

(DRAFT) Statement of Work
SBIRU

1.0 INTRODUCTION.

The Small Business Innovation Research (SBIR) program was established by Congress in 1982 with a statutory purpose to strengthen the role of innovative small business concerns (SBCs) in Federally-funded research or research and development (R/R&D). Specific program purposes are to: (1) Stimulate technological innovation; (2) use small business to meet Federal R/R&D needs; (3) foster and encourage participation by socially and economically disadvantaged SBCs in working in technological innovation; and (4) increase private sector commercialization of innovations derived from Federal R/R&D, thereby increasing competition, productivity and economic growth. The Small Business Technology Transfer (STTR) program is a sister program to SBIR, established by Congress in 1992 with a similar statutory purpose as SBIR. A major difference in the two programs is that the STTR requires the small business to have a research partner consisting of a University, Federally Funded Research and Development Center (FFRDC), or a qualified non-profit research institution.

2.0 SCOPE

- 2.1 The contractor shall develop, host, and maintain a single federal-wide on-line university (SBIRU.com) through which innovative small business technology firms in the United States are provided information and training related to the SBIR and STTR programs, the operation and management of small (i.e., less than 500 employee) research firms, and the efforts necessary to transition technology from early stage research to product manufacturing.
- 2.2 For new (potential/Phase 0) firms SBIRU shall provide, but not be limited to the following:
 - 2.2.1 information on the SBIR and STTR programs;
 - 2.2.2 the solicitations and topics of interest;
 - 2.2.3 what is required for a good proposal;
 - 2.2.4 how to determine if the program requirements match the firm's skills, capabilities, and goals, and;
 - 2.2.5 where to find assistance in their state or region.
- 2.3 For existing SBIR/STTR program participants (Phase I, Phase II and Phase III), the training system delivers courses across a broad spectrum of business and technical disciplines designed to enable both novice and experienced SBCs to achieve program goals.

- 2.4 The training shall be managed and coordinated to ensure appropriate training methodologies and strategies are developed to meet the varied learner needs and learning styles.

3.0 REQUIREMENTS:

- 3.1 The Contractor is responsible for acquiring and maintaining all software licenses and payment of all use/registration fees associated with the establishment and operation of SBIRU.
- 3.2 Training delivery shall be available in as many formats and methods as possible and shall maximize use of electronic tools to enable on-demand/just-in-time learning as well as collaboration and interactive group learning (e-learning, virtual classroom, VLE, etc.) without co-location.
- 3.3 The contractor is required to establish an initial operating version of SBIRU within 6 months of contract/delivery order award. An initial operational capability shall consist of:
- 3.3.1.1 establishment of the SBIRU infrastructure,
 - 3.3.1.2 import of existing user profiles,
 - 3.3.1.3 registration of new users and creation of new user profiles,
 - 3.3.1.4 launch of SBIRU.com website, and
 - 3.3.1.5 the ability to deliver training for initial course offerings identified in Appendix A.
- 3.4 A kick-off meeting shall be held at the Government office (Arlington, Virginia) within 14 days of award to discuss a ramp-up plan and strategy for the launch of services.
- 3.5 The SBIRU shall, at a minimum have the following features and operational functions.
- 3.5.1 ***Design and Maintenance of SBIRU Mandatory Features***
- 3.5.1.1 The system is commercial-of-the-shelf (COTS) software without modification or any proprietary changes.
 - 3.5.1.2 All system software is “Commercial-Off-The-Shelf” (COTS) technology with no developmental/custom modifications. All system configurations must be “out-of-the-box” changes.

- 3.5.1.3 The university is able to accommodate a large number of simultaneous on-line users with random spikes reaching 2,000 users without any degradation of service (average response time should be one second or less per page).
- 3.5.1.4 The web portal supports numerous browser types (IE, Firefox, Mozilla, etc.) and operating systems (Microsoft, Apple, Unix, iOS, Android, etc.) and not require proprietary software loads, adaptors, or multiple plug-ins to operate.
- 3.5.1.5 There are Help features to support users and administrators and a Helpdesk with appropriate SMEs available for users with a minimum of 2 hour response time Monday through Friday 0600-2000 across all U.S. time zones (including Hawaii).
- 3.5.1.6 There are security measures to protect individual user data as well as intellectual property contained within the system from accidental or inappropriate access or disclosure.
- 3.5.1.7 There is a capability for self-registration to include Security Verification (ID and Password).
- 3.5.1.8 There is a capability to support multiple time zones. System availability must be tracked and reported. Availability must be 99% across all U.S. time zones including the Hawaiian Islands.
- 3.5.1.9 There is an ability to easily customize the business rules, user profiles, and screens for each implementing organization without significant delay or IT input.
- 3.5.1.10 There are three distinct operating environments available at all times – 1) the operational environment, 2) a test environment which duplicates the operating environment in terms of systems but may have archived student and course data, and 3) the back-up system which will duplicate the operational environment and never have data more than 24 hours older than the operational environment.

3.5.2 ***Design and Maintenance of SBIRU Highly Desired Features***

- 3.5.2.1 The system is Section 508 compliant.
- 3.5.2.2 There are clear, specific error messages and diagnostics that aid in troubleshooting. A generic message that is the same for all errors is not acceptable. Messages should be understandable not just by technically-inclined tool administrators, but also content developers.
- 3.5.2.3 The cloud hosting environment supports load balancing and redundancy.
- 3.5.2.4 There is a system to allow users to retrieve a lost password.

- 3.5.2.5 There is an intuitive search experience included across all content (catalogue, reference material, courses, forums, etc.)
- 3.5.3 ***User Management System Mandatory Features***
- 3.5.3.1 There is the capability to create E-mail and SMS Notifications that can be tailored.
- 3.5.3.2 There is the capability to create Multiple Roles (Student, Firm (SBC), Project Manager, Approver, Instructor, and Administrator).
- 3.5.3.3 There is the capability to create User Groups and group management capabilities.
- 3.5.3.4 There is the capability to import and export users and profiles.
- 3.5.3.5 There is the capability to track course completion.
- 3.5.3.6 There is the ability to create course schedules and waiting lists.
- 3.5.3.7 There is an ability to create course hierarchies.
- 3.5.3.8 There is an ability to have “Free” and “Paid” courses.
- 3.5.3.9 There is an ability to restrict access to courses based on specific criteria (e.g., by federal agency or user group).
- 3.5.3.10 There is the ability to define prerequisites and restrict access to courses until the prerequisites are met.
- 3.5.4 ***User Management System Highly Desired Features***
- 3.5.4.1 There is the capability to create User Profiles that determine course recommendations.
- 3.5.4.2 There is the ability to automatically delete User/Profile due to inactivity.
- 3.5.4.3 There is the capability to prepare student Individual Development Plans.
- 3.5.4.4 There is an ability to create transcripts and course certificates.
- 3.5.4.5 There is an ability to create a course catalogue of available courses.
- 3.5.5 ***Course Management System Mandatory Features***
- 3.5.5.1 There is an ability to conduct surveys and configure feedback.
- 3.5.5.2 There is the capability to store scanned forms, MS Word documents, PowerPoint, PDFs, etc. at the course level.
- 3.5.5.3 There is an ability to support virtual classrooms to deliver learning in real time to widely dispersed audiences.
- 3.5.5.4 There is a capability for students to ask questions of instructors in real time.
- 3.5.5.5 There is a capability in the virtual learning environment to support testing and assessment.
- 3.5.5.6 There is a synchronous shared whiteboard (equivalent to a traditional flipchart or chalkboard).

- 3.5.5.7 Session recordings are available for playback at a later time.
- 3.5.5.8 There is support for blended learning activities (e.g., webinar, pre-test, instructor-led course via virtual classroom).
- 3.5.5.9 There is both pre-testing and post-testing capabilities (including reports that compare pre- and post-test performance).
- 3.5.5.10 There is the ability to provide for an administrator to perform instructor management tasks if the instructor is unable to do so.
- 3.5.6 ***Course Management System Highly Desired Features***
 - 3.5.6.1 There is an ability to maintain Course Forums, CWS, Chat, Live Conference, and E-mail.
 - 3.5.6.2 There is the capability to store trainer support information (i.e., facilitator guides, instructions, etc.).
 - 3.5.6.3 There is an ability to allow students to complete learning using mobile devices
 - 3.5.6.4 There is a collaboration feature scalable to support e-meetings and enterprise-wide activities (e.g., 2,000 attendees) without requiring IT support.
- 3.5.7 ***Course Content and Delivery Mandatory Features***
 - 3.5.7.1 There is a capability to “tailor” the course content and management implementation across the various federal agencies while maintaining the core implementation infrastructure and strategy.
 - 3.5.7.2 There is an ability to support training development including meeting with Government SMEs to determine learning objectives, researching and collecting data and materials to support course development and delivery, assisting in the design of course content, and working with the SME on appropriate delivery methods and tools.
 - 3.5.7.3 The authoring tool allows use of a wide variety of instructional strategies and learning technologies including social media, mobile learning, and immersive technologies (simulations, games, virtual worlds).
 - 3.5.7.4 There are templates for reference and resource pages (possibly in Word, for conversion to PDF)
 - 3.5.7.5 There is the ability to allow versioning and verification of currency including reference materials and supporting documents.
 - 3.5.7.6 There is the ability to support multiple delivery methods and presentation formats.
 - 3.5.7.7 There is the ability to easily review materials and course content and, easily update individual shared learning objects across courses.

- 3.5.7.8 There is the ability to import/export existing courses.
- 3.5.7.9 There is an ability to deliver individual courses in varying formats.
- 3.5.7.10 There is support for the following question types: multiple choice, fill-in-the-blank, drag-and-drop, and matching.
- 3.5.7.11 There is testing system support: randomizing, hints, limiting number of attempts, practice (unscored).
- 3.5.7.12 There is an ability to randomize test questions and it must maintain a database of questions based on course content/objective.
- 3.5.7.13 There is a capability for the administrator to configure how many times a student can take a test.
- 3.5.8 ***Course Content and Delivery Highly Desired Features***
 - 3.5.8.1 There are authoring tools and templates available to assist Government SMEs in the development and presentation of organization specific training and conversion of existing training materials into other delivery formats.
 - 3.5.8.2 There is a library of reusable components (scripts, images, text pieces, etc.). If the elements in this library are updated or changed, these changes must propagate throughout the course; and should be sharable across courses, not just within the same course.
 - 3.5.8.3 There is a method for collecting existing course content.
 - 3.5.8.4 There is the ability to develop new courses based on student requests.
 - 3.5.8.5 There is the ability to document achievement of learning objectives.
 - 3.5.8.6 There is support for SkillSoft's Open Learning Services Architecture (OLSA) as well as other common file formats (streaming media, graphics, audio, animations, etc.).
- 3.5.9 ***Reporting Mandatory Features***
 - 3.5.9.1 There is the capability to access monitoring reports by User.
 - 3.5.9.2 There is reporting on the courses and number of attendees for a given period of time.
 - 3.5.9.3 There is reporting on the number of students on wait lists.
 - 3.5.9.4 There is reporting on survey results and instructor feedback results.
 - 3.5.9.5 There are reports on the number of students attempting/completing paid courses by authorizing organization.
 - 3.5.9.6 There is Ad Hoc reporting capability on students, user groups, courses, instructors, exams, and web site access in varying exportable formats (csv, txt, pdf, xls).
 - 3.5.9.7 There is the capability to report on the results of course exams down to the question level.

- 3.6 Full operational capability (i.e. the ability to provide all of the courses listed in Appendix A) within 18 months of contract/delivery order award.

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