

117TH CONGRESS  
1ST SESSION

# H. R. 5153

To require the Secretary of Defense to establish a cadre of software development and acquisition experts, and for other purposes.

---

## IN THE HOUSE OF REPRESENTATIVES

SEPTEMBER 3, 2021

Mr. BROWN introduced the following bill; which was referred to the Committee on Armed Services

---

## A BILL

To require the Secretary of Defense to establish a cadre of software development and acquisition experts, 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 “Defense Software Ac-  
5 quisition Cadre Act of 2021”.

6 **SEC. 2. CADRE OF SOFTWARE DEVELOPMENT AND ACQUI-**  
7 **SITION EXPERTS.**

8 (a) CADRE OF SOFTWARE DEVELOPMENT AND AC-  
9 quisition EXPERTS.—

1           (1) Not later than January 1, 2022, the Sec-  
2           retary of Defense, acting through the Under Sec-  
3           retary of Defense for Acquisition and Sustainment,  
4           shall establish a cadre of personnel who are experts  
5           in development and acquisition of software. The pur-  
6           pose of the cadre is to ensure a consistent, strategic,  
7           and highly knowledgeable approach to developing  
8           and acquiring software by providing expert advice,  
9           assistance, and resources to the acquisition work-  
10          force in support of the policies established in accord-  
11          ance with Department of Defense Instruction  
12          5000.02, Operation of the Adaptive Acquisition  
13          Framework, dated January 23, 2020.

14          (2) The Under Secretary shall establish an ap-  
15          propriate leadership structure and office within  
16          which the cadre shall be managed, and shall deter-  
17          mine the appropriate official to whom members of  
18          the cadre shall report.

19          (3) The cadre of experts shall be assigned to a  
20          program office or an acquisition command within a  
21          military department to advise, assist, and provide re-  
22          sources to a program manager or program executive  
23          officer on matters pertaining to software at various  
24          stages of the life cycle of a system, including but not  
25          limited to integration, testing, production, certifi-

1 cation, deployment of capabilities to the operational  
2 environment, and maintenance. In performing such  
3 duties, the experts shall—

4 (A) advise and assist in integration of  
5 modern software development practices such as  
6 agile software development; development, secu-  
7 rity, and operations (DevSecOps); and lean  
8 practices;

9 (B) advise and assist in leveraging indus-  
10 try best practices for software development, de-  
11 ployment, upgrades, and sustainment to include  
12 contracting for software as a service, subscrip-  
13 tion models, use of prime contractors to assist  
14 in integration, and other methods for acquiring  
15 or accessing capability;

16 (C) in conjunction with the Cadre of Intel-  
17 lectual Property Experts established pursuant  
18 to section 2322 of this title, develop a strategy  
19 and licensing framework to enable government  
20 procurement of commercial software, to in-  
21 clude—

22 (i) in accordance with section 2377 of  
23 this title, a preference for the acquisition  
24 of commercial software under the license

1 customarily provided to the public, except  
2 as specified in paragraphs (ii) and (iii);

3 (ii) identification of terms or condi-  
4 tions that may be inconsistent with Fed-  
5 eral procurement law;

6 (iii) identification of operational user  
7 needs that may necessitate the negotiation  
8 of customized licenses to ensure authorized  
9 use in unique operational environments;  
10 and

11 (iv) methods and procedures for use  
12 of stand-alone software licensing in cases  
13 where other contract vehicles are inappro-  
14 priate or unavailable;

15 (D) establish and lead cross-functional gov-  
16 ernment-industry teams that include oper-  
17 ational users, data and system architects, ex-  
18 perts in artificial intelligence, developmental  
19 and operational testers, software developers,  
20 and cybersecurity experts to deliver software  
21 rapidly and iteratively to meet the highest pri-  
22 ority user needs;

23 (E) advise and assist in the development of  
24 requirements, acquisition strategy, product sup-

1 port strategy, and intellectual property strategy  
2 for a system;

3 (F) advise and assist in planning and  
4 budgeting for agile software development and  
5 deployment, and the sustainment of software  
6 over the life cycle of the program, to include  
7 consideration of the shifting landscape of con-  
8 tinual cyber threat and evolving cyber require-  
9 ments;

10 (G) conduct or assist with financial anal-  
11 ysis, cost estimation, and valuation of software,  
12 to include agile software development, to in-  
13 clude valuation of embedded software as a  
14 standalone product or as part of modular open  
15 system approach;

16 (H) assist in the drafting of a solicitation,  
17 contract, or other transaction agreement;

18 (I) interact with or assist in interactions  
19 with contractors, including communications and  
20 negotiations with contractors on solicitations  
21 and awards; and

22 (J) foster culture change necessary to en-  
23 able the Department of Defense to embrace and  
24 leverage modern software practices by—

1 (i) recommending policies to ensure  
2 program managers are empowered to set  
3 and maintain the integrity of agile develop  
4 process and priorities; and

5 (ii) educating key stakeholders in con-  
6 siderations regarding the integration and  
7 incorporation of agile software development  
8 practices with systems acquired under the  
9 major capability acquisition pathway.

10 (4)(A) In order to achieve the purpose set forth  
11 in paragraph (1), the Under Secretary shall ensure  
12 the cadre has the appropriate number of staff and  
13 such staff possesses the necessary skills, knowledge,  
14 and experience to carry out the duties under para-  
15 graph (2), including in relevant areas of law, com-  
16 mercial software licensing, contracting, acquisition,  
17 logistics, engineering, financial analysis, cost esti-  
18 mation, and valuation. The Under Secretary, in co-  
19 ordination with the Defense Acquisition University  
20 and in consultation with academia and industry,  
21 shall develop a career path, including development  
22 opportunities, exchanges, talent management pro-  
23 grams, and training, for the cadre. The Under Sec-  
24 retary may use existing authorities to staff the

1 cadre, including those in subparagraphs (B), (C),  
2 (D), and (F).

3 (B) Civilian personnel from within the Office of  
4 the Secretary of Defense, Joint Staff, military de-  
5 partments, Defense Agencies, and combatant com-  
6 mands may be assigned to serve as members of the  
7 cadre, upon request of the Director.

8 (C) The Under Secretary may use the authori-  
9 ties for highly qualified experts under section 9903  
10 of title 5, to hire experts as members of the cadre  
11 who are skilled professionals in software develop-  
12 ment and acquisition, commercial software licensing,  
13 and related matters.

14 (D) The Under Secretary may enter into a con-  
15 tract with a private-sector entity for specialized ex-  
16 pertise to support the cadre. Such entity may be  
17 considered a covered Government support con-  
18 tractor, as defined in section 2320 of this title.

19 (E) In establishing the cadre, the Under Sec-  
20 retary shall give preference to civilian employees of  
21 the Department of Defense, rather than members of  
22 the Armed Forces, to maintain continuity in the  
23 cadre.

24 (F) The Under Secretary is authorized to use  
25 amounts in the Defense Acquisition Workforce De-

1       velopment Fund for the purpose of recruitment,  
2       training, and retention of the cadre, including pay-  
3       ing salaries of newly hired members of the cadre for  
4       up to three years.

5           (G) In implementing this section, the Under  
6       Secretary shall ensure compliance with applicable  
7       total force management policies, requirements, and  
8       restrictions provided in sections 129a, 2329, and  
9       2461 of title 10, United States Code.

10          (H) The Under Secretary shall ensure that any  
11       contractor employee providing services in support of,  
12       or participation in, the cadre established under this  
13       section and is considered a Special Government Em-  
14       ployee as defined by section 202 of title 18, United  
15       States Code, is required to file a confidential finan-  
16       cial disclosure in accordance with the Ethics in Gov-  
17       ernment Act of 1978.

○