

AMENDMENT NO. _____ Calendar No. _____

Purpose: In the nature of a substitute.

IN THE SENATE OF THE UNITED STATES—118th Cong., 2d Sess.

S. 2871

To advance Federal Government innovation through the implementation and use of multi-cloud computing software technology, 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 fol-

2 lowing:

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Multi-Cloud Innovation

5 and Advancement Act of 2023”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act:

8 (1) AGENCY.—The term “agency” has the

9 meaning given the term in section 3502 of title 44,

10 United States Code.

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

6 (3) COMPTROLLER GENERAL.—The term
7 “Comptroller General” means the Comptroller Gen-
8 eral of the United States.

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

12 (5) INFORMATION AND COMMUNICATIONS
13 TECHNOLOGY.—The term “information and commu-
14 nications technology”—

15 (A) has the meaning given the term in
16 subpart 2.101 of the Federal Acquisition Regu-
17 lation, or any successor regulation; and

18 (B) includes associated services.

19 (6) MULTI-CLOUD TECHNOLOGY.—The term
20 “multi-cloud technology” has the meaning given the
21 term by the Director of the National Institute of
22 Standards and Technology pursuant to section 6(a).

23 (7) RELEVANT COMMITTEES OF CONGRESS.—
24 The term “relevant committees of Congress” means
25 the Committee on Homeland Security and Govern-

1 mental Affairs of the Senate and the Committee on
2 Oversight and Accountability of the House of Rep-
3 resentatives.

4 **SEC. 3. STUDY AND GUIDELINES FOR VOLUNTARY AGENCY**
5 **USE OF MULTI-CLOUD TECHNOLOGY.**

6 (a) IN GENERAL.—Not later than 1 year after the
7 date of enactment of this Act, the Director shall—

8 (1) study the use of multi-cloud technology by
9 agencies;

10 (2) identify the extent to which agencies use
11 multi-cloud computing technology;

12 (3) identify, among agencies that use multi-
13 cloud technology—

14 (A) best practices, including for security,
15 portability, and interoperability across multiple
16 cloud computing vendors;

17 (B) best cybersecurity practices and frame-
18 works, including cloud native security solutions,
19 to support multi-cloud technology;

20 (C) lessons learned from adoption of multi-
21 cloud technologies by agencies; and

22 (D) use cases of multi-cloud technology by
23 agencies;

24 (4) develop a cost-benefit analysis of agencies
25 transitioning to multi-cloud technology compared to

1 the existing cloud computing systems of those agen-
2 cies; and

3 (5) provide to the relevant committees of Con-
4 gress a briefing on the plans and methodologies of
5 the Director for carrying out this subsection and
6 subsection (b).

7 (b) BEST PRACTICES.—Not later than 1 year after
8 the date of the completion of the study required under
9 subsection (a)(1), the Director shall compile and make
10 available to agencies the information identified under sub-
11 section (a)(3) to assist agencies that consider adopting or
12 choose to adopt multi-cloud technology.

13 (c) BRIEFING.—Not later than 540 days after the
14 date of enactment of this Act, the Director shall submit
15 to the relevant committees of Congress the findings of the
16 study required under subsection (a)(1), including any leg-
17 islative recommendations to ensure the safe and secure
18 voluntary adoption of multi-cloud technology by agencies.

19 **SEC. 4. WORKFORCE DEVELOPMENT STUDY AND TECH-**
20 **NICAL CAPABILITIES ASSESSMENT.**

21 Not later than 1 year after the date of enactment
22 of this Act, the Comptroller General shall submit to Con-
23 gress and make publicly available a report that—

24 (1) assesses the state of the digital skills and
25 expertise gap within the Federal workforce relating

1 to information and communications technology, in-
2 cluding cloud computing and multi-cloud technology;

3 (2) assesses—

4 (A) the capability of the Federal acquisi-
5 tion workforce to effectively research, solicit,
6 evaluate, acquire, and securely procure and
7 manage multi-cloud technology from vendors,
8 with particular attention to flexible or modular
9 contracting practices that facilitate the inher-
10 ently complex and dynamic nature of multi-
11 cloud technology procurement; and

12 (B) any gaps in the Federal acquisition
13 workforce with respect to the tasks described in
14 subparagraph (A);

15 (3) assesses the capability of the Federal infor-
16 mation technology workforce to effectively architect,
17 deploy, manage, and secure multi-cloud technology
18 from vendors, with particular attention to technical
19 practices that focus on interoperability, monitoring,
20 and optimization of the multi-cloud environment;

21 (4) estimates any costs associated with addi-
22 tional Federal workforce training as a result of the
23 increased adoption of multi-cloud technologies; and

1 (5) includes any recommendations to address
2 any gap identified as a result of the assessment de-
3 scribed in paragraph (1) relating to—

4 (A) Federal workforce development activi-
5 ties, including training, certifications, staffing
6 levels, and partnerships; and

7 (B) policies and hiring practices for agen-
8 cies.

9 **SEC. 5. REPORT TO CONGRESS.**

10 Not later than 2 years after the date of enactment
11 of this Act, the Comptroller General shall submit to Con-
12 gress and make publicly available a report assessing—

13 (1) the state of cloud technology adoption with-
14 in the Federal Government as of the date of enact-
15 ment of this Act;

16 (2) whether and to what extent the use of
17 multi-cloud technology has resulted in flexibility,
18 cost savings, and reduced cybersecurity risk;

19 (3) circumstances that are favorable or not fa-
20 vorable for adoption by agencies of multi-cloud tech-
21 nology;

22 (4) the technical and other capabilities nec-
23 essary for the voluntary adoption of multi-cloud
24 technology by agencies;

1 (5) cybersecurity risks and benefits specific to
2 multi-cloud technology, including best practices for
3 agencies or entities looking to use multi-cloud tech-
4 nology to mitigate identified risks; and

5 (6) a cost-benefit analysis of agencies
6 transitioning to multi-cloud technology compared to
7 the existing cloud computing systems of those agen-
8 cies.

9 **SEC. 6. MULTI-CLOUD TECHNOLOGY DEFINITION.**

10 (a) IN GENERAL.—Not later than 120 days after the
11 date of enactment of this Act, the Director of the National
12 Institute of Standards and Technology shall publish a def-
13 inition of “multi-cloud technology” for the purpose of this
14 Act.

15 (b) CONSIDERATIONS.—In publishing the definition
16 required under subsection (a), the Director of the National
17 Institute of Standards and Technology shall consider
18 input from stakeholders and industry leaders.

19 (c) REVIEW; UPDATES.—The Director of the Na-
20 tional Institute of Standards and Technology shall periodi-
21 cally review and, if necessary, update and republish the
22 definition required under subsection (a) to reflect advance-
23 ments in technology or industry practices.

1 SEC. 7. NO ADDITIONAL FUNDS.

2 No additional amounts are authorized to be appro-
3 priated to carry out this Act.