

AMENDMENT NO. _____ Calendar No. _____

Purpose: In the nature of a substitute.

IN THE SENATE OF THE UNITED STATES—118th Cong., 1st Sess.

S. 931

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 that term in section 3502 of title 44,
3 United States Code.

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

9 (4) CLOUD SERVICE PROVIDER.—The term
10 “cloud service provider” has the meaning given the
11 term in section 3607(b) of title 44, United States
12 Code.

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 pursuant to that Act.

14 **SEC. 3. SOFTWARE INVENTORY UPDATE AND EXPANSION.**

15 (a) IN GENERAL.—As soon as practicable, and not
16 later than 18 months after the date of enactment of this
17 Act, the Chief Information Officer of each agency, in con-
18 sultation with the Chief Financial Officer, the Chief Ac-
19 quisition Officer, the Chief Data Officer, and General
20 Counsel of the agency, or the equivalent officials of the
21 agency, shall complete a comprehensive assessment of the
22 software paid for by, in use at, or deployed throughout
23 the agency, which shall include—

24 (1) the current software inventory of the agen-
25 cy, including software entitlements, contracts and

1 other agreements or arrangements of the agency,
2 and a list of the largest software entitlements of the
3 agency separated by provider and category of soft-
4 ware;

5 (2) a comprehensive, detailed accounting of—

6 (A) any software used by or deployed with-
7 in the agency, including software developed or
8 built by the agency, or by another agency for
9 use by the agency, including shared services, as
10 of the date of the comprehensive assessment,
11 including, to the extent identifiable, the con-
12 tracts and other agreements or arrangements
13 used by the agency to acquire, build, deploy, or
14 use such software;

15 (B) information and data on software enti-
16 tlements, which shall include information on
17 any additional fees or costs, including fees or
18 costs for the use of cloud services, that are not
19 included in the initial costs of the contract,
20 agreement, or arrangement—

21 (i) for which the agency pays;

22 (ii) that are not deployed or in use by
23 the agency; and

24 (iii) that are billed to the agency
25 under any contract or business arrange-

1 ment that creates duplication, or are other-
2 wise determined to be unnecessary by the
3 Chief Information Officer of the agency, or
4 the equivalent official, in the deployment
5 or use by the agency; and

6 (C) the extent—

7 (i) to which any software paid for, in
8 use, or deployed throughout the agency is
9 interoperable; and

10 (ii) of the efforts of the agency to im-
11 prove interoperability of software assets
12 throughout the agency enterprise;

13 (3) a categorization of software entitlements of
14 the agency by cost, volume, and type of software;

15 (4) a list of any provisions in the software enti-
16 tlements of the agency that may restrict how the
17 software can be deployed, accessed, or used, includ-
18 ing any such restrictions on desktop or server hard-
19 ware, through a cloud service provider, or on data
20 ownership or access; and

21 (5) an analysis addressing—

22 (A) the accuracy and completeness of the
23 comprehensive assessment;

24 (B) agency management of and compliance
25 with all contracts or other agreements or ar-

1 rangements that include or reference software
2 entitlements or software management within
3 the agency;

4 (C) the extent to which the agency accu-
5 rately captures the total cost of software enti-
6 tlements and related costs, including the total
7 cost of upgrades over the life of a contract,
8 cloud usage costs, and any other cost associated
9 with the maintenance or servicing of contracts;
10 and

11 (D) compliance with software license man-
12 agement policies of the agency.

13 (b) CONTRACT SUPPORT.—

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

17 (2) NO CONFLICT OF INTEREST.—Contracts
18 under paragraph (1) shall not include contractors
19 with organizational conflicts of interest, within the
20 meaning given that term under subpart 9.5 of the
21 Federal Acquisition Regulation.

22 (3) OPERATIONAL INDEPENDENCE.—Over the
23 course of a comprehensive assessment, contractors
24 hired pursuant to paragraph (1) shall maintain oper-
25 ational independence from the integration, manage-

1 ment, and operations of the software inventory and
2 software entitlements of the agency.

3 (c) SUBMISSION.—On the date on which the Chief In-
4 formation Officer, Chief Financial Officer, Chief Acquisi-
5 tion Officer, the Chief Data Officer, and General Counsel
6 of an agency, or the equivalent officials of the agency,
7 complete the comprehensive assessment, the Chief Infor-
8 mation Officer shall submit the comprehensive assessment
9 to the head of the agency.

10 (d) SUBSEQUENT SUBMISSION.—Not later than 30
11 days after the date on which the head of an agency re-
12 ceives the comprehensive assessment under subsection (c),
13 the head of the agency shall submit the comprehensive as-
14 sessment to—

15 (1) the Director;

16 (2) the Administrator;

17 (3) the Comptroller General of the United
18 States;

19 (4) the Committee on Homeland Security and
20 Governmental Affairs of the Senate; and

21 (5) the Committee on Oversight and Account-
22 ability of the House of Representatives.

23 (e) CONSULTATION.—In order to ensure the utility
24 and standardization of the comprehensive assessment of
25 each agency, including to support the development of each

1 plan and the report required under section 4(d)(3), the
2 Director, in consultation with the Administrator, shall
3 share information, best practices, and recommendations
4 relating to the activities performed in the course of a com-
5 prehensive assessment of an agency.

6 **SEC. 4. SOFTWARE MODERNIZATION PLANNING AT AGEN-**
7 **CIES.**

8 (a) IN GENERAL.—The Chief Information Officer of
9 each agency, in consultation with the Chief Financial Offi-
10 cer, the Chief Acquisition Officer, the Chief Data Officer,
11 and the General Counsel of the agency, or the equivalent
12 officials of the agency, shall use the information developed
13 pursuant to the comprehensive assessment of the agency
14 to develop a plan for the agency—

15 (1) to consolidate software entitlements of the
16 agency;

17 (2) to ensure that, in order to improve the per-
18 formance of, and reduce unnecessary costs to, the
19 agency, the Chief Information Officer, Chief Data
20 Officer, and Chief Acquisition Officer of the agency,
21 or the equivalent officers, develop criteria and proce-
22 dures for how the agency will adopt cost-effective ac-
23 quisition strategies, including enterprise licensing,
24 across the agency that reduce costs, eliminate excess
25 licenses, and improve performance; and

1 (3) to restrict the ability of a bureau, program,
2 component, or operational entity within the agency
3 to acquire, use, develop, or otherwise leverage any
4 software entitlement (or portion thereof) without the
5 approval of the Chief Information Officer of the
6 agency, in consultation with the Chief Acquisition
7 Officer of the agency, or the equivalent officers of
8 the agency.

9 (b) PLAN REQUIREMENTS.—The plan of an agency
10 shall—

11 (1) include a detailed strategy for—

12 (A) the remediation of any software asset
13 management deficiencies found during the com-
14 prehensive assessment of the agency;

15 (B) the ongoing maintenance of software
16 asset management upon the completion of the
17 remediation;

18 (C) automation of software license man-
19 agement processes and incorporation of dis-
20 covery tools across the agency;

21 (D) ensuring that officers and employees
22 of the agency are adequately trained in the poli-
23 cies, procedures, rules, regulations, and guid-
24 ance relating to the software acquisition and
25 development of the agency before entering into

1 any agreement relating to any software entitle-
2 ment (or portion thereof) for the agency, in-
3 cluding training on—

4 (i) negotiating options within con-
5 tracts to address and minimize provisions
6 that restrict how the agency may deploy,
7 access, or use the software, including re-
8 strictions on deployment, access, or use on
9 desktop or server hardware and restric-
10 tions on data ownership or access;

11 (ii) the differences between acquiring
12 commercial software products and services
13 and acquiring or building custom software;
14 and

15 (iii) determining the costs of different
16 types of licenses and options for adjusting
17 licenses to meet increasing or decreasing
18 demand; and

19 (E) maximizing the effectiveness of soft-
20 ware deployed by the agency, including, to the
21 extent practicable, leveraging technologies
22 that—

23 (i) measure actual software usage via
24 analytics that can identify inefficiencies to
25 assist in rationalizing software spending;

1 (ii) allow for segmentation of the user
2 base;

3 (iii) support effective governance and
4 compliance in the use of software; and

5 (iv) support interoperable capabilities
6 between software;

7 (2) identify categories of software the agency
8 could prioritize for conversion to more cost-effective
9 software licenses, including enterprise licenses, as
10 the software entitlements, contracts, and other
11 agreements or arrangements come up for renewal or
12 renegotiation;

13 (3) provide an estimate of the costs to move to-
14 ward more enterprise, open-source, or other licenses
15 that do not restrict the use of software by the agen-
16 cy, and the projected cost savings, efficiency meas-
17 ures, and improvements to agency performance
18 throughout the total software lifecycle;

19 (4) identify potential mitigations to minimize
20 software license restrictions on how such software
21 can be deployed, accessed, or used, including any
22 mitigations that would minimize any such restric-
23 tions on desktop or server hardware, through a cloud
24 service provider, or on data ownership or access;

1 (5) ensure that the purchase by the agency of
2 any software is based on publicly available criteria
3 that are not unduly structured to favor any specific
4 vendor, unless prohibited by law (including regula-
5 tion);

6 (6) include any estimates for additional re-
7 sources, services, or support the agency may need to
8 implement the plan;

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

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

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

20 (d) AGENCY SUBMISSION.—Not later than 1 year
21 after the date on which the head of an agency submits
22 the comprehensive assessment pursuant to section 3(d),
23 the head of the agency shall submit to the Director, the
24 Committee on Homeland Security and Governmental Af-
25 fairs of the Senate, and the Committee on Oversight and

1 Accountability of the House of Representatives the plan
2 of the agency.

3 (e) CONSULTATION AND COORDINATION.—The Di-
4 rector—

5 (1) in coordination with the Administrator, the
6 Chief Information Officers Council, the Chief Acqui-
7 sition Officers Council, the Chief Data Officers
8 Council, the Chief Financial Officers Council, and
9 other government and industry representatives iden-
10 tified by the Director, shall establish processes,
11 using existing reporting functions, as appropriate, to
12 identify, define, and harmonize common definitions,
13 terms and conditions, standardized requirements,
14 and other information and criteria to support agency
15 heads in developing and implementing the plans re-
16 quired by this section; and

17 (2) in coordination with the Administrator, and
18 not later than 2 years after the date of enactment
19 of this Act, submit to the Committee on Homeland
20 Security and Governmental Affairs of the Senate
21 and the Committee on Oversight and Accountability
22 of the House of Representatives a report detailing
23 recommendations to leverage Government procure-
24 ment policies and practices with respect to software

1 acquired by, developed by, deployed within, or in use
2 at 1 or more agencies to—

3 (A) increase the interoperability of soft-
4 ware licenses, including software entitlements
5 and software built by Government agencies;

6 (B) consolidate licenses, as appropriate;

7 (C) reduce costs;

8 (D) improve performance; and

9 (E) modernize the management and over-
10 sight of software entitlements and software
11 built by Government agencies, as identified
12 through an analysis of agency plans.

13 **SEC. 5. GAO REPORT.**

14 Not later than 3 years after the date of enactment
15 of this Act, the Comptroller General of the United States
16 shall submit to the Committee on Homeland Security and
17 Governmental Affairs of the Senate and the Committee
18 on Oversight and Accountability of the House of Rep-
19 resentatives a report on—

20 (1) Government-wide trends in agency software
21 asset management practices;

22 (2) comparisons of software asset management
23 practices among agencies;

1 (3) the establishment by the Director of proc-
2 esses to identify, define, and harmonize common
3 definitions, terms, and conditions under section 4(e);

4 (4) agency compliance with the restrictions on
5 contract support under section 3(b); and

6 (5) other analyses of and findings regarding the
7 plans of agencies, as determined by the Comptroller
8 General of the United States.

9 **SEC. 6. NO ADDITIONAL FUNDS.**

10 No additional funds are authorized to be appro-
11 priated for the purpose of carrying out this Act.