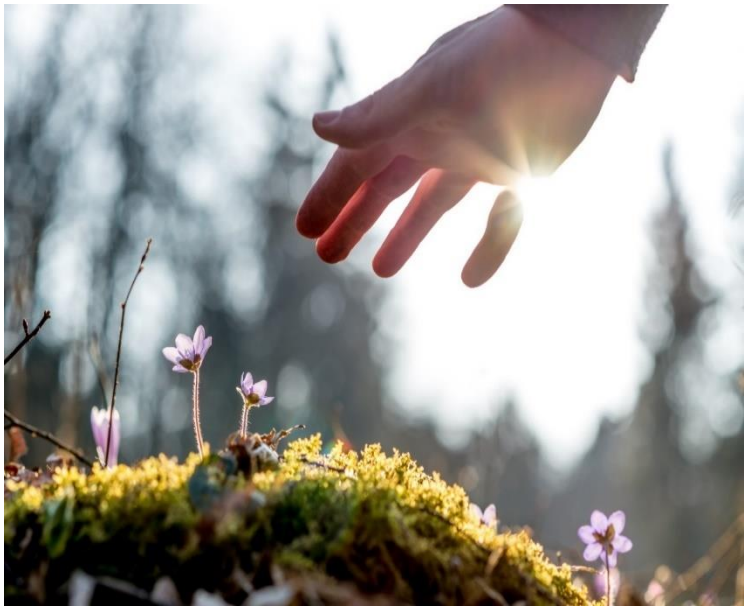

Proposal to the Office of Systems Integration (OSI)

Request for Information (RFI) #75001

For Agile Development Pre-Qualified (ADPQ) Vendor Pool

Scrum Team Organization

June 3, 2016

Strategy! Innovation! Transformation!

Revision History

Version	Date	Description of Updates	Author
DRAFT	05/19/2016	DRAFT version created	xFusion
1.0	06/03/2016	Created the Initial Version	xFusion

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1 Introduction

As a part of the Agile and Scrum development process, xFusion goes through multiple sprints for the system development process. The sprints are managed by the sprint team that had various responsibilities aligned with the SDLC process. We also follow the U.S. Digital Services Playbook to ensure a user centric application with a human user as the central focus.

2 Micro-service Based Approach for Scrum Team Organization

In order for the team to be able to work independently and parallelly work on multiple features, we took a Micro-service based approach for team organization as shown in Figure 2-1. This ensures a modular approach for design, development and testing of application features independently in an iterative and incremental way.

The application features are analyzed and divided into the following Micro-services:

1. Sign-In – User Login
2. Person Profile Service – Creating and Updating Parent and Child(ren) profile
3. Message Service – Biological parents communicate to the Case Worker and the Foster Parents through private mailbox
4. Facility Search – Search nearby Foster Care Facilities by zip code

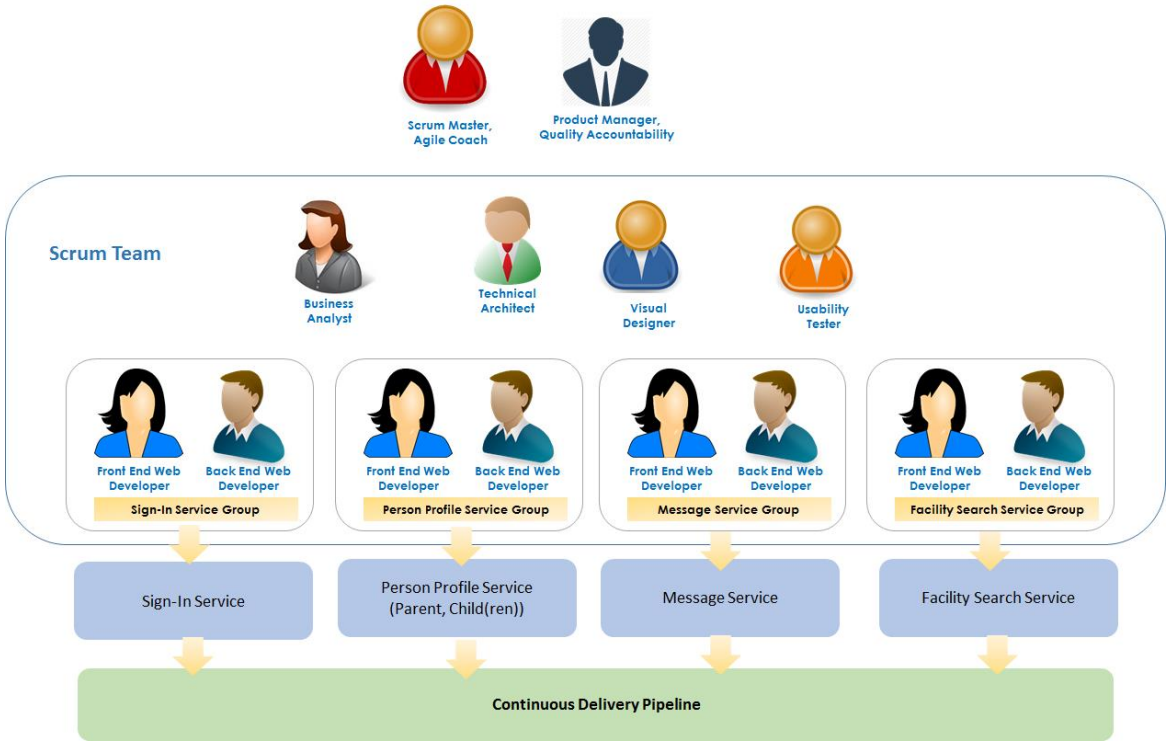

Figure 2-1: Micro-service based organization of the Scrum Team

As shown in Figure 2-1, four (4) groups were formed to develop the front end and the back end of the services. Each group had expertise to perform the role of the Front End and Back End Web Development. Each team is responsible for one service.Each service was developed and tested independently. Ultimately, all the services were integrated with the front end application.

Other Scrum Team Roles, such as Business Analyst, Technical Architect, Visual Designer and Usability Tester, are global to the individual service teams.We designated a Scrum Master for the Scrum Team. The Scrum Master also played the role of Agile Coach.The Product Manager was responsible for defining the product features and their priorities, sprint and release planning.The Product Manager is the single person who is Accountable for the Quality of the Product.

3 Scrum Team Matrix

The Scrum Team Matrix describes the xFusion sprint team that was responsible for the development of the SafeKids application. The Scrum Team Role, description, and mapping to Labor Category are described in Table 3-1.

Table 3-1 Scrum Team Role, Description, and Mapping to Labor Category

ID	Project Role - Agile/Scrum Role	Labor Category	Roles and Responsibilities
1	Product Owner	Product Quality Accountability	Assigned as the leader and has authority, responsibility and is accountable for the quality of the product submitted
1	Product Owner	Product Manager	1. Lead one or more multi-disciplinary agile delivery teams to deliver excellent new products and/or iterations to existing products to meet user needs 2.Gather user requirements based on an understanding of diverse audience groups 3.Define and obtain stakeholder buy-in for product definition and delivery approach 4.Create effective, prioritized product descriptions, and delivery plans to meet user needs in a costeffective way
2	Scrum Master	Delivery Manager	1. Deliver projects and products using the appropriate agile project management methodology, learning & iterating frequently 2.Work with the Product Manager to define the roadmap for any given product and translate this into user stories 3.Lead the collaborative, dynamic planning process -- prioritizing the work that needs to be done against the capacity and capability of the team 4.Matrix-managing a multi-disciplinary team 5.Ensure all products are built to an appropriate level of quality for the stage (alpha/beta/production) 6.Actively and openly share knowledge of best practices
2	Scrum Master	Agile Coach	
3	Scrum Team Member	Writer/Content Designer/Content Strategist	1.Improves content creation efforts by helping to lead the research & development of interactive and experiential storytelling for projects 2.Advise how to improve the ongoing iteration of content models 3.Collaborate with designers and other content strategists to improve how the effectiveness of digital, print, and other content is measured 4.Develop and maintain appropriate voice for produced content 5.Advise how to streamline content production and management solutions and processes, based on user research 6.Assign, edit, and produce content for products, services, and various projects Plan and facilitate content strategy workshops and

			brainstorming sessions on developing content and content services (including API development) 7.Collaborate closely with developers and designers to create, test, and deploy effective content marketing experiences using the Agile method of software development 8.Offer educated recommendations on how to deliver a consistent, sustainable and standardsdriven execution of content strategy across products, services, and projects 9.Collaborate with content managers, writers, information architects, interaction designers, developers, and content creators of all types 10.Participate, as needed, on an Agile software development scrum teams
4	Scrum Team Member	Technical Architect	1. Transforming the Business Requirements (User Stories) to Technical Design 2. Logical and Physical Architecture Definition using Microservice based Architecture 3. Technology Section for various tiers in the N-Tier Architecture 4. Microservices Specification and Design 5. Technical Review and approval of implementation artifacts
5	Scrum Team Member	Visual Designer	1.Oversees all visual design efforts 2.Guides, mentors, and coaches team members while leading projects to successful completion Develops and maintains relationships with key peers in Marketing, 3.Branding, UX leaders, IT leaders, and others to identify and plan creative solutions 4.Develops, maintains, and ensures compliance of application release management, outage management and change control processes and standards 5.Defines, creates, communicates, and manages resource plans and other required project documentation such as style guides and provides updates as necessary
6	Scrum Team Member	Interaction Designer/User Researcher/Usability Tester	1.Conduct stakeholder interviews, user requirements analysis, task analysis, conceptual modeling, information architecture, interaction design, and usability testing 2.Design and specify user interfaces and information architecture 3.Lead participatory and iterative design activities, including observational studies, customer interviews, usability testing, and other forms of requirements discovery 4. Produce user requirements specifications & experience goals, personas, storyboards, scenarios, flowcharts, design prototypes, and design specifications 5. Effectively communicate research findings, conceptual ideas, detailed design, and design rationale and goals both verbally and visually 6. Plan and facilitate collaborative critiques and analysis

			& synthesis working sessions 7. Work closely with visual designers and development teams to ensure that customer goals are met and design specifications are delivered upon 8. Designs and develops primarily internet/web pages and applications 9. Develops proof-of-concepts and prototypes of easy-to-navigate user interfaces (UIs) that consists of web pages with graphics, icons, and color schemes that are visually appealing
7	Scrum Team Member	Business Analyst	1. Develop User Stories and define Acceptance Criteria 2. Develop Teat Approach and Test Cases
8	Scrum Team Member	Front End Web Developer – Sign-In Service	1. Create web pages based on given design using AngularJS (for single page web application) 2. Conduct form validations on all web forms 3. Make REST API calls to micro services on required events 4. Create JSON objects to submit the form data to API (script development) 5. Automated Unit testing 6. Unit testing
9	Scrum Team Member	Backend Web Developer – Sign-In Service	1. Create controllers for REST API 2. Create entities for tables related to person, user and data layer to get data from database 3. Write business logic to process data as per the request 4. Manage session and use token (User login and registration) 5. Automated Unit testing 6. Unit testing
10	Scrum Team Member	Front End Web Developer - Profile Management Service	1. Create web pages based on given design using AngularJS (for single page web application) 2. Conduct form validations on all web forms 3. Make REST API calls to micro services on required events 4. Create JSON objects to submit the form data to API (script development) 5. Image upload for profile photos and displaying them 6. Automated Unit testing 7. Unit testing
11	Scrum Team Member	Backend Web Developer - Profile Service	1. Create controllers for REST API 2. Createentities for tables related to person and his profile and data layer to get data from database 3. Write business logic to process data as per the request (saving parent, updating parent, uploading profile picture of parent) 4. Integrate CAPTCHA and validation code for registration 5. Create entities for tables related to child profile and data layer to get data from database 6. Write business logic to process data as per the

			request (saving child, updating child, getting list of children, uploading docs and pictures of child) 7. Token verification 8. Develop Email and SMS Services 9. Token verification 10. Automated Unit testing 11. Unit testing
12	Scrum Team Member	Front End Web Developer - Facility Search Service	1. Createweb pages based on given design using AngularJS (for single page web application) 2. Integrate Angular JS Google Maps in application 3. Integrate API for facilities information in web application 4. Showe facilities as markers on Google map 5. Automated Unit testing 6. Unit testing
13	Scrum Team Member	Backend Web Developer - Facility Search Service	1. Create controllers for REST API 2. Create entities for tables related to messages and data layer to get data from database 3. Integrate Google API and the CCLS Facility Search API 4. Token verification 5. Automated Unit testing 6. Unit testing
14	Scrum Team Member	Front End Web Developer - Message Service	1. Create web pages based on given design using AngularJS (for single page web application) 2. Conduct form validations on new message form 3. Make REST API calls to send message, get list of messages and delete message 4. Create JSON objects to submit the form data to API (script development) 5. Automated Unit testing 6. Unit testing
15	Scrum Team Member	Backend Web Developer - Message Service	1. Createcontrollers for REST API 2. Createentities for tables related to messages and data layer to get data from database 3. Write business logic to process data as per the request (new message, getting list of all messages, deleting message) 4. Token verification 5. Automated Unit testing 6. Unit testing

4 Playbook Scrum Team Roles

As described above, xFusion Scrum team uses the U.S. Digital Services Playbook to ensure a user centric, robust application that focuses on a human user. Below is the playbook mapping to how we incorporated those plays in to the overall development of the SafeKids application, the documents associated with each play, and the labor categories with the primary responsibility of the development of the artifacts.

Play Title	Function	Labor Categories
Play 1 Understand what people need	Understand what people need, by including people in the prototype development and design process	Category 1 - Product Manager Category 12 - Business Analyst Category 5 - Visual Designer
Play 2 Address the whole experience, from start to finish		Category 3 - Interaction Designer / User Researcher / Usability Tester Category 12 - Business Analyst
Play3 Make it simple and intuitive	Used at least three "human-centered design" techniques or tools	Category 3 - Interaction Designer/User Researcher/Usability Tester
Play 4 Build the service using agile and iterative practices	Used an iterative approach, where feedback informed subsequent work or versions of the prototype	Category 11 - Agile Coach
Play 5 Structure budgets and contracts to support delivery		Category 1 - Product Manager
Play 6 Assign one leader and that person accountable	Assigned one leader, gave that person authority and responsibility, and held that person accountable for the quality of the prototype submitted	Category 1 - Product Manager
Play 7 Bring in experienced teams	Assembled a multidisciplinary and collaborative team including a minimum of 5 labor categories from the Development Pool labor categories to design and develop the prototype	Category 1 - Product Manager
Play 8 Choose a modern technology stack	Used at least five modern and open source technologies, regardless of architectural layer (frontend, backend, etc.)	Category 2 - Technical Architect

Play 9 Deploy in a flexible hosting environment	Deployed the prototype on an Infrastructure as a Service (IaaS) or Platform as a Service (PaaS) provider, and indicated which provider they used	Category 7 - Backend Web Developer
Play 10 Automate testing and deployments	Deploy their software in a container (i.e., utilized operating-system-level virtualization)	Category 7 - Backend Web Developer
Play 11 Manage security and privacy through reusable processes	Set up or used continuous monitoring	Category 8 - DevOps Engineer Category 10 - Delivery Manager
Play 12 Use data to drive decisions		Category 1 - Product Manager Category 11 - Agile Coach Category 12 - Business Analyst Category 8 - DevOps Engineer
Play 13 Default to open	Prototype and underlying platforms used to create and run the prototype are openly licensed and free of charge	Category 2 - Technical Architect
Play 1 Understand what people need	Created or used a design style guide and/or a pattern library	Category 12 - Business Analyst
Play 4 Build the service using agile and iterative practices	Performed usability tests with people	Category 3 - Interaction Designer / User Researcher / Usability Tester
Play 4 Build the service using agile and iterative practices	Created a prototype that works on multiple devices, and presents a responsive design	Category 3 - Interaction Designer / User Researcher / Usability Tester Category 4 - Writer / Content Designer / Content Strategist
Play 4 Build the service using agile and iterative practices	Wrote unit tests for their code	Category 6 - Frontend Web Developer Category 7 - Backend Web Developer
Play 8 Choose a modern technology stack	Set up or used configuration management	Category 8 - DevOps Engineer
Play 13 Default to open	Provided sufficient documentation to install and run their prototype on another machine	Category 6 - Frontend Web Developer Category 7 - Backend Web Developer