

**AMENDMENT IN THE NATURE OF A SUBSTITUTE**  
**TO H.R. 5457**  
**OFFERED BY MR. COMER OF KENTUCKY**

Strike all after the enacting clause and insert the following:

**1 SECTION 1. SHORT TITLE.**

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

**4 SEC. 2. DEFINITIONS.**

5       In this Act:

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

9           (2) AGENCY.—The term “agency” has the  
10 meaning given that term in section 3502 of title 44,  
11 United States Code, except that such term does not  
12 include an element of the intelligence community.

13           (3) CLOUD COMPUTING.—The term “cloud  
14 computing” has the meaning given the term in Spe-  
15 cial Publication 800–145 of the National Institute of  
16 Standards and Technology, or any successor docu-  
17 ment.

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

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

8           (6) DIRECTOR.—The term “Director” means  
9           the Director of the Office of Management and Budg-  
10          et.

11          (7) INTELLIGENCE COMMUNITY.—The term  
12          “intelligence community” has the meaning given the  
13          term in section 3 of the National Security Act of  
14          1947 (50 U.S.C. 3003).

15          (8) PLAN.—The term “plan” means the plan  
16          developed by a Chief Information Officer, or equiva-  
17          lent official, pursuant to section 4(a).

18          (9) SOFTWARE ENTITLEMENT.—The term  
19          “software entitlement” means any software that—

20                 (A) has been purchased, leased, or licensed  
21                 by or billed to an agency under any contract or  
22                 other business arrangement; and

23                 (B) is subject to use limitations.

1           (10) SOFTWARE INVENTORY.—The term “soft-  
2       ware inventory” means the software inventory of an  
3       agency required pursuant to—

4           (A) section 2(b)(2)(A) of the Making Elec-  
5       tronic Government Accountable By Yielding  
6       Tangible Efficiencies Act of 2016 (40 U.S.C.  
7       11302 note; Public Law 114–210); or

8           (B) subsequent guidance issued by the Di-  
9       rector pursuant to that Act.

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

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

20           (1) the current software inventory of the agen-  
21       cy, including software entitlements, contracts and  
22       other agreements or arrangements of the agency,  
23       and a list of the largest software entitlements of the  
24       agency separated by provider and category of soft-  
25       ware;

1 (2) a comprehensive, detailed accounting of—

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

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

17 (i) for which the agency pays;

18 (ii) that are not deployed or in use by  
19 the agency; and

20 (iii) that are billed to the agency  
21 under any contract or business arrange-  
22 ment that creates duplication, or are other-  
23 wise determined to be unnecessary by the  
24 Chief Information Officer of the agency, or

1 the equivalent official, in the deployment  
2 or use by the agency; and

3 (C) the extent—

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

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

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

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

18 (5) an analysis addressing—

19 (A) the accuracy and completeness of the  
20 comprehensive assessment;

21 (B) agency management of and compliance  
22 with all contracts or other agreements or ar-  
23 rangements that include or reference software  
24 entitlements or software management within  
25 the agency;

1 (C) the extent to which the agency accu-  
2 rately captures the total cost of software enti-  
3 tlements and related costs, including the total  
4 cost of upgrades over the life of a contract,  
5 cloud usage costs, and any other cost associated  
6 with the maintenance or servicing of contracts;  
7 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 organizational conflicts of interest, within the  
17 meaning given that term under subpart 9.5 of the  
18 Federal Acquisition Regulation.

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

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

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

13 (1) the Director;

14 (2) the Administrator;

15 (3) the Comptroller General of the United  
16 States;

17 (4) the Committee on Homeland Security and  
18 Governmental Affairs of the Senate; and

19 (5) the Committee on Oversight and Govern-  
20 ment Reform of the House of Representatives.

21 (e) CONSULTATION.—In order to ensure the utility  
22 and standardization of the comprehensive assessment of  
23 each agency, including to support the development of each  
24 plan and the report required under section 4(e)(2), the  
25 Director, in consultation with the Administrator, shall

1 share information, best practices, and recommendations  
2 relating to the activities performed in the course of a com-  
3 prehensive assessment of an agency.

4 (f) INTELLIGENCE COMMUNITY.—For each element  
5 of the intelligence community, a comprehensive assess-  
6 ment described under subsection (a) shall be—

7 (1) conducted separately;

8 (2) performed only by an entity designated by  
9 the head of the element of the intelligence commu-  
10 nity, in accordance with appropriate applicable laws;

11 (3) performed in such a manner as to ensure  
12 appropriate protection of information which, if dis-  
13 closed, may adversely affect national security; and

14 (4) submitted in summary form, not later than  
15 30 days after the date on which the head of the ele-  
16 ment of the intelligence community receives the as-  
17 sessment, by the head of the element of the intel-  
18 ligence community to—

19 (A) the Director;

20 (B) the Select Committee on Intelligence  
21 of the Senate; and

22 (C) the Permanent Select Committee on  
23 Intelligence of the House of Representatives.



1   **SEC. 4. SOFTWARE MODERNIZATION PLANNING AT AGEN-**  
2                           **CIES.**

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

10           (1) to consolidate software entitlements of the  
11 agency;

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

21           (3) to restrict the ability of a bureau, program,  
22 component, or operational entity within the agency  
23 to acquire, use, develop, or otherwise leverage any  
24 software entitlement (or portion thereof) without the  
25 approval of the Chief Information Officer of the  
26 agency, in consultation with the Chief Acquisition

1       Officer of the agency, or the equivalent officers of  
2       the agency.

3       (b) PLAN REQUIREMENTS.—The plan of an agency  
4 shall—

5           (1) include a detailed strategy for—

6               (A) the remediation of any software asset  
7               management deficiencies found during the com-  
8               prehensive assessment of the agency;

9               (B) the ongoing maintenance of software  
10              asset management upon the completion of the  
11              remediation;

12              (C) automation of software license man-  
13              agement processes and incorporation of dis-  
14              covery tools across the agency;

15              (D) ensuring that officers and employees  
16              of the agency are adequately trained in the poli-  
17              cies, procedures, rules, regulations, and guid-  
18              ance relating to the software acquisition and  
19              development of the agency before entering into  
20              any agreement relating to any software entitle-  
21              ment (or portion thereof) for the agency, in-  
22              cluding training on—

23                      (i) negotiating options within con-  
24                      tracts to address and minimize provisions  
25                      that restrict how the agency may deploy,

1 access, or use the software, including re-  
2 strictions on deployment, access, or use on  
3 desktop or server hardware and restric-  
4 tions on data ownership or access;

5 (ii) the differences between acquiring  
6 commercial software products and services  
7 and acquiring or building custom software;  
8 and

9 (iii) determining the costs of different  
10 types of licenses and options for adjusting  
11 licenses to meet increasing or decreasing  
12 demand; and

13 (E) maximizing the effectiveness of soft-  
14 ware deployed by the agency, including, to the  
15 extent practicable, leveraging technologies  
16 that—

17 (i) measure actual software usage via  
18 analytics that can identify inefficiencies to  
19 assist in rationalizing software spending;

20 (ii) allow for segmentation of the user  
21 base;

22 (iii) support effective governance and  
23 compliance in the use of software; and

24 (iv) support interoperable capabilities  
25 between software;

1           (2) identify categories of software the agency  
2           could prioritize for conversion to more cost-effective  
3           software licenses, including enterprise licenses, as  
4           the software entitlements, contracts, and other  
5           agreements or arrangements come up for renewal or  
6           renegotiation;

7           (3) provide an estimate of the costs to move to-  
8           ward more enterprise, open-source, or other licenses  
9           that do not restrict the use of software by the agen-  
10          cy, and the projected cost savings, efficiency meas-  
11          ures, and improvements to agency performance  
12          throughout the total software lifecycle;

13          (4) identify potential mitigations to minimize  
14          software license restrictions on how such software  
15          can be deployed, accessed, or used, including any  
16          mitigations that would minimize any such restric-  
17          tions on desktop or server hardware, through a cloud  
18          service provider, or on data ownership or access;

19          (5) ensure that the purchase by the agency of  
20          any software is based on publicly available criteria  
21          that are not unduly structured to favor any specific  
22          vendor, unless prohibited by law (including regula-  
23          tion);

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

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

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

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

15       (d) AGENCY SUBMISSION.—

16           (1) IN GENERAL.—Not later than 1 year after  
17      the date on which the head of an agency submits the  
18      comprehensive assessment pursuant to section 3(d),  
19      the head of the agency shall submit to the Director,  
20      the Committee on Homeland Security and Govern-  
21      mental Affairs of the Senate, and the Committee on  
22      Oversight and Government Reform of the House of  
23      Representatives the plan of the agency.

24           (2) INTELLIGENCE COMMUNITY.—Not later  
25      than 1 year after the date on which the head of an

1 element of the intelligence community submits the  
2 summary assessment pursuant to section 3(f)(4), the  
3 head of the element shall separately submit the plan  
4 of the element to the Director, the Select Committee  
5 on Intelligence of the Senate, and the Permanent  
6 Select Committee on Intelligence of the House of  
7 Representatives.

8 (e) CONSULTATION AND COORDINATION.—The Di-  
9 rector—

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

22 (2) in coordination with the Administrator, and  
23 not later than 2 years after the date of enactment  
24 of this Act, submit to the Committee on Homeland  
25 Security and Governmental Affairs of the Senate

1 and the Committee on Oversight and Government  
2 Reform of the House of Representatives a report de-  
3 tailing recommendations to leverage Government  
4 procurement policies and practices with respect to  
5 software acquired by, developed by, deployed within,  
6 or in use at 1 or more agencies to—

7 (A) increase the interoperability of soft-  
8 ware licenses, including software entitlements  
9 and software built by Government agencies;

10 (B) consolidate licenses, as appropriate;

11 (C) reduce costs;

12 (D) improve performance; and

13 (E) modernize the management and over-  
14 sight of software entitlements and software  
15 built by Government agencies, as identified  
16 through an analysis of agency plans.

17 **SEC. 5. GAO REPORT.**

18 Not later than 3 years after the date of enactment  
19 of this Act, the Comptroller General of the United States  
20 shall submit to the Committee on Homeland Security and  
21 Governmental Affairs of the Senate and the Committee  
22 on Oversight and Government Reform of the House of  
23 Representatives a report on—

24 (1) Government-wide trends in agency software  
25 asset management practices;

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

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

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

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

11 **SEC. 6. NO ADDITIONAL FUNDS.**

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

