE INSPECTORS GENERAL ON IN-
TEGRITY AND EFFICIENCY DASHBOARD.
(a) Dashboard Required.—Section 11(e)(2) of the
Inspector General Act of 1978 (5 U.S.C. App.) is amend-
ed—
(1) in subparagraph (A), by striking "and" at
the end;
(2) by redesignating subparagraph (B) as sub-
paragraph (C); and
(3) by inserting after subparagraph (A) the fol-
lowing:
"(B) that shall include a dashboard of
open information security recommendations
identified in the independent evaluations re-
quired by section 3555(a) of title 44, United
States Code; and".
SEC. 213. NATIONAL SECURITY AND DEPARTMENT OF DE-
FENSE SYSTEMS.
(a) National Security Systems.—The authorities
and functions of the Director and the Director of the Cy-

1	bersecurity and Infrastructure Security Agency under this
2	title shall not apply to national security systems.
3	(b) Delegation of Authorities.—The authorities
4	of the Director and the Director of the Cybersecurity and
5	Infrastructure Security Agency described in this title shall
6	be delegated—
7	(1) to the Secretary of Defense in the case of
8	systems described in section 3553(e)(2) of title 44,
9	United States Code; and
10	(2) to the Director of National Intelligence in
11	the case of systems described in section 3553(e)(3)
12	of title 44, United States Code.
	TITLE III—RISK-BASED BUDGET
13	IIILE III—RISK-DASED DUDGEI
13 14	MODEL
14	
	MODEL
14 15 16	MODEL SEC. 301. DEFINITIONS.
14 15	MODEL  SEC. 301. DEFINITIONS.  In this title:
14 15 16 17	MODEL  SEC. 301. DEFINITIONS.  In this title:  (1) APPROPRIATE CONGRESSIONAL COMMIT-
14 15 16 17 18	MODEL  SEC. 301. DEFINITIONS.  In this title:  (1) APPROPRIATE CONGRESSIONAL COMMITTEES.—The term "appropriate congressional com-
14 15 16 17 18	MODEL  SEC. 301. DEFINITIONS.  In this title:  (1) APPROPRIATE CONGRESSIONAL COMMITTEES.—The term "appropriate congressional committees" means—
14 15 16 17 18 19 20	MODEL  SEC. 301. DEFINITIONS.  In this title:  (1) APPROPRIATE CONGRESSIONAL COMMITTEES.—The term "appropriate congressional committees" means—  (A) the Committee on Homeland Security
14 15 16 17 18 19 20 21	MODEL  SEC. 301. DEFINITIONS.  In this title:  (1) APPROPRIATE CONGRESSIONAL COMMITTEES.—The term "appropriate congressional committees" means—  (A) the Committee on Homeland Security and Governmental Affairs and the Committees.
14 15 16 17 18 19 20 21	MODEL  SEC. 301. DEFINITIONS.  In this title:  (1) APPROPRIATE CONGRESSIONAL COMMITTEES.—The term "appropriate congressional committees" means—  (A) the Committee on Homeland Security and Governmental Affairs and the Committee on Appropriations of the Senate; and

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1	(2) COVERED AGENCY.—The term "covered
2	agency" has the meaning given the term "executive
3	agency" in section 133 of title 41, United States
4	Code.
5	(3) Director.—The term "Director" means
6	the Director of the Office of Management and Budg-
7	et.
8	(4) Information technology.—The term
9	"information technology"—
10	(A) has the meaning given the term in sec-
11	tion 11101 of title 40, United States Code; and
12	(B) includes the hardware and software
13	systems of a Federal agency that monitor and
14	control physical equipment and processes of the
15	Federal agency.
16	(5) RISK-BASED BUDGET.—The term "risk-
17	based budget" means a budget—
18	(A) developed by identifying and
19	prioritizing cybersecurity risks and
20	vulnerabilities, including impact on agency oper-
21	ations in the case of a cyber attack, through
22	analysis of threat intelligence, incident data
23	and tactics, techniques, procedures, and capa-
24	bilities of cyber threats; and

1	(B) that allocates resources based on the
2	risks identified and prioritized under subpara-
3	graph (A).
4	SEC. 302. ESTABLISHMENT OF RISK-BASED BUDGET
5	MODEL.
6	(a) In General.—
7	(1) Model.—Not later than 1 year after the
8	first publication of the budget submitted by the
9	President under section 1105 of title 31, United
10	States Code, following the date of enactment of this
11	Act, the Director, in consultation with the Director
12	of the Cybersecurity and Infrastructure Security
13	Agency and the National Cyber Director and in co-
14	ordination with the Director of the National Insti-
15	tute of Standards and Technology, shall develop a
16	standard model for creating a risk-based budget for
17	cybersecurity spending.
18	(2) Responsibility of director.—Section
19	3553(a) of title 44, United States Code, as amended
20	by section 101, is further amended by inserting after
21	paragraph (6) the following:
22	"(7) developing a standard risk-based budget
23	model to inform Federal agency cybersecurity budget
24	development; and".

1	(3) Contents of Model.—The model re-
2	quired to be developed under paragraph (1) shall—
3	(A) consider Federal and non-Federal
4	cyber threat intelligence products, where avail-
5	able, to identify threats, vulnerabilities, and
6	risks;
7	(B) consider the impact of agency oper-
8	ations of compromise of systems, including the
9	interconnectivity to other agency systems and
10	the operations of other agencies;
11	(C) indicate where resources should be al-
12	located to have the greatest impact on miti-
13	gating current and future threats and current
14	and future cybersecurity capabilities;
15	(D) be used to inform acquisition and
16	sustainment of—
17	(i) information technology and cyber-
18	security tools;
19	(ii) information technology and cyber-
20	security architectures;
21	(iii) information technology and cyber-
22	security personnel; and
23	(iv) cybersecurity and information
24	technology concepts of operations; and

1	(E) be used to evaluate and inform govern-
2	ment-wide cybersecurity programs of the De-
3	partment of Homeland Security.
4	(4) REQUIRED UPDATES.—Not less frequently
5	than once every 3 years, the Director shall review,
6	and update as necessary, the model required to be
7	developed under this subsection.
8	(5) Publication.—The Director shall publish
9	the model required to be developed under this sub-
10	section, and any updates necessary under paragraph
11	(4), on the public website of the Office of Manage-
12	ment and Budget.
13	(6) Reports.—Not later than 1 year after the
14	date of enactment of this Act, and annually there-
15	after for each of the 2 following fiscal years or until
16	the date on which the model required to be devel-
17	oped under this subsection is completed, whichever is
18	sooner, the Director shall submit a report to Con-
19	gress on the development of the model.
20	(b) Required Use of Risk-based Budget
21	Model.—
22	(1) In general.—Not later than 2 years after
23	the date on which the model developed under sub-
24	section (a) is published, the head of each covered
25	agency shall use the model to develop the annual cy-

1	bersecurity and information technology budget re-
2	quests of the agency.
3	(2) AGENCY PERFORMANCE PLANS.—Section
4	3554(d)(2) of title 44, United States Code, is
5	amended by inserting "and the risk-based budget
6	model required under section 3553(a)(7)" after
7	"paragraph (1)".
8	(c) Verification.—
9	(1) In general.—Section 1105(a)(35)(A)(i) of
10	title 31, United States Code, is amended—
11	(A) in the matter preceding subclause (I)
12	by striking "by agency, and by initiative area
13	(as determined by the administration)" and in-
14	serting "and by agency";
15	(B) in subclause (III), by striking "and"
16	at the end; and
17	(C) by adding at the end the following:
18	"(V) a validation that the budge
19	ets submitted were developed using a
20	risk-based methodology; and
21	"(VI) a report on the progress of
22	each agency on closing recommenda-
23	tions identified under the independent
24	evaluation required by section
25	3555(a)(1) of title 44.".

1	(2) Effective date.—The amendments made
2	by paragraph (1) shall take effect on the date that
3	is 2 years after the date on which the model devel-
4	oped under subsection (a) is published.
5	(d) Annual Reports.—
6	(1) Annual independent evaluation.—Sec-
7	tion 3555(a)(2) of title 44, United States Code, is
8	amended—
9	(A) in subparagraph (B), by striking
10	"and" at the end;
11	(B) in subparagraph (C), by striking the
12	period at the end and inserting "; and"; and
13	(C) by adding at the end the following:
14	"(D) an assessment of how the agency im-
15	plemented the risk-based budget model required
16	under section 3553(a)(7) and an evaluation of
17	whether the model mitigates agency cyber
18	vulnerabilities.".
19	(2) Assessment.—Section 3553(c) of title 44,
20	United States Code, as amended by section 101, is
21	further amended by inserting after paragraph (5)
22	the following:
23	"(6) an assessment of—
24	"(A) Federal agency implementation of the
25	model required under subsection (a)(7);

1	"(B) how cyber vulnerabilities of Federal
2	agencies changed from the previous year; and
3	"(C) whether the model mitigates the
4	cyber vulnerabilities of the Federal Government;
5	and".
6	(e) Gao Report.—Not later than 3 years after the
7	date on which the first budget of the President is sub-
8	mitted to Congress containing the validation required
9	under section 1105(a)(35)(A)(i)(V) of title 31, United
10	States Code, as amended by subsection (c), the Comp-
11	troller General of the United States shall submit to the
12	appropriate congressional committees a report that in-
13	cludes—
14	(1) an evaluation of the success of covered
15	agencies in developing risk-based budgets;
16	(2) an evaluation of the success of covered
17	agencies in implementing risk-based budgets;
18	(3) an evaluation of whether the risk-based
19	budgets developed by covered agencies mitigate
20	cyber vulnerability, including the extent to which the
21	risk-based budgets inform Federal Government-wide
22	cybersecurity programs; and
23	(4) any other information relating to risk-based
24	budgets the Comptroller General determines appro-
25	priate.

# TITLE IV—PILOT PROGRAMS TO

## 2 ENHANCE FEDERAL CYBER-

## 3 **SECURITY**

4					
4	SEC 401	CONTINUOUS	INDEPENDENT	EVALUATION P	II OT

- 5 (a) IN GENERAL.—Not later than 2 years after the
- 6 date of enactment of this Act, the Director, in coordina-
- 7 tion with the Director of the Cybersecurity and Infrastruc-
- 8 ture Security Agency, shall establish a pilot program to
- 9 perform continual agency evaluation of the cybersecurity
- 10 of the agency.

11

#### (b) Purpose.—

- 12 (1) In General.—The purpose of the pilot
- program established under subsection (a) shall be to
- develop the capability to continuously evaluate agen-
- 15 cy cybersecurity postures, rather than performing an
- annual evaluation.
- 17 (2) Use of information.—It is the sense of
- 18 Congress that information relating to agency cyber-
- security postures should be used, on an ongoing
- basis, to increase agency understanding of cyberse-
- 21 curity risk and improve agency cybersecurity.
- (c) Participating Agencies.—
- 23 (1) In General.—The Director, in coordina-
- tion with the Council of the Inspectors General on
- 25 Integrity and Efficiency and in consultation with the

1	Director of the Cybersecurity and Infrastructure Se-
2	curity Agency, shall identify not less than 1 agency
3	and the Inspector General of each identified agency
4	to participate in the pilot program established under
5	subsection (a).
6	(2) Capabilities of agency.—An agency se-
7	lected under paragraph (1) shall have advanced cy-
8	bersecurity capabilities and automated and machine-
9	readable means of sharing information.
10	(3) Capabilities of inspector general.—
11	The Inspector General of an agency selected under
12	paragraph (1) shall have advanced cybersecurity ca-
13	pabilities, including the ability—
14	(A) to utilize, when appropriate, automated
15	tools to gain insight into the cybersecurity pos-
16	ture of the agency; and
17	(B) to assess the impact and deployment
18	of additional cybersecurity procedures.
19	(d) Duties.—The Director, in coordination with the
20	Council of the Inspectors General on Integrity and Effi-
21	ciency, the Director of the Cybersecurity and Infrastruc-
22	ture Security Agency, and the head of each agency partici-
23	pating in the pilot program under subsection (c), shall de-
24	velop processes and procedures to perform a continuous

1	independent evaluation of the overall cybersecurity posture
2	of the agency, which may include an evaluation of—
3	(1) the status of cybersecurity remedial actions
4	of the agency;
5	(2) any vulnerability information relating to
6	agency systems that is known to the agency;
7	(3) incident information of the agency;
8	(4) penetration testing performed by an exter-
9	nal entity under section 3559A of title 44, United
10	States Code;
11	(5) information from the vulnerability disclo-
12	sure program information established under section
13	3559B of title 44, United States Code;
14	(6) agency threat hunting results; and
15	(7) any other information determined relevant
16	by the Director.
17	(e) Independent Evaluation Waiver.—With re-
18	spect to an agency that participates in the pilot program
19	under subsection (a) during any year other than the first
20	year during which the pilot program is conducted, the Di-
21	rector, with the concurrence of the Director of the Cyber-
22	security and Infrastructure Security Agency, may waive
23	any requirement of the agency with respect to the annual
24	independent evaluation under section 3555 of title 44,
25	United States Code.

1 (f) Duration.—The pilot program established under 2 this section— 3 (1) shall be performed over a period of not less 4 than 2 years at each agency that participates in the 5 pilot program under subsection (c), unless the Direc-6 tor, in consultation with the Director of the Cyberse-7 curity and Infrastructure Security Agency and the 8 Council of the Inspectors General on Integrity and 9 Efficiency, determines that continuing the pilot pro-10 gram would reduce the cybersecurity of the agency; 11 and 12 (2) may be extended by the Director, in con-13 sultation with the Director of the Cybersecurity and 14 Infrastructure Security Agency and the Council of 15 the Inspectors General on Integrity and Efficiency, 16 if the Director makes the determination described in 17 paragraph (1). 18 (g) Reports.— 19 (1) PILOT PROGRAM PLAN.—Before identifying 20 any agencies to participate in the pilot program 21 under subsection (c), the Director, in coordination 22 with the Director of the Cybersecurity and Infra-23 structure Security Agency and the Council of the In-24 spectors General on Integrity and Efficiency, shall

submit to the appropriate congressional committees

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I	a plan for the pilot program that outlines selection
2	criteria and preliminary plans to implement the pilot
3	program.
4	(2) Briefing.—Before commencing a contin-
5	uous independent evaluation of any agency under
6	the pilot program established under subsection (a),
7	the Director shall provide to the appropriate con-
8	gressional committees a briefing on—
9	(A) the selection of agencies to participate
10	in the pilot program; and
11	(B) processes and procedures to perform a
12	continuous independent evaluation of agencies.
13	(3) Pilot results.—Not later than 60 days
14	after the final day of each year during which are
15	agency participates in the pilot program established
16	under subsection (a), the Director, in coordination
17	with the Director of the Cybersecurity and Infra-
18	structure Security Agency and the Council of the In-
19	spectors General on Integrity and Efficiency, shall
20	submit to the appropriate congressional committees
21	a report on the results of the pilot program for each
22	agency that participates in the pilot program during
23	that year.

4						
1	SEC	109	ACTIVE	CVRFR	DEFENSIVE	CTIIDV

2	(a) Definition.—In this section, the term "active
3	defense technique''—
4	(1) means an action taken on the systems of an
5	entity to increase the security of information on the
6	network of an agency by misleading an adversary;
7	and
8	(2) includes a honeypot, deception, or purpose-
9	fully feeding false or misleading data to an adver-
10	sary when the adversary is on the systems of the en-
11	tity.
12	(b) Study.—Not later than 180 days after the date
13	of enactment of this Act, the Director of the Cybersecurity
14	and Infrastructure Security Agency, in coordination with
15	the Director, shall perform a study on the use of active
16	defense techniques to enhance the security of agencies,
17	which shall include—
18	(1) a review of legal restrictions on the use of
19	different active cyber defense techniques in Federal
20	environments, in consultation with the Department
21	of Justice;
22	(2) an evaluation of—
23	(A) the efficacy of a selection of active de-
24	fense techniques determined by the Director of
25	the Cybersecurity and Infrastructure Security
26	Agency; and

1	(B) factors that impact the efficacy of the
2	active defense techniques evaluated under sub-
3	paragraph (A);
4	(3) recommendations on safeguards and proce-
5	dures that shall be established to require that active
6	defense techniques are adequately coordinated to en-
7	sure that active defense techniques do not impede
8	threat response efforts, criminal investigations, and
9	national security activities, including intelligence col-
10	lection; and
11	(4) the development of a framework for the use
12	of different active defense techniques by agencies.
13	SEC. 403. SECURITY OPERATIONS CENTER AS A SERVICE
	SEC. 403. SECURITY OPERATIONS CENTER AS A SERVICE PILOT.
13	
13 14	PILOT.
13 14 15	PILOT.  (a) Purpose.—The purpose of this section is for the
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13 14 15 16 17 18	PILOT.  (a) PURPOSE.—The purpose of this section is for the Cybersecurity and Infrastructure Security Agency to run a security operation center on behalf of another agency, alleviating the need to duplicate this function at every
13 14 15 16 17 18	PILOT.  (a) PURPOSE.—The purpose of this section is for the Cybersecurity and Infrastructure Security Agency to run a security operation center on behalf of another agency, alleviating the need to duplicate this function at every agency, and empowering a greater centralized cybersecurity.
13 14 15 16 17 18 19 20	PILOT.  (a) PURPOSE.—The purpose of this section is for the Cybersecurity and Infrastructure Security Agency to run a security operation center on behalf of another agency, alleviating the need to duplicate this function at every agency, and empowering a greater centralized cybersecurity capability.
13 14 15 16 17 18 19 20 21	PILOT.  (a) Purpose.—The purpose of this section is for the Cybersecurity and Infrastructure Security Agency to run a security operation center on behalf of another agency, alleviating the need to duplicate this function at every agency, and empowering a greater centralized cybersecurity capability.  (b) Plan.—Not later than 1 year after the date of
13 14 15 16 17 18 19 20 21 22 23	PILOT.  (a) Purpose.—The purpose of this section is for the Cybersecurity and Infrastructure Security Agency to run a security operation center on behalf of another agency, alleviating the need to duplicate this function at every agency, and empowering a greater centralized cybersecurity capability.  (b) Plan.—Not later than 1 year after the date of enactment of this Act, the Director of the Cybersecurity

ter shared service offering within the Cybersecurity and Infrastructure Security Agency. 3 (c) Contents.—The plan required under subsection 4 (b) shall include considerations for— 5 (1) collecting, organizing, and analyzing agency 6 information system data in real time; 7 (2) staffing and resources; and 8 (3) appropriate interagency agreements, con-9 cepts of operations, and governance plans. 10 (d) Pilot Program.— 11 (1) IN GENERAL.—Not later than 180 days 12 after the date on which the plan required under sub-13 section (b) is developed, the Director of the Cyberse-14 curity and Infrastructure Security Agency, in con-15 sultation with the Director, shall enter into a 1-year 16 agreement with not less than 2 agencies to offer a 17 security operations center as a shared service. 18 (2) Additional agreements.—After the date 19 on which the briefing required under subsection 20 (e)(1) is provided, the Director of the Cybersecurity 21 and Infrastructure Security Agency, in consultation 22 with the Director, may enter into additional 1-year 23 agreements described in paragraph (1) with agen-24 cies. 25 (e) Briefing and Report.—

1	(1) Briefing.—Not later than 260 days after
2	the date of enactment of this Act, the Director of
3	the Cybersecurity and Infrastructure Security Agen-
4	cy shall provide to the Committee on Homeland Se-
5	curity and Governmental Affairs of the Senate and
6	the Committee on Homeland Security and the Com-
7	mittee on Oversight and Reform of the House of
8	Representatives a briefing on the parameters of any
9	1-year agreements entered into under subsection
10	(d)(1).
11	(2) Report.—Not later than 90 days after the
12	date on which the first 1-year agreement entered
13	into under subsection (d) expires, the Director of the
14	Cybersecurity and Infrastructure Security Agency
15	shall submit to the Committee on Homeland Secu-
16	rity and Governmental Affairs of the Senate and the
17	Committee on Homeland Security and the Com-
18	mittee on Oversight and Reform of the House of
19	Representatives a report on—
20	(A) the agreement; and
21	(B) any additional agreements entered into
22	with agencies under subsection (d).