

118TH CONGRESS
1ST SESSION

S. 2871

To advance Federal Government innovation through the implementation and use of multi-cloud computing software technology, and for other purposes.

IN THE SENATE OF THE UNITED STATES

SEPTEMBER 20, 2023

Mr. DAINES (for himself and Ms. ROSEN) introduced the following bill; which was read twice and referred to the Committee on Homeland Security and Governmental Affairs

A BILL

To advance Federal Government innovation through the implementation and use of multi-cloud computing software technology, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

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:

1 (1) AGENCY.—The term “agency” has the
2 meaning given the term in section 3502 of title 44,
3 United States Code.

4 (2) 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 (3) COMPTROLLER GENERAL.—The term
10 “Comptroller General” means the Comptroller Gen-
11 eral of the United States.

12 (4) DIRECTOR.—The term “Director” means
13 the Director of the Office of Management and Budg-
14 et.

15 (5) INFORMATION AND COMMUNICATIONS
16 TECHNOLOGY.—The term “information and commu-
17 nications technology”—

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

21 (B) includes associated services.

22 (6) MULTI-CLOUD TECHNOLOGY.—The term
23 “multi-cloud technology” means architecture and
24 services that allow for data, application, and pro-
25 gram portability, usability, and interoperability be-

1 tween infrastructure, platforms, and hosted applica-
2 tions of multiple cloud computing vendors and be-
3 tween public, private, and edge cloud environments
4 in a manner that securely delivers operational and
5 management consistency, comprehensive visibility,
6 and resiliency.

7 (7) RELEVANT COMMITTEES OF CONGRESS.—
8 The term “relevant committees of Congress” means
9 the Committee on Homeland Security and Govern-
10 mental Affairs of the Senate and the Committee on
11 Oversight and Accountability of the House of Rep-
12 resentatives.

13 **SEC. 3. USE OF MULTI-CLOUD TECHNOLOGY.**

14 (a) IN GENERAL.—Not later than 1 year after the
15 date of enactment of this Act, the Director, in consultation
16 with the Administrator of General Services, the Director
17 of the National Institute of Standards and Technology,
18 the Secretary of Homeland Security, the Administrator of
19 the United States Digital Service, and the Administrator
20 of the Office of Electronic Government, shall—

21 (1) identify and evaluate any impediments to
22 the adoption of multi-cloud technology by agencies;

23 (2) identify best practices for how agencies can
24 implement multi-cloud technology to allow for data

1 portability and interoperability across multiple cloud
2 computing vendors;

3 (3) evaluate the adoption by agencies of cyber-
4 security frameworks to support multi-cloud tech-
5 nology; and

6 (4) develop written guidance for agencies based
7 on the results of the identification described in para-
8 graph (2) that—

9 (A) describes how agencies should use
10 multi-cloud technology to allow for applications,
11 data, and programs to be portable and inter-
12 operable between public, private, and edge cloud
13 environments; and

14 (B) outlines a roadmap for the implemen-
15 tation of multi-cloud technology across agencies
16 not later than January 1, 2025.

17 (b) BRIEFING.—Not later than 1 year after the date
18 of enactment of this Act, the Director shall submit to the
19 relevant committees of Congress—

20 (1) a copy of the written guidance developed
21 under subsection (a)(4);

22 (2) a briefing on the implementation of multi-
23 cloud technology by agencies; and

1 (3) any recommendations relating to the expansion or extension of the implementation described in
2 paragraph (2).
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4 **SEC. 4. WORKFORCE DEVELOPMENT STUDY AND TECHNICAL CAPABILITIES ASSESSMENT.**
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6 (a) IN GENERAL.—Not later than 1 year after the
7 date of enactment of this Act, the Comptroller General
8 shall submit to Congress and make publicly available a
9 report that—

10 (1) assesses the state of the digital skills and
11 expertise gap within the Federal workforce relating
12 to information and communications technology, with
13 particular attention to the skills and expertise gap
14 relating to cloud computing and multi-cloud technology;
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16 (2) assesses the capability of the Federal acquisition workforce to effectively research, solicit, evaluate, acquire, and manage multi-cloud technology from vendors, with particular attention to flexible or modular contracting practices that facilitate the inherently complex and dynamic nature of multi-cloud technology procurement;
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23 (3) estimates any costs associated with additional Federal workforce training as a result of the increased adoption of multi-cloud technologies; and
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1 (4) 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 (b) **TECHNICAL ASSESSMENT.**—Not later than 1 year
10 after the date of enactment of this Act, the Comptroller
11 General shall submit to Congress and make publicly avail-
12 able a report that—

13 (1) assesses the technical capabilities of existing
14 agency networks to support multi-cloud technology;

15 (2) evaluates any technical capability impedi-
16 ments of agencies that delay the adoption of multi-
17 cloud technology; and

18 (3) includes any recommendations relating to
19 policies and best practices for agencies to address
20 any impediments identified as a result of the assess-
21 ment described in paragraph (1) and the evaluation
22 described in paragraph (2).

23 **SEC. 5. REPORT TO CONGRESS.**

24 Not later than 2 years after the date of enactment
25 of this Act, the Comptroller General shall submit to Con-

1 gress and make publicly available a report assessing how
2 agencies have implemented the guidance developed under
3 section 3(a)(4) to deploy and secure multi-cloud tech-
4 nology architecture that includes multiple cloud computing
5 software vendors.

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