

AMENDED UPDATED REQUEST FOR PROPOSAL

To Scale and Enhance

Apprentice Technical Training Program

(Learning Experience Platform (LXP) and Learning Management System (LMS))

BACKGROUND

The WTIA Workforce Institute dba Apprenti (“Apprenti”) was recently awarded a grant from the U.S. Department of Commerce for the Good Job challenge to scale tech apprenticeships at Boeing and across the broader aerospace ecosystem. Over the next 3 years, Apprenti plans to use the proposed funds to place 1,000 apprentices, from mostly underrepresented groups, in cybersecurity and other high demand engineering roles. Apprentices will develop job-ready technical skills during the paid Registered Apprenticeship program which may extend for up to 12 months.

The employers are responsible for providing foundational hands-on technical training and on-the-job developmental experiences that may result in digital credentials and milestone career achievements. Upon completion, apprentices receive a recognized U.S. Department of Labor Registered Apprenticeship credential from Apprenti. Some participating employers may also offer an industry recognized credential.

To place 1,000 apprentices with employers in Aviation and Aerospace roles, a technical platform will be required to support applicant registration, apprentice performance tracking, a training range, apprentice management for Related Supplemental Instruction (RSI), and a Pre-apprenticeship Learning Program. The Pre-apprenticeship Learning Program will be available to the public for consumption at no cost.

Apprenti is issuing this Proposal pursuant to 2 CFR § 200.319 and 2 CFR § 200.320. As part of the Good Jobs grant, Apprenti will subcontract with a qualified firm to improve upon a training and testing environment that is Aerospace and Aviation centric.

The two main components of the project include the delivery of a Pre-apprenticeship Learning Program available to any individual interested in assessing their skills and aptitude for a career in cybersecurity or a technical role in the broader aerospace industry (at no cost to them). The program will build talent in diverse populations including underrepresented people of color, persons with disabilities, veterans, women, and transitioning military. The other component of the project includes the Learning Experience Platform (LXP). The LXP enables delivery of cybersecurity and other aerospace technical roles in the broader aerospace industry. The platform will serve as a testing environment for apprentices to study and work without impacting a company’s deployed codes. This LXP will be open-source and for non-exclusive use.¹ The LXP will be available to training providers in the aerospace industry and to institutions of higher education seeking access for their cyber security training, certificate, and degree programs. This

¹ The LXP environment may include proprietary and/or licensed material. In order for higher education to access this training system at no cost, grant funds will be used to fund licenses as contractually required.

training platform must be free of cost and available and fully supported for no less than five years from the day the platform is made available to the public. The platform will be iterated over time and informed by best practices.

PROJECT CONCEPT

Apprenti requires the selected firm to start work as soon as a contract is executed and that initial enhancements are included in 1Q 2023.

The total funds available for this project is approximately \$500,000 - \$700,000 for this work, and includes:

- Developing the LXP:
 - A public-facing cybersecurity pre-apprenticeship training tool;
 - A Learning Management System (LMS) to:
 - Cover student subscription to an LMS system for a minimum of 1,000 apprentices during the Good Jobs grant lifecycle;
 - Build out the LMS to meet reporting and performance tracking requirements;
 - Build connective API to Salesforce and other apprentice management systems.

Apprenti seeks 1) a firm to help build and implement the LXP and Pre-Apprenticeship Training Program as public access training tools, and to continue to increase the scalability of the LXP and registration platform and, 2) Apprenti is requesting proposals from firms that have the experience and qualifications to complete this work.

SCOPE OF WORK

Apprenti will be subcontracting with a firm with the experience, leadership, and credibility to engage hiring partners with a focus on cybersecurity as well as other technical roles in aerospace and aviation.

This project aims to address the national cybersecurity talent gap in America. With the number of open jobs nearing 1 million and a lack of available talent to fill the openings, the apprenticeship model provides employers an alternative way to find talent. The project will also seek to build talent in non-traditional and diverse groups. As a result, individuals may not know if they possess the skills and attributes required to work in cybersecurity. The Pre-Apprenticeship Training Program will help individuals determine their interest in cybersecurity.

The services listed below are interrelated and Apprenti seeks a firm that can deliver all aspects of the scope of work. These items are targeted at building out a secure system training capability at a cost-effective per learner price point that can scale with large numbers of apprentices.

These items are targeted at building a Pre-apprenticeship Training Program that is openly accessible, and can be provided free of cost to the public. The goal is to provide individuals from diverse populations the ability to determine their interest and aptitude for

cybersecurity.

Pre-Apprenticeship Training Program

The scope of the Pre-Apprenticeship Training Program is to produce a learning experience that enables any individual to assess their core skills and aptitude for a career in cybersecurity. This training program must be free of cost and available and fully supported for no less than five years from the day the program is made available to the public.

The solution would include an interactive core skills and traits assessment of potential and aptitude, foundational learning curriculum delivered in an interactive experience related to the core skills, traits and introduction to cybersecurity that educates them on potential careers, and assessment that demonstrates they have achieved the learning objectives of the foundational curriculum. At successful completion of the training program the individual would get a report of their skills and a digital badge representing their achievement.

Hiring partners would then leverage the achievement of this digital badge as entry into the candidate pool for consideration into the apprenticeship program. At minimum this program will be a great learning tool for people unfamiliar with cybersecurity to identify if a career in this area is a fit and gauge their interest and passion. If they want to pursue a career, then they are already one step in that direction by having a recognized digital credential demonstrating this.

This program will require specific functionality in an apprenticeship learning experience platform (LXP), as described in the next section, in order to realize the capabilities at scale.

Learning Experience Platform (LXP)

In order to deliver the training program, enable its delivery at scale, and support other roles in aerospace and aviation, this project requires a platform that addresses the following conditions.

First, better automate the assessment and down selection of large applicant pools by creating a more engaging assessment and learning process.

Second, expand tracking and learner experience management functionality to more seamlessly monitor apprentice progress. Include proactive alerts to highlight where individuals might need additional support.

Third, establish training range environments to support performance and scalability of the platform to ensure overall integrated, hands-on, and interactive learning experience.

Fourth, enable hiring partners and the aerospace/aviation ecosystem to scale and operationally manage larger cohort sizes in a cost effective way.

Platform requirements to deliver against the full project concept:

1. Open Source Apprentice Testing Platform
 - Refine the design of aptitude, traits, and attitude behavioral testing sequences to meet requirements and inform candidate selection of large candidate pools for technical apprenticeship programs. Support free,

openly accessible aptitude, trait, and attitude testing for new entrants in cyber security and other aerospace career roles. The open platform must be available and fully supported for no less than five years from the day that the platform is made available to the public.

- Create a dashboard view of testing analytics, viewable by the testing provider and allow for the ability to configure apprentice selection criteria.
- Provide a gamified environment with ability to incorporate custom Industry-specific assessments that provides the gamified level up, testing sequence for apprentices.
- Reporting and integration of aptitude testing in the existing platform.

2. Platform Infrastructure for Aptitude Testing and Underlying Training

- Provide cloud infrastructure that allows scalable aptitude testing and the underlying training infrastructure with extensions to integrate into an aerospace/aviation industry infrastructure.
- Increase efficiency of training and licensing cost-reductions.,.
- Provide organization and role-based platform access based on a functional and data protection model that would meet training, and apprentice management requirements generally found in the aerospace/aviation industry.

3. Training Range Platform Enhancements for Aptitude and Cohort Training

- Full integration and data sharing between an aerospace/aviation organization's existing aptitude testing, training range/learning platform, and performance tracking.
- Create a persistent range training environment that can be configured to meet the job operational training requirements generally found in the aerospace/aviation industry.
- Integrate a generalized container range training environment to deliver a curriculum that meets the job scenario-driven training cyber security roles and beyond.
- Retrieve high-fidelity apprentice data from the enhanced range environment to track student performance, state of the learner, and adjust content and training appropriately.

4. Apprentice Management and Tracking System

- Develop an apprentice management and performance module to allow tracking of readiness for aerospace/aviation industry job roles.
- Develop a means to automate the credentialing of registered apprenticeships with the DOL.
- Integrate various surveys, learner-manager-mentor scheduling, and completion verification requirements into execution of cohorts to improve automation across organizations.

- Enhance APIs to allow other disciplines to push and pull information from other training platforms (e.g., software engineering or flight engineering training platform). Generate data requirements definition and requirements for this interface.

5. Platform Scalability Enhancements

- Create, develop, and produce scalability for a system to allow greater than 2000 apprentices in concurrent cohorts across multiple training roles both in and outside of cybersecurity.

Alternative Scope of Work

If a proposer has previously developed a platform that meets all or a majority of the Scope of Work, Apprenti will consider a proposal in which the proposer may own the platform and Apprenti will license for use of the product.

All other Submission Requirements remain the same.

QUALIFICATIONS

Proposer should have significant experience in aptitude testing, training, and assessing of cybersecurity staff in the aerospace industry with experience in training platform support for areas beyond cybersecurity, such as data sciences and flight engineering.

The Good Jobs grant has a prime focus on diversity, and your firm should have experience working with underrepresented groups in technology across multiple industries.

Please describe in detail how your firm's skills and experience align with the required qualifications (listed below) and will lead to successfully meeting the above Scope of Work:

- Must have expertise and credibility in the testing, training, and transitioning of underrepresented individuals successfully into cybersecurity professionals that are job ready to perform tasks in a specific role.
- Must have a history of successful transitioning of individuals with cybersecurity background and no background in cybersecurity into specific roles in the aerospace industry.
- Ability to seamlessly integrate the added capabilities and enhancements within the existing third party, proprietary platform, meeting the security, permissions, and interfaces – providing all information required to properly operate across the platform's interfaces.
- Has demonstrated the ability to build and scale across multiple cohorts and a history of training individuals into specific corporate roles.
- Has experience as a cybersecurity training, aptitude testing and assessments. Experience with each is required.
- Experience in managing corporate wide cybersecurity reskilling and upskilling programs.
- Must have strong industry domain expertise at minimum in cybersecurity, and prefer other digital skills such as software engineering and flight engineering. Must have previous experience developing and delivering educational content in both academy and corporate environments.
- Demonstrated experience working with underrepresented groups in technology, and specifically in high school graduates, career changers, and community college programs.

ADDITIONAL REQUIREMENTS

Proposers must agree to meet the requirements listed in Appendix A.

LXP IMPLEMENTATION DUE DATE

Early Q2 2023.

ESTIMATED BUDGET

Apprenti will be accepting only fixed fee quotations.

SUBMISSION REQUIREMENTS

- Cover letter that includes you or your business's legal information.
- Description of how you or your firm's skills and experience align with the required qualifications and will lead to successfully meeting the Scope of Work.
- Resume or statement of qualifications for individual(s) who will be performing the work.
- For transparency purposes, a fee schedule including hourly rates, miscellaneous fees, and other anticipated expenses.
- Two to three professional references.
- Copy of current required business license(s).

Proposers will not be evaluated upon the length of their proposal and are encouraged to focus on the quality and brevity of their submission.

SUBMISSION INSTRUCTIONS

Your RFP response is due no later than 4:00pm Pacific Standard Time, January 3, 2023. Late submissions will not be accepted or considered. Apprenti assumes no responsibility for formatting or transmission errors.

Responses must be submitted in MS Word or PDF format by email to Allan Cave, Chief Operations Officer, acave@apprenticareers.org. Responses must **NOT** be mailed.

SELECTION AND EVALUATION CRITERIA

Proposals will be evaluated to determine the person or firm best suited to complete the project's scope of work based on qualifications, experience, references, and fixed fee quotation.

Apprenti may choose to interview one or more responders but reserves the right to choose or to contract with the person or firm that best meets the qualifications without conducting any interviews. Apprenti also reserves the right to reject all proposals.

Submitting a proposal or being chosen as the most qualified proposal does not guarantee a contract will be executed.

Evaluation Criteria	Value
Cover letter that includes your business's legal information.	Y or N
Ability to comprehend and articulate scope of work	25%
Completion of Appendix A. <u>Description of how your firm's skills and experience align with the required Qualifications and will lead to successfully meeting the Scope of Work.</u>	25%
Resume or statement of qualifications for individual(s) who will be performing the work.	15%
Fee schedule including hourly rates, time to execute, miscellaneous fees, and other anticipated expenses.	25%
Two to three professional references.	10%
Copy of current business license(s).	Y or N

TIMELINE

Apprenti intends to complete this process expeditiously.

RFP issued	November 30, 2022
Submissions due	<u>January 3, 2023</u> December 19, 2022 by 4:00pm Pacific Standard Time
Possible finalists interviews	Week of <u>January 2, 2023</u> December 19, 2022
Work begins	Upon execution of contract
LXP implementation due date	Late Q1/Early Q2 2023

QUESTIONS

Questions regarding the Scope of Work, Submission Requirements, or the RFP process are to be addressed to Marie Trudelle, Operations Manager, at mtrudelle@apprenticareers.org, with a copy sent to Eileen Norton, General Counsel, at legal@apprenticareers.org.

APPENDIX A
ADDITIONAL REQUIREMENTS

General Requirements

The successful candidate must comply with all the terms and conditions of the Award, including, but not limited to the applicable OMB cost principles, and applicable regulations at 2 CFR part 200 and 13 CFR Chapter III.

Discrimination Laws

Contractor shall comply with all federal, state, and local nondiscrimination laws, regulations, and policies. Contractor noncompliance with certain anti-discrimination laws may result in canceling the contract.

Required Disclosures

Contractor shall disclose any potential or actual conflicts of interest, including but not limited to, any recent business dealings that could be perceived as a conflict, any current or recent state employee working on behalf of Contractor. Contractor shall also certify that it has not been debarred from contracting with the Federal government and shall further disclose if there are any legal actions against it.