

## SRFP PROPOSAL FORM – APPENDIX A

SRFP TITLE: **Automation Specialist**

SRFP No. **13369**

Closing Time: **May 10, 2021** at 5:00 p.m. PST

**Issued by the Platform Services on April 26, 2021**

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### REQUIREMENTS:

- Complete this form, providing the information requested in accordance with the requirements in the SRFP. Do not include attachments and/or URLs unless specifically requested in this SRFP.
- Proponents may find the [Proponents' Guide: How to Respond to the Short-form Request for Proposals \("SRFP"\)](#) helpful.
- Completed proposals (Appendix A) should not be more than 10 pages in overall length using no less than a 10pt. font; the Province will not evaluate any pages that exceed this maximum page count.

### 1. Executive Summary

Provide an Executive Summary of the key points of this proposal.

Established in 2011 and headquartered in San Antonio, TX, **Appddiction Studio LLC (Appddiction)** is a trusted Agile and Development, Security, and Operations (DevSecOps) small business delivering transformative software (SW) development, cloud services, and Agile/DevSecOps training. We have successfully transformed software engineering practices within our Department of Defense (DoD) portfolio by utilizing our GovCloud pipeline to perform over thirty (30) production releases, a major departure from the historic 1 or 2 releases annually.

We successfully transitioned the Department of Defense (DoD) components such as the USAF Business and Enterprise Systems (BES) Directorate, Air Force Life Cycle Management Center (AFLCMC) from Waterfall to Agile delivery by **integrating Agile methodologies and DevSecOps processes**. Our Advanced Kubernetes (K8s) Subject Matter Experts (SME), to include our proposed Automation Specialist, Mr. Kevin Summersill, are certified on the majority of DevSecOps tools and currently support Department of Defense software development and software factory efforts at Kessel Run, Platform One, and the Army Software Factory.

Collaboration, communication, accessibility, and innovation are core to our team's capabilities. For **over ten (10) years**, we have supported Federal, State, Commercial, and Canadian customers with their **Agile and DevSecOps transformations**. We have also provided software development, product management, user centered research and design, sustainment, and **DevSecOps implementations both on-premises and in cloud environments (Amazon Web Services [AWS], Microsoft [MS] Azure)**. Our customers include **Manitoba Public Insurance (MPI)**, the United States (U.S.) Department of Agriculture (USDA), U.S. Department of the Air Force (USAF), U.S. Department of Veterans Affairs (VA), U.S. Army, Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA), and Federal Aviation Administration (FAA).

We are committed to working closely with the Province of British Columbia's (the Province) in providing Mr. Summersill, our experienced Automation Specialist to support the Province's goal to "enable the BC Government to deliver modern digital services to Citizens by developing and implementing a new 'Cloud Native' security model for technology applications" by "create additional security layers that enable a Development Security Operations (DevSecOps) approach for development teams."

## 2. Mandatory Requirements

- Degree or diploma in software engineering or equivalent experience
- Minimum two years of experience with advanced automation techniques
- Must have strong knowledge of ArgoCD, Ansible, Jenkins and GitHub Actions
- Knowledge of Selenium, Terraform, JUnit, GoLang, Python, Perl, Javascript will be considered an asset
- Must be able to co-locate with the project team at their office in downtown Victoria, BC
- Must be legally entitled to work in Canada.

Explain how your proposal meets all of the mandatory requirements.

Our proposed Automation Specialist, Mr. Kevin Summersill, meets and exceeds all the mandatory requirements for this procurement solicitation. Mr. Summersill is an Air Force (AF) Veteran **with over twenty (20) years in the Information Technology (IT) industry**, including programming, quality assurance, software management, networking, cloud computing, graphic design, and software documentation, and technical leadership. He has **enterprise-level DevSecOps development and workflow monitoring experience using Jenkins, Concourse, GitLab, and similar tools**. He has extensive expertise in troubleshooting and correcting issues with **continuous integration and continuous delivery (CI/CD) pipeline health** for Service Level Agreements (SLA) compliance. He has **advanced expertise in providing Agile/DevSecOps implementation design, development, and sustainment support** on various Government and commercial contracts.

Mr. Summersill has experience with **Cloud/Kubernetes container and service mesh integration tools and techniques**. He has developed and managed CI/CD pipelines using Jenkins, Concourse, and GitLab. He has development/systems experience developing, testing, and maintaining **containerized applications** and hardening containers in compliance **with customers' standards, policies, and guidelines** using tools such as **Nexus, SonarQube, Fortify, and ThreadFix**. He has advanced experience developing and maintaining **automation tooling** to deploy and manage applications. He is well versed in **Agile methodologies** including experience with source/version control and build/release tools, workflows, and methodologies using tools such as **Docker, Kubernetes, VMware Tanzu, and RedHat OpenShift**.

**Proposed Proponent Name:** Kevin Summersill, CKA, CTA, CSM, CSPO, SPC, CSDP, CSASE, CAL-O, CAL-E, CAL-T, ICP-ACC

**Proposed Role:** Automation Specialist

**Security Clearance:** Active Secret Clearance (\$22 )

### **Technical Skills**

- **IaC:** Terraform, CloudFormation, Azure Resource Manager (ARM)
- **CaC:** Ansible, Chef, Puppet, and Salt Stack

- **GitOps:** GitHub (utilizing actions), GitLab, CI-Circle, and Bitbucket
- **Build Servers:** Jenkins (Groovy Language), Drone, Travis
- **Cloud Native CI/CD:** Tekton, Argo CD
- **Cloud Native Dev Tools:** Skaffold
- **Container Runtimes:** containerd, cri-o, docker-engine
- **Container Dev Tools:** Buildah, Docker, Kanako, JLib
- **Cloud Native M/L:** Kubeflow
- **IoT:** PlatformIO (IDE), Arduino (IDE), AWS IoT Core, AWS IoT Analytics, Azure IoT Hub, MQTT
- (transmissions)
- **CSP:** AWS (includes Gov), GCP (includes Gov), Oracle (includes Gov), and Azure (includes Gov)
- **Backend Languages:** Python 3.x, Golang, NodeJS, Ruby, Java
- **Front-end Frameworks:** Angular, React, Vue.js, Preact, Ember – (includes Typescript, JavaScript, Java, Python, and PHP)
- **Cloud Native Monitoring:** Elastic Search, Grafana, Prometheus, Alert manager, Cloud Watch, Azure Log Analytics, Cloud Alarm, Azure Action Groups, Alexa, node\_exporters, Black Box, Splunk, and Papertrail
- **Container Ecosystems:** OpenShift, Mesos, Kubernetes Native, ECS, EKS, GKE, AKS
- **Artifact Repositories:** Nexus, JFrog Artifactory
- **Security:** Checkmarx, Fortify, Trivy, OpenSCAP, SCAP, Open Policy Agent, TerraScan, Snyk, and Clair

### **Employment History**

#### **Solution Architect/Sr. Scrum Master, Appdiction Studio LLC, Remote, 2018-Present**

- Serve as a DoD Agile Subject Matter Expert (SME) and DevSecOps SME by providing Agile/DevSecOps implementation design, development, sustainment support and security measurements implementation
- Provide DevSecOps transformations to DoD organization utilize the best practices within Kubernetes and Docker container runtimes
- Orchestrate several Infrastructure as Code (IaC) Terraform CI/CDs to support Azure Kubernetes Services (AKS), AWS, GCP, VMWare, OpenShift, and Linode ecosystems
- Orchestrate construction of DevOps models for simultaneous testing, building, and deployment as the DevOps and CI/CD Lead
- Utilize Azure DevOps to set up CI/CDs with Ansible for Configuration as Code (CaC)
- Utilize AWS and Azure Kubernetes Services to set-up CI/CD pipelines
- Troubleshoot and correct issues with the CI/CD pipeline to maintain Service Level Agreement (SLA) compliance
- Troubleshoot and correct CI/CD, Azure DevOps, and GitHub issues, and monitor and manage workflow using GitLab, Concourse, and Jenkins
- Assess the architecture of customers' Agile models to provide strategic guidance and implementation support throughout their enterprise transformation
- Establish and satisfy information assurance and security requirements based upon the analysis of user, policy, regulatory, and resource demands
- Perform analysis, design, and development of security features for system architectures
- Set up multiple pipelines within DoD DI2E Suite of tools to create custom CI/CD pipelines meeting organizations governance and compliance requirements
- Lead the container hardening team to provide DISA DoD STIG compliant images into Impact Level 2, 5, and 6 environments

- Orchestrated multiple On Prem to Kubernetes ecosystems within AWS and Azure for DoD, Private Sector, and government agencies
- Team Lead for a DoD Hybrid Mobile Application to support EODIMS Level 1 data feeder systems
- Set up SOPs, CMDBs, Living Artifacts, Binary Control and Least Privilege accessibility as Configuration Manager for DoD and VA customers

**Senior Functional Analyst - EODIMS/ACES-FD/EE2**, IndraSoft, Inc., Montgomery, AL 2014-2018

- Provided Agile/DevOps implementation design, development, sustainment support and security measurements implementation
- Led Sr. Functional Analyst - Explosive Ordnance Disposal Information Management System (EODIMS)
- Set-up CI/CD pipelines using Amazon Web Services
- Provided DevOps implementation design and development
- Served as the Software Quality Control (HQ Quality Center) and Business Analyst

**Functional Analyst/Business Analyst**, General Dynamics Information Technology (GDIT), Montgomery, AL, 2010-2018

- Managed risks and dependencies and escalated and tracked impediments
- Provided input on resourcing to address critical bottlenecks. Encouraged collaboration between teams and System and Solution Architects/Engineering

*For Explosive Ordnance Disposal Information Management System (EODIMS)*

- Managed Explosive Ordnance Disposal Information Management System (EODIMS) as the functional analyst and provided daily SQL data trends analysis
- Provided Subject Matter Expert (SME) EOD information to join EOD operations with technology experts

*For Fire Department – Emergency Management and Dispatch Application*

- Provided support for over 50,000 fire department personnel on application use
- Developed online training for mass productivity along with training documentation (user guides)
- Provided classroom training seminars on-site for multiple Air Force Fire departments

*For Civil Engineering Training and Personnel Readiness Application*

- Provided support to thousands of Civil Engineer Squadrons around the world for software support for over 8,000 Explosive Ordnance Disposal troops
- Provided customer to development documentation (define client/user needs) for software requirements, design, release, and security

**Software Engineer**, NASA Jet Propulsion Laboratory/Bastion Technologies, Redstone Arsenal/NASA, Huntsville, AL, 2007-2010

- Served as Team Lead of multiple NASA OSHA Integration Programs to track training and certification for contractors and federal employees working within the Shuttle Program and providing success for over 20+ shuttles missions to the International Space Station (ISS)

**Computer Professional**, OnForce, Huntsville, AL, 2007-2015

**Computer Technician**, 21st Century, Tuscaloosa, AL, 2007-2008

**Graphic Design Specialist**, Chicago Flag, Huntsville, AL, 2007-2007

**Senior PHP Developer**, Marshall County IT Department, State of Alabama, 2004-2007

**Computer Repair Technician**, Pankey Computer Services LLC, Albertville, AL, 2003-2004

**Certifications**

- **Certified Kubernetes Administrator**, Cloud Native Computing Foundation, 2020 – Present
- **Checkmarx Certified Engineer (CxCE)**, Checkmarx, 2019 – Present
- **AWS Certified Cloud Practitioner**, Amazon Web Services (AWS), 2018 – Present

- Professional Scrum Master, Scrum.org, 2018 – Present
- Disciplined Agile Lean Scrum Master, Program Management Institute
- Certified Professional Agile Coaching (ICP-ACC), International Consortium for Agile (ICAgile)
- Certified SAFe 5 Program Consultant, Scaled Agile, Inc.
- Certified SAFe 5 Product Owner/Product Manager, Scaled Agile, Inc.
- Certified SAFe 5 Architect, Scaled Agile, Inc.
- Certified SAFe 5 DevOps Practitioner, Scaled Agile, Inc.
- Certified SAFe 5 Advanced Scrum Master, Scaled Agile, Inc.
- Certified SAFe 5 Product Owner/Product Manager, Scaled Agile, Inc.
- Certified SAFe 5 Agilist, Scaled Agile, Inc.
- Leading SAFe 5, Scaled Agile, Inc

### **Education**

- **Associate of Science**, Management Science, Community College of the Air Force, 2015 - 2017
- **Bachelor of Business Administration**, IT / Minor Marketing, Information Technology, Auburn University at Montgomery (AUM), 2013 – 2014
- **Associate of Science**, Construction Management, E5, Community College of the Air Force, 2006 – 2013
- **Associate of Science**, Business and Science, Columbia College, 2008 - 2010

### **3. Experience**

Please provide up to three examples of projects that the Proponent has completed within the past three years. Provide all significant details of the projects and their outcomes, including:

- Scope of the project;
- How this project constitutes relevant (i.e. of similar scope and complexity as defined above) experience for the
- purpose of this proposal;
- Proponent's /Subcontractor's role within the project, including activities performed;
- Deliverables, measures and timelines that applied to this project; and
- End result

#### **REFERENCE 1**

**Veteran Affairs (Veterans Identification Card) Application Platform One/ E-Screening, Science Applications International Corporation (SAIC), 2021 - Present**

**Scope of the Project.** For these projects, Appddiction provided services for modernizing the application and setting up the customer's CI/CD pipeline from GitHub for full stack deployments to OpenShift across the VIC (150 applications) and E-Screening (one [1] application) projects.

**How this project constitutes relevant experience for the purpose of this proposal.** This project is relevant for Cloud Native experience from application modernization (Java in this example), Cloud Native CI/CD pipeline experience with Tekton (OpenShift Pipelines), experience with build tool such as Buildah (OCI Standards) and Podman (RedHat tools), experience in Container security (OpenSCAP, Trivy, Quay Scanner), experience with GitHub and GitHub actions, experience with deploying Kubernetes resources with Argo CD (OpenShift GitOps), experience with working on onboarding new product teams into a standard workflow and container ecosystem (Red Hat OpenShift).

**Proponent's /Subcontractor's role within the project, including activities performed.** Mr. Summersill worked on the standard process for onboarding 150 applications to the OpenShift Platform.

**Deliverables, measures, and timelines that applied to this project.** Over the span of one (1) year, Appdiction completed the following for both projects:

- Modernized the Java JDK 1.8 application to be decoupled from server dependencies and become containerized.
- Hardened a Tomcat 9 server-based image that included automated NIST 800-53 compliance controls, artifacts for security as evidence, as well as implemented on Quay.io for reoccurring monitoring for CVEs.
- Set up a Multi-Stage Image that would build with standard tools on the first image and then deploy the WAR file into a hardened Tomcat 9 server image.
- Set up a Tekton Cloud Native Pipeline. The Pipeline was built under a Helm framework with resource such as tasks, pipelines, pipeline runs, event listeners, and pipeline resources; the pipeline was version controlled and configuration managed within a GitHub repository. The repository contained GitHub actions that were utilize with GitHub pages (chart index), to set up automated helm charts upon changes.
- Utilized Argo CD to either manually or auto sync changes from the Git Repository to produce a GitOps deployment to one or multiple OpenShift projects/namespaces.
- Set up a Tekton task with Buildah and set up utilizing the Open Container Initiative (OCI) specification guidelines. This process including utilizing Aqua Security Trivy to scan the images OCI binaries prior to meet the threshold of no high or medium findings, prior to allowing the image to be pushed to the Quay (Internal Server) image repository.
- Set up Istio Service Meshes, API Gateways, Sidecar policies, and Network Policies.
- Set up a full stack deployment with required resources for the VIC application to utilize the approved pushed image through Pre-Prod and Production.
- The applications were all standardize except for configuration properties which connected to servers all over the US. For that reason, a standard full stack deployment with dynamic Helm charts was utilized to identify resource that required provisioning based on each applications situation.
- The applications were all deployed to an OpenShift ecosystem.
- Utilized the Advanced Cluster Management (ACM) to integrate security policies, as this application did not reside on just one cluster.

**End result:** Modernized Application on an approved server-based image, with a Cloud Native Pipeline straight to production.

## REFERENCE 2

**Explosive Ordnance Disposal Information Management System (EODIMS), Department of the Air Force, AFLCMC, 2017-2019**

**Scope of the Project:** Appdiction provided unclassified development support services in support of the Automated Civil Engineering System (ACES) Family of Services (FoS), under which EODIMS is included. Under this contract, they work the EODIMS requirements backlog, with the current top priorities being a User Interface (UI) refresh and refactor, mobile application, and JEOD VIPPSA tasking, which will later be integrated into EODIMS by the ACES FoS sustainment contractor.

**How this project constitutes relevant experience for the purpose of this proposal:** This project demonstrates another migration to a Cloud Native environment using a GitOps approach and deployment to a container ecosystem (OpenShift). The key difference here is product teams worked within a standard GitLab repository to deliver the artifacts to the image repository.

**Proponent's /Subcontractor's role within the project, including activities performed:** Mr. Summersill served as the Enterprise Solution Architect, Sr. Scrum Master, and Agile/DevSecOps Subject Matter Expert (SME), worked on everything above as roles and responsibilities.

**Deliverables, measures, and timelines that applied to this project:** In the past five years (5), we performed the following:

- Converted the proprietary libraries within Oracle/WebLogic to TomEE.
- Update Technical Debt from JDK 1.6 Java Application with Application Development Framework (ADF) frontend to JDK 1.8.
- Decouple the Jar dependencies from the server, utilize ANT, convert from ANT to Maven once all libraries are locally identified.
- Containerize the application with WebLogic 11g to deploy to a Kubernetes development environment.
- Migrate the application to WebLogic 12c within a container to a Kubernetes development environment.
- Convert the application away from Oracle by utilizing TomEE and containerize.
- Utilize GitLab (GitOps) approach to scan test code coverage with SonarQube, scan with vulnerabilities with Fortify, build the image with Kanako, deploy image after thresholds to Harbor image repository.
- Set up a full stack deployment with Helm to push to Staging, Pre prod, and Production environments. Deployed to Platform One (Leading Cloud Native Pipeline for the Air Force)

**End result:** We provided a working GitOps pipeline with an upgrade application (with secure server-based image) and deployed to a OpenShift ecosystem using Helm full stack with Argo CD.

### REFERENCE 3

**Global Force Management – Organizational Server (GFM-DI), Department of the Air Force, AFLCMC, 04/2021 – 04/2027**

**Scope of the Project:** Appddiction provides immediate surge support to refactor, optimize, and secure fielded Oracle databases and to migrate Development, Test, Pre-Prod, and Production environments to DoD Cloud One and DISA on-prem hybrid architectures. This enabled an authoritative data source standardizing data exchange formats within DoD for decision support and contingency operations planning.

**How this project constitutes relevant experience for the purpose of this proposal:** Appddiction uses Terraform for IaC, utilized by experience ansible, utilize Selenium within a CI/CD approach; utilized Junit to provide test code coverage as well as run the within a CI/CD, and utilized Ansible dynamic AWS EC2 inventories as well with change management to node or virtual machines.

**Proponent's /Subcontractor's role within the project, including activities performed:** In the first week of performance, Mr. Summersill refactored SIPR and NIPR baselines and migrated a fully hardened, containerized system to Cloud One using our DevSecOps pipeline automating testing and validation. Appddiction met emergent/surge demands through our ability to quickly transition system ownership delivering immediate value.

**Deliverables, measures, and timelines that applied to this project:** We have performed on this contract for over (1) year. To date, we have met all deliverable deadlines, to include the following:

- Migrated an on prem application into AWS Gov Cloud.
- Set up Dev-container to regulate the tools to be utilize on both development and within restrictive Jenkins no internet access pipelines.
- Utilize Artifactory (JFrog) to push Terraform and Ansible packages to Jenkins which will be utilize to provision and configuration manage the infrastructure on AWS Gov Cloud.

- Utilize TerraScan and Checkmarx SCP to verify compliance best practice with infrastructure as Code Implementation.
- Process and run headless browsers with chrome for Selenium end to end testing.
- Produced an LCOV report to send to SonarQube, executed Junit test within Maven which delivered the test code coverage.
- Set up the IaC utilizing a Modularized approach for multiple JBoss EAP 7.4 Web Servers and Oracle 19c databases.
- Utilized Ansible to deal with patches, security control modifications, and other configuration changes of the virtual machines.

**End result:** Our automated pipeline accelerated the migration of environments to DoD Cloud One. We refactored Secure Internet Protocol Router (SIPR) and Non-Secure Internet Protocol Router (NIPR) baselines and migrated a fully hardened, containerized system to Cloud One using our DevSecOps pipeline automating testing and validation. Appdiction met emergent/surge demands through our ability to quickly transition system ownership delivering immediate value.

#### 4. Availability

Please confirm location and availability of proposed individual.

Mr. Summersill is located in <sup>s.22</sup> and would support remotely. Mr. Summersill will be available 9:00 AM until 5:00 PM PST.
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#### 5. Price

The price for services must not exceed \$300,000 CAD.

Provide one price for the proposed individual. If any of the price(s) being requested are unclear, submit a question as soon as possible to the Government Contact Person identified in the SRFP. If more than one price is proposed, the highest price only will be used for evaluation purposes. The Province will not pay any fees or expenses in addition to the prices proposed with exception of pre-approved travel as specified by the Contract that must not exceed the Province's Group II per diem rates (see [Appendix 1 - Travel Allowances \(gov.bc.ca\)](#) for more information). Preapproved travel expenses only apply to travel that is requested by the Province. Any other travel costs anticipated by the Proponent are to be included in the pricing proposed.

Appdiction has proposed <b><u>\$292,250 CAD</u></b> for our proposed Automation Specialist, Mr. Kevin Summersill.
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#### 6. Confirmation of Proponent's Intent To Be Bound

THIS PROPOSAL IS SUBMITTED IN RESPONSE TO THE REFERENCE SRFP INCLUDING ADDENDA (IF ANY). BY SUBMITTING THE PROPOSAL, THE PROPONENT AGREES:

- A) TO ALL THE TERMS AND CONDITIONS OF THE SRFP, INCLUDING THE SRFP RULES EFFECTIVE AS OF THE ISSUE DATE OF THIS SRFP;




- B) THAT THE PROPONENT HAS CONDUCTED SUCH OTHER INVESTIGATIONS AS WERE PRUDENT AND REASONABLE IN PREPARING THE PROPOSAL; AND  
C) TO BEING BOUND BY THE STATEMENTS AND REPRESENTATIONS MADE IN ITS PROPOSAL.

PROponent ORGANIZATION NAME (PRINT): Appddiction Studio LLC

(IF THE PROPONENT IS NOT AN ORGANIZATION, USE THE INDIVIDUAL'S NAME WHO WILL SIGN THE CONTRACT WITH THE PROVINCE IN THE EVENT THAT THE PROPOSAL IS SUCCESSFUL.)

OPTIONAL: BUSINESS NUMBER (I.E. GST/HST NUMBER), IF KNOWN: 747143139 – RT001

(SEE [www.bcbusinessregistry.ca/business-number.htm](http://www.bcbusinessregistry.ca/business-number.htm) FOR MORE INFORMATION)

SIGNATURE OF AUTHORIZED REPRESENTATIVE:  \_\_\_\_\_

PRINT NAME OF AUTHORIZED REPRESENTATIVE: Timothy Porter

PROponent'S CONTACT EMAIL ADDRESS: ksummersil@appddictionstudio.com

PROponent'S ADDRESS: s.22

s.22 \_\_\_\_\_

DATE: 17 May 2022