

1. Appendix

1.1 Initial Backlog Items

1.1.1 General

This section provides information on the current state of required functionality anticipated to be delivered under this Task Order.

Consistent with Agile development methodology, these backlog items are intended to guide Offeror proposals by indicating some of SBA's anticipated needs. **Nothing in this section should be construed as a complete statement of functionality the SBA will require; rather, these details constitute a partial statement of minimum functionality needed.**

The contractor will be responsible for using an agile development approach to deliver this functionality, and all other functionality that will be necessary for achieving the objectives laid out in this RFQ.

1.1.2 Certification projects (includes the Woman-Owned Small Business, 8(a), HUBZone, and Pro-Net Projects)

The goal of the Certification projects (including the WOSB, 8(a), HUBZone, and Pro-Net projects) is to integrate all the SBA contractor certification processes—8(a), HUBZone, and WOSB, as well as other related workflows (including any still performed by Pro-Net)—into a single web application, using a modern open-source technology stack, running on cloud infrastructure. Each certification process will access a shared copy of SAM.gov business profile data, but manage its process-specific data in its own tables. Documents will be uploaded to a secure cloud system but managed and accessed through the app itself. Once the cloud system is ready, the existing databases, applications, and document stores for the current certification systems will be deprecated as appropriate.

Pro-Net is an SBA internal system where the results of status determinations (e.g. size determinations) are recorded. This system interfaces with the underlying SBSS-CCR database to convey the findings of such determinations, which in turn, are searchable via the Dynamic Small Business Search (DSBS) and fed back into the System for Award Management (SAM), via the regular updates from SBSS-CCR to SAM.

A partial list of minimum functionality needed includes the following capabilities:

- Tracks the completion of a contracting certification application package for applicant and SBA employee
- Integrates with SBA electronic systems so that data does not have to be re-entered, for both applicant and SBA employee
- Organizes the certification package to support eligibility determinations, for both applicant and SBA employee
- Implements a solution that generates SBA forms and a complete certification package based on small business contractor questionnaire answers
- Generates the certification package and documentation

- Includes electronic signature capability that leverages encryption
- Includes business intelligence to support eligibility filtering and decision making
- Uses data inputs to generate forms and supporting documents
- Integrates with a document management system that includes workflow to track the completeness of documents
- Generates contracting certification materials that are compliant with SBA operating procedures
- Implements a solution that utilizes intuitive questions and answers to navigate the user completing SBA forms based on SBA rules and regulations
- Any changes in the data fields used to generate application documents will result in an automatic change to those documents
- Tracks and alerts the applicant and SBA employee if any documents are missing
- Includes workflow that tracks documents required at each stage (e.g., at time of application, decision and annual renewal). Provides this for both applicant and SBA employee
- Provides audit tracking of users that view or edit a record, for both applicant and SBA employee
- Leverages software development best practices so that the software can be updated as there are changes to SBA programs and SOPs
- Allows SBA personnel to access documents that should be maintained based on SOP requirements
- Determines eligibility for an applicant based on a decision tree that considers the certification guidelines and key eligibility criteria as defined in SBA's regulations and the relevant SOPs, and provides validation of same eligibility for the SBA employee automatically
- Generates a closing checklist for applicant and SBA employee that identifies requirements for completing certification applications
- Tracks and reports applications as they move through the various stages of the certification workflow to identify bottlenecks within certification processing

1.1.3 E-Signature

The certification systems implemented should have the following e-signature functionality at a minimum:

- Support electronic signature solutions that are technology-neutral and scalable to up to 100,000 new signatures a year.
- A process for identity establishment.
- Allow signatures to be maintained in a document management system.
- Support cryptographically based digital signatures created with a private cryptographic key that corresponds to the public key specified in a digital credential that is recognized by the Federal Bridge Certification Authority at Medium Hardware or High assurance, or by the COMMON Policy at the Common Hardware assurance level (at Level of Assurance 2 and higher).
- Include an evidence of intent to sign that is included both in the record being signed and in the on-screen signing process. Such evidence of intent to sign shall be clearly provided in both places, pursuant to an appropriate signing ceremony that makes it

unmistakable to the signer (i) that he/she is signing the record (not doing something else), and (ii) the reason he/she is signing.

- Support electronic signature solutions that track the reason for signing.
- Portable so that signing is not dependent on location, but can occur at several and changing places.
- Include a signature process for multiple signers on same record.
- Include a signature process for in-person transactions and for remote transactions.
- Support an electronic signature solution that requires the signature to be made a part of the record and complies with acceptable recordkeeping requirements established by the National Archives and Records Administration (NARA).
- Implement an electronic signature solution that utilizes a cryptographic signing process whereby a hash of the content of the record being signed is incorporated into the signature data, so that there is an intrinsic relationship between the signature and the record signed. The signing data shall be either attached or appended to the record signed, or a database-type link shall be established between the signature data and the record signed.
- Include an electronic signature process that validates, identifies, and authenticates the signer.
- The signer to be identified and authenticated by reference to a digital certificate issued at Level of Assurance 2 or above, and contains the public cryptographic key that corresponds to the private cryptographic key used to create the digital signature for the record.
- Electronic signature process that establishes integrity of signed record and defines an attribution process. The attribution process shall establish and confirm that a specifically identified person is the source of a record or signature.
- Support the initial establishment and verification of identity to provide adequate linkage to a digital signature process and solution (at a level of assurance of 3).

1.1.4 Document Management

The certification systems implemented should have the following document management functionality at a minimum:

- Allows business rules/controls to be defined for validating a contracting certification application based on SBA criteria
- Tracking of communication
- An online training and support manual for each project
- Maintenance of Electronic Records. The Contractor shall maintain records electronically for as long as SBA record retention policies require
- The Contractor shall support identity Federation standards which include:
- Web services-based Federation which includes enabling the sharing of identity information between security domains;
- Security Assertion Markup Language (SAML) 2.0 or the current standard;
- The Internal Revenue Service (IRS) shall be the preferred identity provider.
- Roles-based user profiles
- Tracks all forms of documents SBA will accept for uploading --.pdf, xls, word, etc.
- Support checklists that can be automated using the built in workflow functionality.
- Track data based on set categories. Document exceptions will be flagged and tracked for future reporting.

- Utilizes workflow to track the grant of initial certification and ongoing renewal information sharing/collaboration;
- Search capability;
- Allows the SBA to define the risk management metrics for waste, fraud and abuse. The system shall also display the metrics using a dashboard
- Uploading of all contracting certification forms and documentation including but not limited to those listed in the Form 1010
- Uploading of documents in Word, .pdf., and Excel formats
- Allows a user to submit the package using a “wet signature” or electronic signature.
- Prints a certification application and stores it in alternate formats (i.e. pdf, Word)
- Offers notification functionality
- Evaluating and tracking of portfolio trends and performance via a dashboard;
- Workflow for data analytics and intelligence
- Supports electronic signature.
- Integrates with the to-be environment outlined in this document.
- Provides data store/warehouse capabilities of stored electronic documents.
- Provides data and business analytics that will be used to support the organizational strategic goals, including managing workflow in a timely manner.
- Archive data that can be retrieved based on a small business contracting entity.
- Support tracking documents using a workflow tools that alert if documents are missing.
- Support the virtual retrieval of documentation.

1.1.5 Mentor-Protégé, Joint Venture Approvals, and other Applications Project

The goal of this project is to build workflows for managing Mentor-Protégé Approvals and Joint Venture Approvals, and other SBA government contracting-related applications which manage records related to individual businesses.

The Mentor-Protégé, Joint Venture Approvals and other Programs project would support the automation of the current paper-based processes for the 8(a) Business Development Program’s Mentor-Protégé and Joint Venture agreements review and approvals process. This project would allow applicants to apply for approvals of Mentor-Protégé Agreements and Joint Venture Agreements electronically, including document submission, allow signature, allow separate workflows to support District Office and Headquarters review of agreements, provide reports on activities of approved Mentor-Protégé and Joint Venture arrangements, and have the approved Mentor-Protégé and Joint Venture Agreements searchable by contracting officers (likely via the new Search system). The Mentor-Protégé system may need to expand based on the potentially expanding scope of the mentor-protégé process at the SBA.

1.1.6 Small Business Search Project

The goal of this project is to produce a small business search tool to help SBA officials, procurement officers at other government agencies, and other users find small businesses to perform government contracts. As a partial list of minimum functionality needed, the tool should be able to:

- Scrape the web and other data sources for additional data on the firms already in the SAM.gov/DSBS databases
- Scrape the web and other data sources for data on small businesses not in the SAM.gov or DSBS databases
- Take data, words and information from all available web-based content pertaining to the roughly 28 million small businesses in the United States, distinguish between those same small businesses with similar identifiers (e.g. distinct businesses that happen to have the same name), eliminate the low-value information for each business, and attach the high-value information to a profile for each business that can then be searched by the new search tool and be viewed by SBA employees and federal contracting officers. SBA will own the data collected in this manner.
- Replace the current Dynamic Small Business Search with modern, more intuitive search functionality
- Integrate publically accessible data from external sources of information about individual firms
- A “Google-like” text entry box with faceting that facilitates exploration rather than selectivity
- Expose only the most commonly used filtering conditions by default, such as NAICS code and small business certifications
- Return results in relevance order
- Track and monitor usage so program developers know what to improve
- Provide a better way for businesses to update their profiles, perhaps with a “LinkedIn-like” landing page
- Link profiles to SAM.gov, so that businesses can update their profile in one location
- Increase search coordination with SAM.gov, so that contracting officers using SAM.gov to search for small businesses get the best results possible
- Include additional data such as past performance information
- Include bookmark functionality to help procurement officers (or any logged-in user) track results
- Provide the ability to automatically or manually save queries
- Take government-only data into account for appropriate logged-in users

1.1.7 Data Analytics Project

The goal of this project is to produce a business intelligence application giving interactive access to reports needed by managers, business analysts, and leadership in the SBA. The data involved is not limited to the data collected through the contracting certification and small business search application; rather, it includes all data on small businesses that is collected by the SBA. A partial list of minimum functionality needed includes:

- A front end customized to the needs of the SBA using a business intelligence and reporting tool. It should be cloud-hosted in the same environment as the new certification applications, and use data from the newly migrated database developed for use by those applications.
- An Extract Transform Load (ETL) process to make existing data accessible and in a useful format for the analytics engine.
- A report designer to allow developers to add new types of reports to the engine.

- A dashboard that give users convenient interactive access to their reports in the form of business graphics and spreadsheets.
- Reports generated with the data analytics tool should meet the business requirements of SBA leadership at least as well as their current system of hand-generated reports
- The number of one-off, hand-generated database queries written to support data analysis requests should be steadily reduced. The product's goal should be that zero such queries should be required.
- The front end must be readily usable by business analysts and produce reports in their preferred formats
- Reports must be able to be created on the fly and results imported into Excel or viewed within a browser immediately

1.2 Figures 1 and 2 – Office of Government Contracting and Business Development Systems



Government Contracting Systems (Fig. 1)

