

AMENDMENT NO. \_\_\_\_\_ Calendar No. \_\_\_\_\_

Purpose: In the nature of a substitute.

**IN THE SENATE OF THE UNITED STATES—117th Cong., 2d Sess.**

**S.** \_\_\_\_\_

To improve the visibility, accountability, and oversight of agency software asset management practices, and for other purposes.

Referred to the Committee on \_\_\_\_\_ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT IN THE NATURE OF A SUBSTITUTE intended to be proposed by Mr. PETERS

Viz:

1 Strike all after the enacting clause and insert the following:  
2

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Strengthening Agency  
5 Management and Oversight of Software Assets Act”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act:

8 (1) ADMINISTRATOR.—The term “Adminis-  
9 trator” means the Administrator of General Serv-  
10 ices.

1           (2) AGENCY.—The term “agency” has the  
2 meaning given the term “establishment” in section  
3 12 of the Inspector General Act of 1978 (5 U.S.C.  
4 App.).

5           (3) CLOUD COMPUTING.—The term “cloud  
6 computing” has the meaning given the term in Spe-  
7 cial Publication 800–145 of the National Institute of  
8 Standards and Technology, or any successor docu-  
9 ment.

10          (4) CLOUD SERVICE PROVIDER.—The term  
11 “cloud service provider” means an entity offering  
12 cloud computing products or services to agencies.

13          (5) COMPREHENSIVE ASSESSMENT.—The term  
14 “comprehensive assessment” means a comprehensive  
15 assessment conducted pursuant to section 3(a).

16          (6) DIRECTOR.—The term “Director” means  
17 the Director of the Office of Management and Budg-  
18 et.

19          (7) PLAN.—The term “plan” means the plan  
20 developed by a Chief Information Officer, or equiva-  
21 lent official, pursuant to section 4(a).

22          (8) SOFTWARE ENTITLEMENT.—The term  
23 “software entitlement” means any software that—

1 (A) has been purchased, leased, or licensed  
2 by or billed to an agency under any contract or  
3 other business arrangement; and

4 (B) is subject to use limitations.

5 (9) SOFTWARE INVENTORY.—The term “soft-  
6 ware inventory” means the software inventory of an  
7 agency required pursuant to—

8 (A) section 2(b)(2)(A) of the Making Elec-  
9 tronic Government Accountable By Yielding  
10 Tangible Efficiencies Act of 2016 (40 U.S.C.  
11 11302 note; Public Law 114–210); or

12 (B) subsequent guidance issued by the Di-  
13 rector of the Office of Management and Budget  
14 pursuant to that Act.

15 **SEC. 3. SOFTWARE ENTITLEMENT AND INVENTORY INTEG-**  
16 **RITY.**

17 (a) IN GENERAL.—As soon as practicable, and not  
18 later than 1 year after the date of enactment of this Act,  
19 the Chief Information Officer of each agency, in consulta-  
20 tion with the Chief Financial Officer, the Chief Procure-  
21 ment Officer, and General Counsel of the agency, or the  
22 equivalent officials of the agency, shall complete a com-  
23 prehensive assessment of the software entitlements and  
24 software inventories of the agency, which shall include—



1 (C) the extent—

2 (i) to which any software paid for, in  
3 use, or deployed throughout the agency is  
4 interoperable; and

5 (ii) of the efforts of the agency to im-  
6 prove interoperability of software assets  
7 throughout the agency enterprise;

8 (3) a categorization of software licenses of the  
9 agency by cost, volume, and type of software;

10 (4) a list of any provisions in the software li-  
11 censes of the agency that may restrict how the soft-  
12 ware can be deployed, accessed, or used, including  
13 any such restrictions on desktop or server hardware  
14 or through a cloud service provider; and

15 (5) an analysis addressing—

16 (A) the accuracy and completeness of the  
17 software inventory and software entitlements of  
18 the agency before and after the comprehensive  
19 assessment;

20 (B) management by the agency of and  
21 compliance by the agency with all contracts or  
22 other agreements or arrangements that include  
23 or implicate software licensing or software man-  
24 agement within the agency;

1 (C) the extent to which the agency accu-  
2 rately captures the total cost of enterprise li-  
3 censes agreements and related costs, including  
4 the total cost of upgrades over the life of a con-  
5 tract, cloud usage cost per user, and any other  
6 cost associated with the maintenance or serv-  
7 icing of contracts; and

8 (D) compliance with software license man-  
9 agement policies of the agency.

10 (b) CONTRACT SUPPORT.—

11 (1) AUTHORITY.—The head of an agency may  
12 enter into 1 or more contracts to support the re-  
13 quirements of subsection (a).

14 (2) NO CONFLICT OF INTEREST.—Contracts  
15 under paragraph (1) shall not include contractors  
16 with organization conflicts of interest.

17 (3) OPERATIONAL INDEPENDENCE.—Over the  
18 course of a comprehensive assessment, contractors  
19 hired pursuant to paragraph (1) shall maintain oper-  
20 ational independence from the integration, manage-  
21 ment, and operations of the software inventory and  
22 software entitlements of the agency.

23 (c) SUBMISSION.—On the date on which the Chief In-  
24 formation Officer, Chief Financial Officer, Chief Procure-  
25 ment Officer, and General Counsel of an agency, or the

1 equivalent officials of the agency, complete the comprehen-  
2 sive assessment, and not later than 1 year after the date  
3 of enactment of this Act, the Chief Information Officer  
4 shall submit the comprehensive assessment to—

5 (1) the head of the agency;

6 (2) the Director;

7 (3) the Administrator;

8 (4) the Comptroller General of the United  
9 States;

10 (5) the Committee on Homeland Security and  
11 Governmental Affairs of the Senate; and

12 (6) the Committee on Oversight and Reform of  
13 the House of Representatives.

14 (d) CONSULTATION.—In order to ensure the utility  
15 and standardization of the comprehensive assessment of  
16 each agency, including to support the development of each  
17 plan and the Government-wide strategy described in sec-  
18 tion 5, the Director, in consultation with the Adminis-  
19 trator, may share information, best practices, and rec-  
20 ommendations relating to the activities performed in the  
21 course of a comprehensive assessment of an agency.

22 **SEC. 4. ENTERPRISE LICENSING POSITIONING AT AGEN-**  
23 **CIES.**

24 (a) IN GENERAL.—The Chief Information Officer of  
25 each agency, in consultation with the Chief Financial Offi-

1 cer and the Chief Procurement Officer of the agency, or  
2 the equivalent officials of the agency, shall use the infor-  
3 mation developed pursuant to the comprehensive assess-  
4 ment of the agency under section 3(a) to develop a plan  
5 for the agency—

6 (1) to consolidate software licenses of the agen-  
7 cy; and

8 (2) to the greatest extent practicable, in order  
9 to improve the performance of, or reduce unneces-  
10 sary costs to, the agency, to adopt enterprise license  
11 agreements across the agency, by type or category of  
12 software.

13 (b) PLAN REQUIREMENTS.—The plan of an agency  
14 shall—

15 (1) include a detailed strategy for—

16 (A) the remediation of any software asset  
17 management deficiencies found during the com-  
18 prehensive assessment of the agency;

19 (B) the ongoing maintenance of software  
20 asset management upon the completion of the  
21 remediation; and

22 (C) maximizing the effectiveness of soft-  
23 ware deployed by the agency, including, to the  
24 extent practicable, leveraging technologies  
25 that—



- 1 (i) provide in-depth analysis of user  
2 behaviors and collect user feedback;
- 3 (ii) measure actual software usage via  
4 analytics that can identify inefficiencies to  
5 assist in rationalizing software spending;
- 6 (iii) allow for segmentation of the user  
7 base;
- 8 (iv) support effective governance and  
9 compliance in the use of software; and
- 10 (v) support interoperable capabilities  
11 between software;
- 12 (2) identify not fewer than 5 categories of soft-  
13 ware the agency will prioritize for conversion to en-  
14 terprise licenses as the software entitlements, con-  
15 tracts, and other agreements or arrangements for  
16 those categories come up for renewal or renegoti-  
17 ation;
- 18 (3) provide an estimate of the costs to move to  
19 enterprise, open-source, or other licenses that do not  
20 restrict the use of software by the agency, and any  
21 projected cost savings or efficiency measures  
22 throughout the total software lifecycle;
- 23 (4) identify potential mitigations to minimize  
24 software license restrictions on how such software  
25 can be deployed, accessed, or used, including any

1 mitigations that would minimize any such restric-  
2 tions on desktop or server hardware or through a  
3 cloud service provider;

4 (5) include any estimates for additional re-  
5 sources, services, or support the agency may need to  
6 execute the enterprise licensing position plan;

7 (6) provide information on the prevalence of  
8 software products in use across multiple software  
9 categories; and

10 (7) include any additional information, data, or  
11 analysis determined necessary by the Chief Informa-  
12 tion Officer, or other equivalent official, of the agen-  
13 cy.

14 (c) SUPPORT.—The Chief Information Officer, or  
15 other equivalent official, of an agency may request support  
16 from the Director and the Administrator for any analysis  
17 or developmental needs to create the plan of the agency.

18 (d) SUBMISSION.—Not later than 120 days after the  
19 date on which the Chief Information Officer, or other  
20 equivalent official, of an agency submits the comprehen-  
21 sive assessment pursuant to section 3(c), the head of the  
22 agency shall submit to the Director, the Committee on  
23 Homeland Security and Governmental Affairs of the Sen-  
24 ate, and the Committee on Oversight and Reform of the  
25 House of Representatives the plan of the agency.

1 **SEC. 5. GOVERNMENT-WIDE STRATEGY.**

2 (a) IN GENERAL.—Not later than 2 years after the  
3 date of enactment of this Act, the Director, in consultation  
4 with the Administrator and the Federal Chief Information  
5 Officers Council, shall submit to the Committee on Home-  
6 land Security and Governmental Affairs of the Senate and  
7 the Committee on Oversight and Reform of the House of  
8 Representatives a strategy that includes—

9 (1) proposals to support the adoption of Gov-  
10 ernment-wide enterprise licenses on the most widely  
11 used and most costly software entitlements identified  
12 through the comprehensive assessment and plans,  
13 including, where appropriate, a cost-benefit analysis;

14 (2) opportunities to leverage Government pro-  
15 curement policies and practices to increase inter-  
16 operability of software entitlements acquired and de-  
17 ployed to reduce costs and improve performance;

18 (3) the incorporation of data on spending by  
19 agencies on, the performance of, and management  
20 by agencies of software entitlements as part of the  
21 information required under section 11302(c)(3)(B)  
22 of title 40, United States Code;

23 (4) where applicable, directions to agencies to  
24 examine options and relevant criteria for  
25 transitioning to open-source software; and

1           (5) any other information or data collected or  
2 analyzed by the Director.

3           (b) BUDGET SUBMISSION.—

4           (1) FIRST BUDGET.—With respect to the first  
5 budget of the President submitted under section  
6 1105(a) of title 31, United States Code, on or after  
7 the date that is 2 years after the date of enactment  
8 of this Act, the Director shall ensure that the strat-  
9 egy required under subsection (a) of this section and  
10 the plan of each agency are included in the budget  
11 justification materials of each agency submitted in  
12 conjunction with that budget.

13           (2) SUBSEQUENT 5 BUDGETS.—With respect to  
14 the first 5 budgets of the President submitted under  
15 section 1105(a) of title 31, United States Code,  
16 after the budget described in paragraph (1), the Di-  
17 rector shall—

18           (A) designate performance metrics for  
19 agencies for common software licensing, man-  
20 agement, and cost criteria; and

21           (B) ensure that the progress of each agen-  
22 cy toward the performance metrics is included  
23 in the budget justification materials of the  
24 agency submitted in conjunction with that  
25 budget.

1 **SEC. 6. GAO REPORT.**

2 Not later than 3 years after the date of enactment  
3 of this Act, the Comptroller General of the United States  
4 shall submit to the Committee on Homeland Security and  
5 Governmental Affairs of the Senate and the Committee  
6 on Oversight and Reform of the House of Representatives  
7 a report on Government-wide trends, comparisons among  
8 agencies, and other analyses of plans and the strategy re-  
9 quired under section 5(a) by the Comptroller General of  
10 the United States.