

NASWA Interstate Connection Network (ICON)



Request for Proposal – ICON System Modernization

1.0 Background and Purpose

The purpose of this Request for Proposals (RFP) is to seek a contractor who can provide the National Association of State Workforce Agencies (NASWA) Center for Employment Security Education and Research (CESER) with a technical strategy for modernizing its Interstate Connection Network (ICON) system, and then incrementally deliver in accordance with that strategy.

The ICON is the system that allows State Workforce Agencies (SWAs) to request and receive data for use in the filing and processing of combined wage claims, military, and federal claims for unemployment insurance (UI). The system provides for the exchange of data between SWAs as well as federal partners. Portions of the ICON system have been migrated to Amazon Web Services (AWS) GovCloud environment using a lift and shift methodology to address scalability needs. However, the project associated with this RFP is to modernize the business applications/exchanges and move to cloud technology to better suit the needs of the current landscape, and to redesign and re-engineer them in the process.

Selected groupings of current business applications/exchanges will be re-engineered with the following end goals in mind:

***Please see Attachment 1 for a Glossary of Acronyms**

- A. Migrate completely off the current mainframe with a flexible, adaptable, extensible, portable, evolvable architecture comprised of modules or components.
- B. Remove the need to maintain multiple connection types for data exchange through creating and providing methods to move away from SNA\EE connection methods to remove IBM mainframe technologies dependency.

To achieve this vision, CESER/NASWA is seeking a Contractor who can provide iterative software development services for ICON, in partnership with SWAs, using an encasement strategy to simplify the existing business processes and ease the transition off the mainframe and into the modernized system. The result of this RFP will be a firm fixed price contract for 24 months to develop, implement, and host the updated business applications/exchanges.

No proposal will be accepted that requires a minimum dollar amount or guarantees a quantity of purchase.

Background

1.1.1 About NASWA and CESER

NASWA is the national organization representing all 50 State Workforce Agencies (SWAs), D.C. and U.S. territories. These agencies deliver training, employment, career, and business services, in addition to administering the unemployment insurance, veteran reemployment, and labor market information programs. NASWA provides policy expertise, shares promising state practices, and promotes state innovation and leadership in workforce development. CESER is a 501(c)(3) sub-entity of NASWA that operates and manages ICON programs in support of the SWAs.

1.1.2 About ICON: Management Structure and History

CESER/NASWA, on behalf of the SWAs, has been the ICON grant manager, assigned by the United States Department of Labor (DOL) since June 2018. One of the biggest pieces of ICON is in the administration of the Interstate Benefits (IB) program. SWAs administer the IB program under a voluntary cooperation agreement among States called the Interstate Benefit Payment Plan (IBPP), which was established in 1938. The plan provides a standard method to pay unemployment compensation benefits to those unemployed individuals who have earned unused wage credits or accumulated unused credit weeks under the unemployment compensation laws of one or more States, and who otherwise might be denied benefits because they are no longer present in a State or State(s) in which their benefit wages were earned and/or credit weeks accumulated. Currently all States and Canada are signatories

of this agreement. States include the District of Columbia, the U.S. Virgin Islands, and Puerto Rico.

The goals of the ICON program are described below. The Contractor who implements reengineered business applications/exchanges must deliver in alignment with these goals.

Program Delivery Goals

- UI program delivery to support combined wage, ex-Service Member and Federal Employee claim processing that is seamless and delivered without delay through the ICON system
- ICON is prepared for any future unanticipated and drastic increases in unemployment and existing infrastructure and staff can easily handle increased program and system demands.
- The CESER/NASWA team works closely with SWA stakeholders, DOL, and members of the NASWA UI Committee's Subcommittee on Interstate Benefits (IB) to gather states needs and goals for incorporation into the project plan. CESER/NASWA ensures the needs of the SWA and federal agency partners are met to ensure program accuracy and timeliness.

ICON Operational Goals

- The system allows for secure and efficient querying of data as needed to operate and monitor the business applications/exchanges.
- The system provides traceability of transactions for easier troubleshooting.
- The SWAs can test all ICON data exchanges from the unit level to complete round-trip, end-to-end testing in a robust method/environment.
- The SWAs are provided methods to identify errors within the data and are prevented from transmitting erroneous data.
- ICON's technology is adaptable for new or changing needs.

1.1.3 About ICON: Processes and Technical Overview

The ICON system provides for the exchange of data between SWAs as well as federal government partners, through 36 distinct business applications. ICON Hub business applications/exchanges are classified into three main areas: Real-Time, Batch and Web-hosted.

| System Classification | Purpose |
|--|--|
| Real-time Interstate Benefit business applications/exchanges | <p>SWAs use four real time applications to verify claimant identity and determine if wages, claims, or overpayments exist in another state. SWAs can view detailed information on wages and claims from another state to determine where the claimant should be filing for benefits.</p> <p>SWAs can also submit information on withdrawn or cancelled claims.</p> |
| Batch applications | <p>Once it is determined that a claimant is filing a combined wage claim, Ex-Military service member claim, or Federal employee claim, several processes are used to exchange information for the administration of these claim types. SWAs use multiple exchanges in a sequenced order to accept wages from other SWAs or federal partners, as well as to control records.</p> <p>The batch applications also support quarterly state billings, crossmatches, and other processes critical to the operations of the proper payment of benefits.</p> |
| Web-Hosted Applications | <p>The UI-ICON website hosts several web applications used by states to facilitate the recovery of overpayments, Federal Billing and Claims address directories, and Military and Federal agencies billings.</p> <p>The site also hosts handbooks for use by SWAs to access information on how other states' rules are applied.</p> |

Real-Time business applications/exchanges currently support SNA/EE (LU6.2), Transmission Control Protocol/Internet Protocol (TCP/IP), Simple Object Access Protocol (SOAP), and Web Services connections. SWAs may use a combination of methods for various business applications/exchanges.

Batch business applications/exchanges currently support SNA, File Transfer Protocol Secure (FTPS), Secure File Transfer Protocol (SFTP), and Web Services connections.

Data sent via FTPS or SNA/EE (LU6.2) protocols are in Extended Binary Coded Decimal Interchange Code (EBCDIC) format. For other connection types processed by the mainframe, data sent in American Standard Code for Information Interchange (ASCII) format is converted to EBCDIC at the hub for processing. Data sent using SFTP is in ASCII format.

ICON interfaces with its data sources and requesters in multiple ways: ICON provides COBOL model code, but states use a combination of software languages that they have customized for their own UI benefits systems. The SWAs are responsible for building the integrations to connect to ICON themselves.

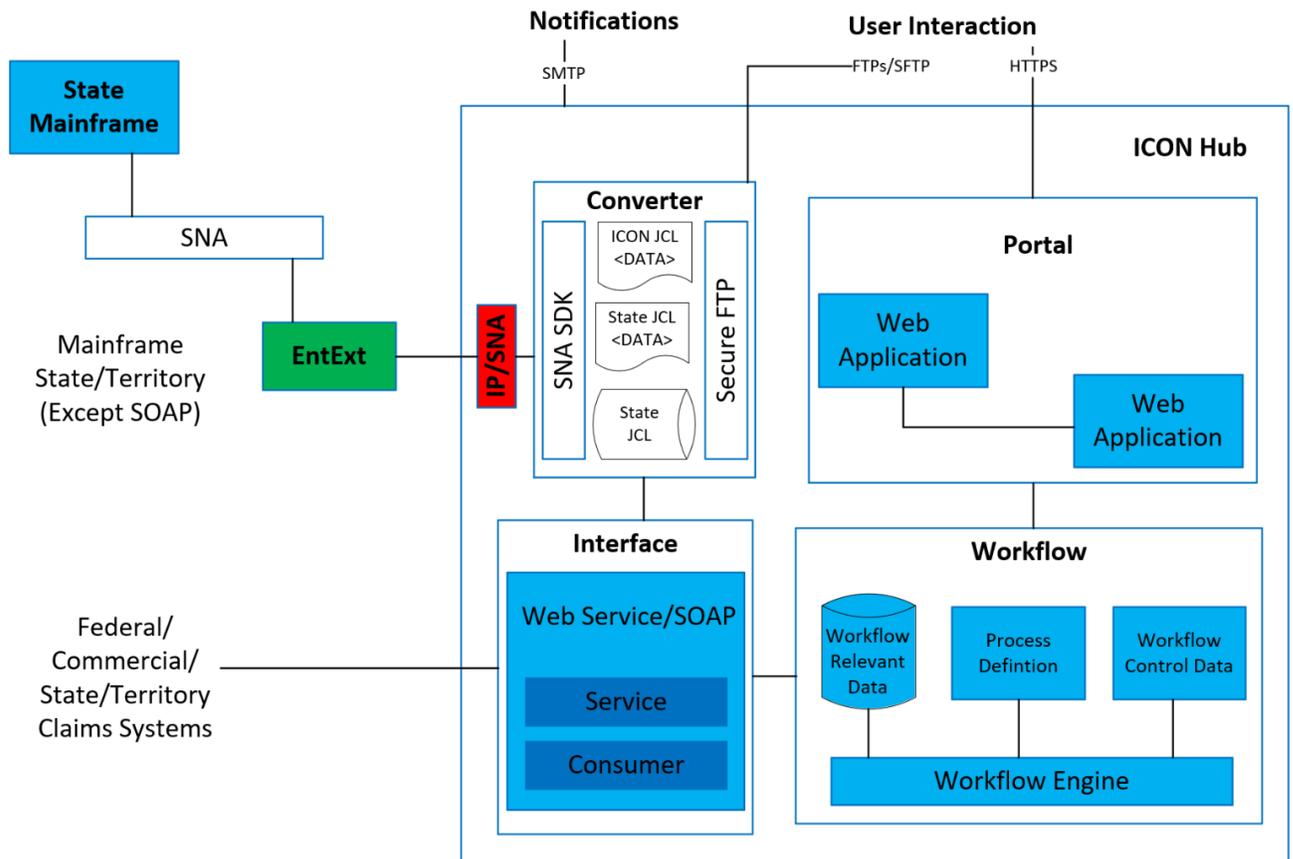


Figure 1: High Level Current Communications

Figure 1 is an overview of current communications methods and workflow with the mainframe

2.0 Scope

2.1 Problem

The current ICON environment has become difficult to maintain:

- Complexity accrued across multiple areas over time due to various policy, law, and program changes.
- Complex documentation with limited information on how the states need to program their systems to ensure quality data is transmitted.

- Limited checks at the hub to ensure the quality of the data sent.
- Complexity of transmitting data generated from Java and .Net code bases to COBOL mainframe environment, then transmission of the data back to the Java and .Net code bases, which creates issues with data quality and control.
- eXtensible Markup Language (XML) serialization and de-serialization at the state level to accommodate multiple communication methods.
- Complexity of having many ways that states connect with ICON.
- Lack of a comprehensive User Acceptance Test (UAT) environment to allow states to test end-to-end functionality prior to implementation.
- Processes generally have an independent purpose and data is not shared across multiple business applications/exchanges.

Additionally, the complex interactions of the business applications/exchanges have resulted in inefficiencies over time.

2.2 Encasement strategy

As CESER/NASWA begins to modernize ICON, new sub-systems will need to be developed in parallel with the current vendor's maintenance of existing systems to reduce transition risks until such time that all business applications/exchanges are transitioned to the new platform. COTS and/or Software as a Service (SaaS) products may be incorporated in places. The Contractor must ensure success to account for smooth interactions between system pieces, required changes, and work with multiple SWAs and federal agency partners.

To accomplish the mission and vision for a future ICON system, CESER/NASWA proposes to use an encasement strategy (also known as the "strangler fig" pattern) with a goal to minimize risk to production systems while gradually migrating to a modernized, easier to maintain system that is more adaptive to UI program needs.

Using this strategy it is likely that encasement API(s) or an extraction layer will serve as a façade to hide the complexity of the existing data sources (and transform that extracted data into the updated data model), provide services in support of existing and future needs and allow for transition between separate functional implementations. This approach will provide CESER/NASWA the fluidity to replace implementation of different functionalities behind the API as needs and technology evolve over time. The API(s) can mitigate risks during functional transition by comparing results between the existing and new systems. The API(s) is key to a modular, and emergent architecture.

Under this strategy, delivery of the modernized system must include the following, which is in order of suggested operations:

- 1) Identify the business applications/exchanges that have the least dependency and overhead, and create a roadmap and project for how to update a selected set of these applications over time:
 - Review and obtain knowledge of documented mainframe-based COBOL software code and logic at a high level, understanding how the various components operate and interact including how and when the data is represented and modified to meet business process requirements. Understand the internal and external systems dependencies and responsibilities, how they interact, when, and why, and know the policy rules that govern the system and business applications/exchanges.
 - In collaboration with SWAs and federal agency partners and leveraging user experience research principles, deliver a roadmap to reengineer existing business processes to reduce redundancy, increase quality, timeliness, efficiency, and effectiveness of UI claims processing and enhance web services.
 - Deliver a risk assessment report to identify known and potential risks with business process reengineering that would impact SWAs and partner agencies, along with risk mitigation strategies.
 - Deliver a project plan for the first set of business applications/exchanges to be reengineered, including timeline. The timeline must include percentage of total project completion. The Project plan should also include architecture and design approaches with justification for the approach taken and must include possible strategies for migrating states using SNA\EE (LU6.2) communication protocols to SFTP, FTP, web services, Hypertext Transfer Protocol Secure (HTTP), Hypertext Transfer Protocol Secure (HTTPS).
- 2) Develop and implement the data exchange and business applications/exchanges specified by CESER/NASWA within the existing mainframe-based data sources (such as databases, file transfers, and web services calls), including containerized¹ endpoint connectors to be made available for SWAs to implement.
- 3) Provide technical documentation and installation guide for ICON hub and SWAs use, and ensure continued system operations of both reengineered and legacy code (by working collaboratively with the current vendor) until such time as all legacy processes are retired or the contract period ends,

¹ Containerization is the packaging of software code with just the operating system (OS) libraries and dependencies required to run the code to create a single lightweight executable—called a container—that runs consistently on any infrastructure.

- Ensure containerization of all developed model code to be shared with SWAs for their implementation.
 - Provide installation and technical operation guides, documentation, and run books; computing specifications; topology; endpoint connectors; and ongoing system statistical reports
 - Assist in the creation of user training.
- 4) Transition the functionalities from the mainframe-based legacy system to the new system when CESER/NASWA determines that the functionality meets the needs of SWA and federal agency partners. Both the legacy system and the newly developed system will run concurrently. The current vendor will be responsible for overall system operations for processes not yet developed by the Contractor. The Contractor will need to work collaboratively and cooperatively with the current vendor to ensure system availability requirements are met.
- Develop methods to maintain backward and forward compatibility and concurrent system operations with legacy applications during migration.
 - Develop and implement reengineered business applications/exchanges and communication protocols for implementation by states willing to engage in piloting new processes, ensuring that piloted processes are compatible and/or paralleled with legacy processes.
 - Provide comprehensive test plans, including internal, external, and comprehensive end-to-end testing that follow industry-standard best practices for software engineering and integration.

Additional projects may be awarded through either a new RFP or a contract extension. These additional projects may include the development and implementation of redesigned additional business applications/exchanges that do not fit into the initial time frame.

Future iterations can build on this foundation and repeat the process to migrate additional objectives to modernized business applications/exchanges. Eventually, this work will tie together multiple ICON processes. The timeline for the integration of the existing system and the modernized business applications/exchanges will be determined through the initial implementation in collaboration with CESER/NASWA and DOL.

2.3 Expectations

This software development project will use agile development principles, with robust

documentation, human-centered design, and an extensible infrastructure. The Contractor will need to work collaboratively and cooperatively with the current vendor to ensure system availability requirements for all functionality is met. Additionally, DOL and CESER/NASWA staff must be able to review the code bases upon request. CESER/NASWA expects that the development process will be collaborative and iterative, with open, regular, and frequent communication between CESER/NASWA and the Contractor. Throughout the period of performance, the Contractor should expect to work with various CESER/NASWA staff to carry out the objectives.

CESER/NASWA will provide a Product Owner and Technical Leads to lead this project on its behalf. The Product Owner and Technical Leads will work with DOL leadership and the IB Subcommittee to set the overall direction of the project, prioritize and drive decision-making, update a long-term product roadmap, consider and address the business needs of SWAs and federal agency partners, and support the other members of the development team. The Contractor will engage with CESER/NASWA and SWA stakeholders on the delivery-focused side of product management and team facilitation.

In addition to the Product Owner and Technical Leads, CESER/NASWA staff will be available as subject matter experts. This includes staff with UI expertise and historical system knowledge. CESER/NASWA will provide the Contractor with documentation and artifacts of the current vendor's technical and workflow process if required during the relevant discovery phase(s) implementing this strategy.

At the start of this project, the CESER/NASWA Product Owner and Technical Leads will work with the Contractor to enable delivery of the product vision and intended outcomes listed above in the following two areas:

1. Infrastructure and encasement with a specific focus on API development and system documentation.
2. Application development with a specific focus on user research, new feature development, and policy documentation.

The goal of this structure is to create focus within areas while still allowing complementary, collaborative work across the modernization effort. It should be noted that while initially different in focus, these two focus areas will overlap at points of implementation.

The Contractor will maintain all continuous software development encompassing optimizations and updates that are within scope; including but not limited to bug fixes, patches, repository management following industry best practices, etc. Any future requests or enhancements that are not within the initial scope may require an additional contract or contract extension for applicable work.

CESER/NASWA intends to deploy software as soon as it has been sufficiently developed

to provide the minimal viable functionality, as determined by CESER/NASWA. Please note that criteria for this determination is subject to change. CESER/NASWA expects that regular and frequent releases will follow the Minimum Viable Product (MVP) model. As new areas for developing additional functionality emerge, the team will continue to expand work products and releases iteratively and incrementally, with a sprint cycle that is mutually agreed upon. The software development and release process will be mutually agreed upon, with the goal of reaching a more mature DevSecOps practice.

2.5 Code Quality Assurance Surveillance Plan (QASP)

The following chart sets forth the performance standards and quality levels the code and documentation provided by the Contractor must meet, and the methods CESER/NASWA project team will use to assess the standard and quality levels of that code and documentation:

| Requirement Category | Performance Standard(s) | Acceptable Quality Level | Method of Assessment |
|-----------------------------|--|--|--|
| Tested Code | Code delivered under the order must have substantial test code coverage. Version-controlled GitHub repository of code that comprises product that will remain in the government domain. | Minimum of 90% test coverage of all code. All areas of code are meaningfully tested. | Combination of manual review and automated testing |

| | | | |
|----------------------|--|--|--|
| Properly Styled Code | For example, GSA 18F Front- End Guide | 0 linting errors and 0 warnings | Combination of manual review and automated testing |
| Accessible | Web Content Accessibility Guidelines 2.1 AA standards | 0 errors reported using an automated scanner and 0 errors reported in manual testing | |
| Deployed | Code must be successfully built and deployed into staging environment. | Successful build with a single command | Combination of manual review and automated testing |

| | | | |
|------------|---|---|--|
| Documented | <p>All dependencies are listed, and the licenses are documented.</p> <p>Major functionality in the software/source code is documented.</p> <p>Individual methods are documented inline in a format that permit the use of tools, for example, JSDoc.</p> <p>System diagram is provided.</p> | Combination of manual review and automated testing, if available | Manual review |
| Secure | <p>OWASP Application Security Verification Standard 3.0.1</p> | Code submitted must be free of medium- and high-level static and dynamic security vulnerabilities | Clean tests from a static testing SaaS (for example, Snyk or npm audit) and from, for example, OWASP ZAP, along with documentation explaining any false positives. |

3.0 Contract Place of Performance and Contract Type

3.1 Place of Performance and Contract Type

The Contractor must specify whether the fixed rate for each labor category applies to labor performed by (1) the Contractor; (2) subcontractors; and/or (3) divisions, subsidiaries, or affiliates of the Contractor under a common control. Upon award, all invoices must include actual, not estimated costs. CESER/NASWA will make one firm fixed contract award for all deliverables. Upon notification of intent to award, the parties will work collaboratively to finalize a contract.

The Contractor may choose the location(s) within the United States from which to perform the required software development services. Work cannot be performed outside of the United States. The Contractor must work with CESER/NASWA to create a successful distributed working environment. CESER/NASWA's core working hours are 8 AM ET to 5 PM ET, Monday through Friday.

3.2 Anticipated Period of Performance and Budget

The initial period of performance (POP) for the Contract is 24 months for development and implementation of business applications/exchanges. There may be optional contract extensions.

The POP will begin on the date of the Contract kickoff meeting.

For this project, CESER/NASWA anticipates the Contractor's team to have a combination of product, research, design, and engineering roles. However, Contractor may propose different team structures if it meets their technical and staffing plans.

CESER/NASWA intends to award a firm fixed price (FFP) contract. The Contractor must specify whether the fixed rate applies to labor performed by (1) the Contractor; (2) subcontractors; and/or (3) divisions, subsidiaries, or affiliates of the Contractor under a common control. Upon award, all invoices must include actual, not estimated costs.

4.0 Operating Constraints

4.1 Environment

The ICON Hub currently utilizes a mix of technologies, including but not limited to IBM mainframe, cloud offerings such as AWS GovCloud, open-source platforms, multiple protocols, etc. These technologies allow the ICON Hub flexibility to interface with infrastructures developed and maintained by SWAs and federal agency partners. The

ongoing progress of this project shall account for all current connection methods to SWAs and federal agency partners, while developing solutions to reduce/remove proprietary dependencies and lighten the technical overhead of the current environment.

CESER/NASWA will be responsible for obtaining any necessary compliance authorizations. DOL requires FedRAMP certification for cloud technology used for hosting the deployed product. Security controls are required and must follow [NIST Guidelines](#). The Contractor is required to use best practices for security and compliance in writing, testing, and delivering code. All code must be unit-tested to ensure compliance with NIST guidelines.

4.2 Personnel Skills and Knowledge

Key Personnel – The Contractor must designate both a Project Manager (PM) and a Technical Lead as Key Personnel for this project. The PM will be a direct liaison to the CESER/NASWA project team and will be responsible for the supervision and management of all the Contractor's personnel. The Technical Lead must have a full understanding of the technical approach to be used by the Contractor's development team and will be responsible for ensuring that the Contractor's development team follows that approach.

4.3 Special Clauses

Upon award of contract, the Contractor shall, during the term of the Contract and for a period of three (3) years following the termination or expiration of the Contract and any contract extensions, maintain accurate and complete financial records, including accounts, books, and other records related to charges, costs, disbursements, and expenses, in accordance with generally accepted accounting principles and practices, consistently applied that are applicable to a fixed price contract. Contractor will include a brief project narrative and timesheets with each invoice and each invoice must contain the information requested in Attachment 2 of this document. No invoice will be paid without confirmation and sign-off from CESER/NASWA Project Manager of deliverables received.

Data Rights and Ownership of Deliverables – CESER/NASWA intends that all software and documentation delivered by the Contractor will be owned by DOL and CESER/NASWA made available to SWAs and federal partner agencies under DOL and CESER/NASWA authorization. This software and documentation should include, but is not limited to, data, documents, graphics, code, plans, reports, schedules, schemas, metadata, architecture designs, etc.; all new open-source software created by the Contractor and forks or branches of current open-source software where the Contractor has made a modification; and all new tooling, scripting configuration

management, infrastructure as code, or any other final changes or edits to successfully deploy or operate the software.

To the extent that the Contractor seeks to incorporate any software that was not first produced in the performance of this task order in the software delivered under this task order, CESER/NASWA encourages the Contractor to incorporate either software that is in the public domain, or free and open-source software that qualifies under the open-source definition promulgated by the Open-source Initiative. In any event, the Contractor must promptly disclose to CESER/NASWA in writing, and list in the documentation, any software incorporated in the delivered software that is subject to a license.

If software delivered by the Contractor incorporates software that is subject to an open-source license that provides implementation guidance, then the Contractor must ensure compliance with that guidance. If software delivered by the Contractor incorporates software that is subject to an open-source license that does not provide implementation guidance, then the Contractor must attach or include the terms of the license within the work itself, such as in code comments at the beginning of a file, or in a license file within a software repository.

In addition, the Contractor must obtain written permission from CESER/NASWA before incorporating into the delivered software any software that is subject to a license that does not qualify under the open-source Definition promulgated by the Open-source Initiative. If CESER/NASWA grants such written permission, then the Contractor's rights to use that software must be promptly assigned to DOL and CESER/NASWA.

5.0 Instructions and Evaluation

5.1 Submission Instructions

Participation in this RFP process is voluntary. All costs incurred in responding to, or in participating in this RFP, will be the responsibility of the vendors, or other third-party organizations participating in the RFP, and not that of CESER/NASWA.

Responses to this RFP shall be in narrative form and provide details on vendor product capabilities. Responses must be viewable with Microsoft Word or Adobe Acrobat and printable on 8.5" x 11" paper, must use 12-point font, the margins of each page should be at least ½ inch, and each page should contain a page number in the footer.

Responses must be received electronically by 5:00 p.m. Eastern Daylight Time on 01/07/2022. Responses will be sent to the email address of the sender along with any additional email addresses included in the submittal.

Please ensure that the submittal is in Microsoft Word or PDF format. All responses must be submitted electronically to the following email address: ICON@naswa.org.

Telephone calls regarding this RFP will not be accepted.

Timeline

The anticipated RFP timeline of events is shown below:

| Project Activity | Timeline |
|---|-----------------------------------|
| ICON Modernization RFP Release | 11/29/2021 |
| Pre-Bid Conference | 12/13/2021 |
| Final Clarification Questions | 12/17/2021 |
| Questions and Responses Posted | 12/30/2021 |
| Proposals Due | 01/07/2022 |
| Offeror Presentations* | Between 01/17/2022 and 01/28/2022 |
| Best and Final Offer Pricing (optional) | Between 01/31/2022 and 02/11/2022 |
| Award (anticipated) | Mid-February, 2022 |

* Contractor technical presentations may be conducted with selected bidders that are determined to be within the competitive range for awards and may not include all bidders. Presentations may be conducted on-site at NASWA in Washington, DC or virtually. Travel and associated costs are the responsibility of the Contractor.

CESER/NASWA reserves the right to invite Contractors to participate in detailed discussions, clarifications to responses, and presentations/demonstrations after the proposal due date.

5.2 Instructions for Proposals

Company Overview

Provide a brief description of your company, services, business size (revenue, employees, customers), and points of contact, including name, address, phone numbers, and email addresses. *Limit response to 3 pages.*

Project Summary Citations

Include up to three (3) project summary citations that outline your organization's experience in providing strategic and/or technical support for projects of similar

content, size, and scope, including experience with unemployment insurance. For each project summary citation, please include the following: project summary, project size/scope, project budget, agency/organization, and agency/organization point of contact. *Limit response to 3 pages for each citation, up to 3 citations.*

Key Personnel Resumes

Please provide a minimum of two (2) resumes (two pages maximum per resume) for key personnel to be assigned to the project. Resumes should include name, percentage of time that will be allocated to the ICON project, and relevant work experience.

Technical Submissions

Technical submissions must consist of a technical proposal of no more than twenty (20) pages, a staffing plan of no more than five (5) pages, plus resumes and signed letters of intent to participate, and references to one or more source code samples, preferably open source. Technical submissions may also include user research plans and design artifacts of no more than 50 pages combined. Technical proposals and staffing plans must be submitted using 12-point type.

The technical proposal must set forth the Contractor's proposed approach to providing the services required, including infrastructure for the development environment, the base software (if any) and programming language(s) the Contractor proposes to use. The technical proposal must also make clear that the Contractor understands the details of the project requirements. The technical proposal must also identify potential obstacles to efficient development and include plans to overcome those potential obstacles. The technical proposal must also include a description of the Contractor's plans, if any, to provide services through a joint venture, teaming partner, or subcontractors.

The staffing plan must set forth the Contractor's proposed approach to staffing the requirements of this project, including the titles of each of the labor categories proposed and proposed level of effort for each member of the Contractor's development team. The staffing plan must also identify the proposed Project Manager and proposed Technical Lead by name and include a resume for each. Those resumes must include a brief description of the experience and capability for each individual but cannot exceed two (2) pages in length each. The staffing plan must also set forth the extent to which the proposed team for this project was involved in the development of the source code referred to in the next paragraph.

The staffing plan must set forth and explain the extent to which the Contractor will provide individuals with experience in at least each of the following areas:

- Agile development practices

- Automated (unit/integration/end-to-end) testing
- Continuous Integration and Continuous Deployment
- Refactoring to minimize technical debt
- Application Protocol Interface (API) development and documentation
- Open-source software development
- Cloud deployment
- Open-source login/authentication services
- Product management and strategy
- Usability research, such as (but not limited to) contextual inquiry, stakeholder interviews, and usability testing
- User experience design
- Sketching, wireframing, and/or prototyping, and user-task flow development
- Visual design
- Content design and copywriting
- Building and testing public facing sites and tools

The references to one or more source code samples must be either links to Git repositories (either credentialed or public) or to equivalent version-controlled repositories that provide CESER/NASWA with the full revision history for all files. If a Contractor submits a link to a private Git repository, CESER/NASWA will provide the Contractor with one or more user identities by email, and the Contractor will be expected to promptly provide the identified user(s) with access to the private Git repository.

The source code samples should be for projects that are similar in size, scope, and complexity to the project contemplated here. The source code must have been developed by either (i) the Contractor itself, (ii) a teaming partner that is proposed in response to this RFP, or (iii) an individual that is being proposed as Key Personnel for this project. CESER/NASWA would prefer that the source code samples have been for recent projects of a similar size and scope.

If the references to source code samples provided do not include associated references to user research plans and design artifacts demonstrating how ongoing user research was incorporated into the project, then the Contractor must submit a user research plan and design artifacts relating to at least one (1) of the source code samples provided.

Price Submissions

Price submissions must set forth a single dollar amount that represents the Contractor's estimate of the total cost to CESER/NASWA for the development services and travel expenses required for the period of performance – 24 months for development and

implementation of business applications/exchanges with the possibility of optional contract extensions.

Pre-Bid Questions and Answers

A pre-bid teleconference will be held prior to the RFP submission deadline. In this one-hour session, CESER/NASWA will collect Contractor questions. Contractors wishing to submit an RFP may also submit questions to ICON@naswa.org. Responses/Answers from both the pre-bid conference and questions received by email will be posted to the RFP website (http://itsc.org/Pages/RFP_Home.aspx) within 1 to 2 weeks prior to the submission deadline.

Contractor Presentations

The Contractors with the most highly rated written submissions will each be invited to present a technical demonstration as part of the evaluation process. Each session will be conducted remotely via video connection and/or teleconference. CESER/NASWA will communicate with certain Contractors to schedule the dates and times of interviews.

Each session may also include an unstructured question and answer session, during which Contractors will be asked questions about the technical aspects of their proposal and their approach to software development. CESER/NASWA expects these presentation sessions will assist with assessment of the technical abilities of the proposed development team and to better understand the proposed technical approach described in the Contractor's written submission. Both of the Contractor's proposed Key Personnel must participate in the interview.

The presentation session will last no more than one hour, during which the Contractor will respond to NASWA/CESER ICON's questions related to the technical aspects of the Contractor's proposal. There will be no follow-up session for further questions after this presentation session.

Statements made during an interview will not become part of the agreement.

Basis of Award and Evaluation Factors

Each submission received by CESER/NASWA will be evaluated for technical acceptability. Submissions that are determined to not be technically acceptable after the Contractor has been given the opportunity for a clarification will not be evaluated further.

Quotes must be realistic with respect to technical approach, staffing approach, and total price. Quotes that indicate a lack of understanding of the project requirements may not be considered for award. Quotes may indicate a lack of understanding of the project requirements if the staffing plan does not use a realistic mix of labor categories and hours, or if any proposed hourly labor rates are unrealistically high or low.

The CESER/NASWA project team will evaluate all proposals using the following evaluation criteria and award base contracts to the Contractor that represents the best value for CESER.

| Criteria | Weight |
|--|---------------|
| Relevant Unemployment Insurance Experience | 25% |
| Technical/Management Approach | 45% |
| Key Personnel | 10% |
| Pricing | 20% |

Similar Experience

In evaluating a Contractor's similar experience, the CESER/NASWA will consider the extent to which the Contractor has recently provided software development services for projects that are similar in size, scope, and complexity to the project described in this RFP, and the quality of those services. In evaluating the quality of those services, CESER/NASWA will consider, among other things, the revision history for all files in the source code samples provided. CESER/NASWA will also consider the user research and design-related artifacts that were associated with the source code samples provided or submitted separately. In considering a Contractor's similar experience, CESER/NASWA may also consider information from any other source, including Contractor's prior customers and public websites.

Technical Approach

In evaluating a Contractor's technical approach, CESER/NASWA will consider (a) the quality of the Contractor's plans to provide the open-source, agile development services required, including user research and design, (b) the extent of the Contractor's understanding of the details of the project requirements, and (c) the extent to which the Contractor has identified potential obstacles to efficient development, and has proposed realistic approaches to overcome those potential obstacles.

Key Personnel Approach

In evaluating a Contractor's staffing approach, CESER/NASWA will consider (a) the skills and experience of the Key Personnel and other individuals that the Contractor plans to

use to provide the required services, and (b) the mix of labor categories that will comprise the Contractor's proposed development team.

Price Evaluation

In evaluating a Contractor's price, CESER/NASWA will consider the total of the Contractor's estimated costs for the development services, and travel expenses proposed, for 24 months. Provide an itemized breakdown of the deliverables mentioned within document.

ATTACHMENT 1: Glossary of Acronyms

| | |
|-----------------|--|
| .NET | Developer platform made up of tools, programming languages, and libraries |
| API | Application Programming Interface |
| ASCII | American Standard Code for Information Interchange |
| AWS | Amazon Web Services |
| CESER | Center for Employment Security Education and Research |
| COBOL | Common Business Oriented Language |
| COTS | Commercial off the Shelf |
| DevSecOps | Development, Security and Operations |
| DOL | United States Department of Labor |
| EE | Enterprise Extender |
| FedRAMP | Federal Risk and Authorization Management Program |
| FFP | Firm Fixed Price |
| FTPS | File Transfer Protocol TLS |
| Git | Software for tracking changes in any set of files during software development |
| HTTPS | Hypertext Transfer Protocol Secure |
| IB | Interstate Benefits |
| IBM | International Business Machines Corporation |
| IBPP | Interstate Benefit Payment Plan |
| IB Subcommittee | A subcommittee for Interstate Benefits under NASWA's Unemployment Insurance (UI) Committee |
| IP | Internet Protocol |
| Java | Open-source programming language |
| JSDOC | API documentation generator for JavaScript |
| LU6.2 | Logical Unit 6.2 |
| MVP | Minimum Viable Product |
| NASWA | National Association of State Workforce Agencies |
| NIST | National Institute of Standards and Technology |
| NPM | package manager for JavaScript applications |
| OWASP | Open Web Application Security Project |
| POP | Period of Performance |
| RFP | Request for Proposal |
| QASP | Quality Assurance Surveillance Plan |
| SaaS | Software as a Service |
| SFTP | Secure File Transfer Protocol |
| SNA | Systems Network Architecture |
| Snyk | A developer security platform. |
| SOAP | Simple Object Access Protocol |
| SWA | State Workforce Agency |

| | |
|-----|-------------------------------|
| TBD | To Be Determined |
| TCP | Transmission Control Protocol |
| UAT | User Acceptance Testing |
| UI | Unemployment Insurance |
| XML | Extensible Markup Language |

ATTACHMENT 2: Sample Invoice

EXAMPLE INVOICE

COMPANY XYZ
ADDRESS
PHONE NUMBER

Date: Month, Day, Year

CESER
444 N. Capitol St. NW, Suite 300
Washington DC, 20001
accounting@naswa.org

Invoice: #####
Contract: **CONTRACT123**
Period of Performance:

| | Period Costs | Total Cumulative Costs | Percent of Funds Used |
|------------------------|--------------|------------------------|-----------------------|
| Billing Period: | \$X,XXX.XX | \$XX,XXX.XX | XX% |

Amount Dues this Invoice: \$XX,XXX.XX

Note: Contractor will include a brief project narrative and timesheets with each invoice and each invoice must contain the information requested above. No invoice will be paid without confirmation and sign-off from NASWA ICON Project Manager of deliverables received.

EXAMPLE NARRATIVE REPORT

From: **COMPANY1**
ADDRESS1
CITY, STATE ZIP
EMAILCON

To: ICON PROJECT MANAGER
CESER/NASWA
444 N. Capitol St., NW, Suite 300
Washington, DC 20001
ICON@naswa.org

Project **INSERT PROJECT NAME**

Contract Number: **CONTRACT123**

Report Period: **DATE TO DATE**

Date Submitted: **INSERT DATE**

Contract Accomplishments:

XXXXXXXX

Items delivered/tasks performed during this period include:

- Deliverable I
- Deliverable II
- Deliverable III

Unfinished Tasks:

XXXXX

Schedule Revisions:

None.

Group Problems:

None.

Submission:

Report sent to:

Via email: **INSERT PROJECT MANAGER AND/OR PROJECT DIRECTOR EMAIL**
INSERT FISCAL DIRECTOR EMAIL