

STATEMENT OF WORK # ABC 230414-01-CAI
SUBMITTED BY
CapTech Ventures, Inc.
AS SUBCONTRACTOR TO
COMPUTER AID, INC.
FOR
CONTRACT NUMBER VA-210625-CAI
BETWEEN THE COMMONWEALTH OF VIRGINIA
AND
COMPUTER AID, INC.

This Statement of Work is issued on behalf of ABC, hereinafter referred to as “Authorized User.” The objective of the project described in this Statement of Work is for Supplier to provide Authorized User with IT-related services and deliverables. The Statement of Requirements (SOR), Appendix 1, is incorporated into this agreement. The SOW and SOR may contain additional terms and conditions; however, to the extent that the terms and conditions of the SOR are inconsistent with the terms and conditions of the Contract or any modification thereto, the terms of the Contract shall supersede. The Order of Precedence is:

- I. Contract Including all modifications
- II. The SOW
- III. The SOR

1. Project Scope and Understanding of the Requirements

Supplier acknowledges it has reviewed the SOR and has completed Appendix 2, the Compliance Checklist, indicating any and all constraints and qualifications of this solution. The project scope, as defined by Authorized User, is contained in the SOR. This section describes Supplier’s understanding of the scope and requirements.

Summary:

The Virginia Alcoholic Beverage Control Authority (Authorized User) has a bugs and backlog (BnB) operation, which is primarily how custom in-house developed software is maintained and enhanced. The Authorized User is seeking assistance with a review of the bugs and backlog operations, to provide current state and future state, with recommendations, roadmap, and timeline.

As part of the SOR, Authorized User defined parts to the scope of work:

1. Part One: Assessment
2. Part Two: Recommendations & Roadmap

Supplier agreed with the approach and incorporated all work products in scope. Supplier includes a detailed explanation of the scope for each work phase and project approach in Sections 2 and 3.

After reviewing Authorized User’s business needs and tailoring our Solution effort to meet those needs, Supplier is prepared to deliver a complete solution to meet Authorized User’s goal. Supplier is well-positioned to partner with Authorized User across all aspects of the requested work to address these challenges based on our:

- **Long-standing partnership with the Commonwealth of Virginia (CoVA)** – Supplier has over twenty (20) years of partnership with CoVA agencies, helping the Commonwealth improve processes, modernize systems,

and facilitate the adoption of organizational changes. We not only understand how CoVA information technology (IT) systems work but also how Authorized User functions overall as a service organization and its underlying business goals. This understanding allows us to ramp up high-performing teams more efficiently and effectively.

- **Ability to rapidly deliver solutions that address urgent challenges while creating long-term value** – Authorized User's readiness for transformation efforts is critical, and we applaud your efforts thus far. Supplier's full-service consultancy brings the right blend of industry expertise and technical experience to help streamline processes and simplify operations while aligning with the overall goals of the business. We understand the challenges of prioritizing urgent undertakings while initiating important longer-term programs and know how to drive alignment and maximize value to the agency. Our experts work side-by-side with our clients to deliver solutions that achieve sustainability for the long term. We share successful strategies and partner with Authorized User to have a clear understanding of business goals and business needs to define and deliver solutions that realize lasting value with greater agility and heightened productivity.
- **Deep expertise and qualifications across Authorized User's relevant needs** – Supplier has a Management Consulting (MC) practice that focuses on Project Management, Process Engineering (PE), Business System Analysis and Change Management services. Our highly skilled consultants bring the right technical expertise and help achieve impactful results. We provide actionable recommendations that address business needs and have proven to optimize organizational performance, drive repeatability, reduce risk and improve citizen experience, among other for the Commonwealth of Virginia and other states.

CapTech is uniquely suited for this project because of our qualifications in both the Management Consulting and the DevOps mindset – not only can we provide the ability to create recommendations with the CI/CD framework in mind, but we can ensure your stakeholders understand the benefits of this approach, as well.

Our project managers enable project, program, and portfolio success. We focus on understanding business goals and help deliver excellence and achieve results defining a flexible and adaptive framework that supports Authorized User's program infrastructure, effective communication, informed decisions, risk and issue mitigation, program transparency and process efficiency.

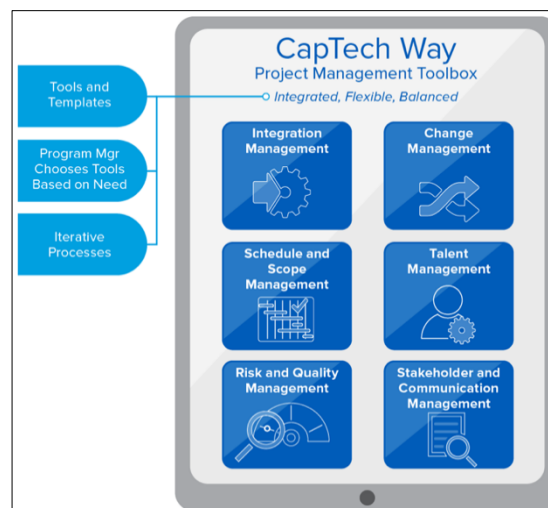


Figure 1: Project Management Expertise

- **Technical Leadership who leverages our experiences to guide impactful recommendations** – Systems Integrations (SI) leadership is comprised of solution architects who not only provide analysis and recommendations on systems and processes, but also are the engineers who implement roadmap recommendations and delivery improving client effectiveness. Our “engineers for engineers” approach enables deep understanding of the technology details within the workstream of a feature from request to delivery and post-production to finding the improvement opportunities and providing realistic recommendations for immediate success.

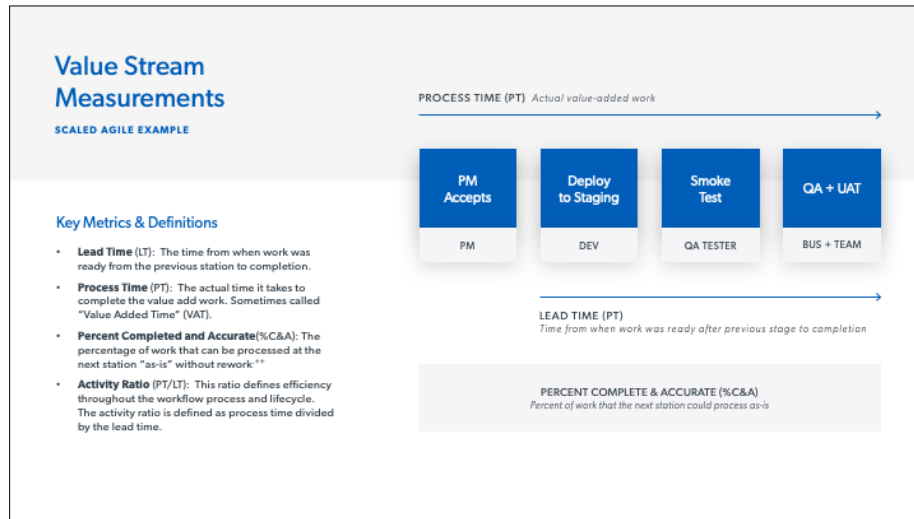


Figure 2: Value Stream Measurement

- **Relevant Work Experience and Proven Delivery Approach** – Supplier has deep experience providing assessment, business process and technology transformation consulting services. We deliver technology solutions through iterative, agile methodologies for the states of Virginia, New York, Minnesota, Kansas, Washington, and Nevada. We have also led transformations, pilot programs, assessments, training, and coaching for dozens of Fortune 500 Agile and DevOps clients in the private sector. Below we've highlighted relevant strategic business process work and assessment initiatives that we performed.



Figure 3: CapTech Agile & DevOps Experience

Client	Project Description
State of North Carolina: DHHS	<p>Supplier conducted a Strategic Assessment of the agency's existing IT delivery and project management practices in preparation for a major, multi-system application re-platforming effort spanning multiple delivery teams and more than ten (10) total legacy systems. Over a 12-week period, we used a multi-faceted approach to (1) assess current state and (2) provide an implementation roadmap of recommended corrective actions to help promote agility and lean engineering processes within a highly governed environment. The assessment, conducted via cross-functional interviews, artifact analysis, Agile Maturity assessment surveys, and Value Stream Mapping (VSM) workshops, covered all aspects of Systems Development Life Cycle (SDLC) from project conception and initiation through design, build, test, deploy, and sustain phases of work, assessing the various delivery pipelines in the context of their end-to-end value streams. This allowed us to isolate and analyze individual sub-processes within the Department's IT delivery ecosystem while avoiding sub-optimizing the whole (end-to-end). Deliverables included:</p> <ul style="list-style-type: none"> • Baselined Modernization Vision and Goals for the Organization and its modernization program • Current State Assessment of People, Processes, and Tools supporting IT delivery • Re-baselined Current State Architecture Diagrams to assist Enterprise Architecture (EA) team in writing To-Be System Requirements for modernized/re-platformed systems. • Guiding Principles for driving Agility and ensuring Business-IT alignment amid execution of multiple complex projects running in parallel • Initiatives Roadmap detailing recommendations for process updates and injection of Agile project management practices to improve delivery outcomes and drive down sustainment costs over time
Fortune 5 Healthcare Company	<p>Supplier conducted assessments of Enterprise IT and business landscape components feeding large-scale, multi-year capital planning processes and concurrent modernization efforts of multiple business-critical applications in parallel. Assessment domains included (1) Test Automation and Quality Assurance practices and procedures, metrics, and technical enablers, (2) Enterprise Data Architecture and reporting landscape, and (3) functional business process domains and their underpinning technology components. For each assessment, Supplier produced:</p> <ul style="list-style-type: none"> • Current State Assessment of People, Processes, and Tools supporting IT delivery • Definition of Future State Enterprise Data Architecture, DevOps tooling structure, and enterprise reporting landscapes, aligning IT modernization plans with business goals and desired outcomes • Strategic Roadmap for closing gaps between Current State and desired Future State
State of Iowa: Agency of Workforce Development	<p>Supplier conducted a Business Process Analysis for Iowa's Unemployment Insurance System Integrity Office, remediating overpayment issues. We performed root cause analysis and delivered over twenty distinct, achievable process efficiency and transparency recommendations that produced target results. We've included as an attachment to our response a letter, from Iowa State Leadership, regarding our successful approach on this effort providing real and useful recommendations to improve Iowa's UI payment integrity and help identify opportunities to create efficiencies.</p>

<p>State of Virginia: Department of Health</p>	<p>Supplier has led multiple assessments to achieve operational efficiency for the agency's Drinking Water State Revolving Loan Fund (DWSRF) program including:</p> <ul style="list-style-type: none"> • Strategic Assessment – analysis of the program to identify opportunities within its people, processes, and technology. The effort provided recommendations and a roadmap with a strategic plan to modernize the program. • Process Reengineering Assessment – analysis of current processes and tools across seven regions. The effort resulted in process standardization and optimization to better manage funded projects and facilitate decision making.
<p>State of Virginia: Department of Environmental Quality</p>	<p>Supplier has led multiple assessments:</p> <ul style="list-style-type: none"> • Enterprise Project Management Assessment - assessed the agency's readiness to complete a large scale and complex modernization of their core system. As part of the effort Supplier defined an IT Project Management Office (PMO) based on agency's maturity and capabilities, implemented a project management methodology and development standards, provided training, coaching, and mentoring to support adoption and helped oversee the agency's full project portfolio. Supplier guided the structure the agency's architecture team, defined and documented release management and database refresh processes, and developed an agency communication strategy with tactical activities to improve and ensure successful end user adoption, communication, and training • Enterprise Data Assessment: Identified opportunities and provided recommendations for agency cost reductions and significant improvements across data quality, data governance, reporting, and user collaboration. The effort included stakeholder interviews across all agency divisions and programs (25+ groups, 80+ users), the definition of an enterprise data strategy aligned with the agency's strategic plan, which provided a list of recommended tasks with dependencies, expected benefits, estimated level of effort, and what the task entails.
<p>State of Virginia: Department of Taxation</p>	<p>Supplier has supported across several strategic business, customer, and technology transformation initiatives to achieve business objectives and key results focused on tax administration excellence, human capital infrastructure, operational effectiveness, and streamlining business processes. This includes:</p> <ul style="list-style-type: none"> • Delivery of an executive citizen-first framework and strategy to the Commissioner and leadership to incorporate constituent needs and target outcomes into projects and initiatives. • Process Engineering Assessment for the Office of Administration focused on multiple processes: project management, procurement management, invoice management, budget reporting, telework agreements, employee recognition, time tracking, policy development, and various HR processes such as onboarding, recruitment, interviews, and communications. • Transform their backlog of initiatives to align to strategic plan tactics, objectives, and key results and created roadmap.

Table 1: Relevant Experience

Additional strategic assessment qualifications for state government agencies are listed in SOW Attachment 4.

2. Contract Products and Services to Support the Requirements

a. Solution Components

The following represents technologies Supplier plans to use during the proposed solution:

- Microsoft Excel and Word for quick analysis, insights, documentation
- Microsoft PowerPoint for documentation and presentation of findings
- A virtual collaboration tool (LucidChart, Miro, Microsoft Whiteboard, or comparable)
- Access to existing collaboration tool(s), for messaging, email, and meetings

These components will enable the documentation for the assessment of policies, procedures, processes, and the roadmap/recommendations for future state.

b. Services

Supplier will examine each individual process and apply Lean Six Sigma methodology (a combination of Lean IT principles and Six Sigma Process Improvement techniques) and Project Management best practices to identify what is working well, what could be improved, and how any necessary improvements can best be made through implementation of an enhanced practice management framework. By applying both process engineering and project management best practices and disciplines, Authorized User will achieve lasting and sustainable results in each assessment area while also achieving overall productivity and quality improvements in end-to-end IT delivery value streams.

Part One: Assessment

Before beginning any analysis and interviews, Supplier will meet with leadership in IT Operations to confirm the list of stakeholders to be interviewed and to establish a detailed project schedule for the engagement. Supplier, along with IT Operations, will identify the objectives and guiding principles for the Bugs and Backlog portfolio so any information gathered during interviews can be mapped to the objectives to determine if there are gaps in the existing process.

Developing a list of stakeholders to be interviewed, including those in Development, BSAs, QAs, BnB Administration, Business Stakeholders and IT Stakeholders, the Supplier will be best positioned to understand the current process and determine where pain points exist throughout the process. By having a diverse group of stakeholders participate in the interviews, the information gathered will provide a complete view of what should occur and what occurs in the BnB portfolio request process. Additionally, across all aspects of our Assessment, Supplier will:

- **Review Documentation** – analyze current process flow and detailed systems documentation that impact the SDLC workstreams
- **Perform Self-Assessment Surveys** – gather information directly from community to understand current state, team impact as it pertains to the assessment.
- **Conduct Value Stream Mapping Workshop** – to understand the work stream from concept to production, identify inefficiencies in the delivery pipeline and provide insights to recommendations with real data.

SDLC Lifecycle Assessment

Supplier will document the current process for how in-house developed applications at the Authorized User are maintained through the Bugs and Backlog portfolio. The analysis will focus on the six main phases in the requested work lifecycle (In-Take, Triage, Planning, Work Execution, Release Management and Deployment). The phases of the lifecycle process will be assessed to determine how each is functioning within itself and in tandem with the other phases:

In-Take

Through interviews and review of existing process and procedure documentation, Supplier will document how a request for work is created at the Authorized User and routed to the correct team member for further analysis. Supplier will interview the stakeholders who are responsible for gathering the initial request and determine what additional

information they document to get the request ready for review. An inventory of tools used to gather and manage the requests will be created.

Triage

Included in the assessment will be documenting the criteria that are used to prioritize a request and determine if it will be completed by the BnB team or the Project Management Office. This will include the criteria used to determine if a request is accepted or denied and whether it will be labeled as a defect or enhancement. Supplier will document the steps an analyst goes through to review and provide additional information about a request so it can proceed to the next step. This analysis will also include documenting any other stakeholders on the business or technology teams that are involved in the triage process and how it is determined which stakeholders are involved.

Planning

During the next phase of the BnB request assessment, Supplier will look at how detailed requirements are documented for a given request. This will include documenting what business and technical design deliverables are created for each request and whether there are required deliverables depending on the type of request. Supplier will interview both business and technical stakeholders at the Authorized User to understand the steps that are involved in designing a request to get it to a stage when it is ready for development. Included in this section will be documenting how the level of effort for a work request is determined, how the work is prioritized against other existing request, and how the anticipated date of release is determined. In addition, Supplier will document the reviews and approvals that occur for each deliverable in the design phase.

Work Execution

Supplier will document the development process for each request. This will include understanding the branching strategies, how code is written and managed within a repository as well as how that code is merged and deployed to the various test environments. Included in the analysis of the development process will be documentation of how software is tested which will include testing done by a developer, automated testing, testing done by QA resources, and how third parties are engaged if they need to be included in testing and validation. The process and tools used to quality gate software and improve efficiency during the development cycle will be examined for potential quick wins. The current state of unit, functional, regression, and integration testing capabilities will be documented as well. Finally, Supplier will document the User Acceptance Testing (UAT) process, how business stakeholders are engaged for testing and how test results are documented. This phase of analysis will also include documenting how defects found during the development phase are triaged and how the determination is made if the defect must be addressed prior to the release or if it can be put on the BnB backlog.

Release Management and Deployment

The final phase of the current state assessment will include the documentation of how the development of requests is finalized and how the finished product is released and deployed to production. This includes understanding the branching strategy and how releases are managed for new features, hot fixes, and how the code is synchronized across branches and versioned appropriately. This will also include a technical review of how code is released to production and the controls that are in place. In addition to a technical assessment, Supplier will document how releases are communicated to impacted stakeholders and how the result of the release is validated to ensure the systems are working as expected in production.

All technology, data, and infrastructure are subject to discussion and evaluation during the project initiation and will be based on hands-on experience and Supplier's insight into needs, environment, and capabilities.

Deliverables for Part One:

- ✓ Interview Findings Presentation
- ✓ Current state process definition (process flows and documentation of procedures)
- ✓ Prioritized list of gaps, pain points, risk & issues
- ✓ Value Stream Mapping Results
- ✓ Inventory of tools used during BnB SDLC process

Part Two: Recommendations & Roadmap

Future State & Roadmap

Operational Support Model

Using the objectives gathered during the assessment phase as the foundation, an operational support model will be created that focuses on maximizing the effectiveness of the BnB portfolio process and ensuring that stakeholders are engaged at the correct time in the process. The updated support model will use the current state process as an input but will not be constrained by “how things are done today.” Included in the recommended support model will be definitions of:

- **How requests are submitted** and what information should be included with a request so it can be appropriately assessed and prioritized
- **How submitted requests are routed** to the appropriate analyst for assessment
- **Who decides if a request is accepted** for further analysis
- What steps are included in the assessment process so the **impact, level of effort, risk, and priority of request can be determined**
- Who is responsible for **determining the priority of requests** and whether a request remains in the BnB portfolio or is transferred to the PMO
- What objective **criteria is used to prioritize requests**
- How are **relevant stakeholders impacted by the requests engaged** to gather requirements, confirm design, and perform user acceptance testing
- How relevant stakeholders are **informed of progress** of requests
- How should **external stakeholders be engaged** if work is needed from them to satisfy a request or if they are impacted by a change made in a request

Changes to policies, process, standards, and procedures

Supplier understands the impact a well-balanced and highly functional IT organization has on the Authorized User's capability to deliver on its strategic and tactical goals. The overall staffing model is at the very foundation of a successful IT Department. To understand an IT Department's capability to drive success, Supplier will assess how the current organization model is operating, where there are areas for improvement, what gaps need to be filled, and how the current model aligns with the Authorized User's strategic plans. To accomplish this, Supplier expects to utilize the information gathered during the Assessment Phase, including IT operational procedures, service level agreements, IT staffing and position, strategic and tactical plans.

The proposed BnB strategy that results from this project may require different role profiles and skills than are currently found within the Authorized User. The Supplier team will provide an evaluation of the IT organization's capability to deliver against the proposed longer-term strategy. The recommended updates to policies, standards, and procedures will be reviewed with relevant SMEs in HR, legal, audit and other teams within the Authorized User to ensure the recommendations comply with overall the Authorized User and Commonwealth of Virginia's policies and procedures.

Supplier has experience driving process improvement across various areas of an IT department. The Supplier team will use the interview results to identify which IT processes require the biggest remediation. Those processes will target the specific areas for the Authorized User that require assessment, based on the Authorized User's strategic plan, the team's initial findings in the Assessment Phase, and Supplier's knowledge of industry best practices. We will use the results of the Assessment Phase to confirm which of the Authorized User's processes require review and updates.

New/updated resource allocation matrix

Based on the recommended updates to the operational support model a new resource allocation matrix will be created. Supplier will recommend a high-level staffing model based on the Authorized User's strategic plan and industry benchmarks. Included in this deliverable will be a comparison of the new resource allocation matrix to the existing structure so gaps can be identified. This will help the Authorized User to determine what changes need to be made to staffing to support the new resource allocation. The changes may be additional staff allocated to the BnB portfolio or a change in the existing disbursement of staff to better fit the new operational model. Supplier recommends an RACI (Responsible, Accountable, Consulted, Informed) Matrix be created in addition to the resource allocation matrix so all impacted stakeholders can be identified rather than those that are just part of the BnB portfolio team.

New/updated skills matrix

Using the updated operational support model for BnB, Supplier will create a skills matrix that will assess the current capabilities of the Authorized User roles against the skills needed to effectively support the BnB portfolio. Included in this deliverable will be recommendations for how the Authorized User can close any of the identified skill gaps either through training, job changes, or hiring additional resources. These recommendations will be provided at the role level for the Authorized User and job descriptions along with interviews will be used to determine what skills and experience are expected for each role.

Tooling recommendations

Following the current state Software Development Lifecycle (SDLC) Assessment of processes and technology, Supplier will provide recommendations on current and new tooling. Current tooling recommendations may include updates to usage of the tools for increased clarity and improved efficiency, upgrading the tools for additional functionality, and/or training of the tools to support BnB personnel. New tools may be recommended in addition to or replacement of the current tools being used. Recommendations will be guided by cost, impact, and level of effort and will be prioritized in partnership with BnB.

Recommended roadmap

Based on the recommended changes to the operational support model, policies and procedures, team makeup as well as recommended changes to the tools used within the BnB portfolio, Supplier will build a plan that prioritizes the most important outcomes for the organization and serves as a blueprint for piloting change that supports the Authorized User's organizational imperatives. The roadmap is organized into short, medium, and long-term objectives which typically correspond to 3, 6, and 12-month timelines. The specific components of the roadmap will derive from the future state vision, however typical roadmaps include the following:

- Identify **short, medium, and long-term roadmap objectives** specific to your organization and vision for success
- Define working **entrance/exit criteria** for transformation milestones
- Outline **training, coaching, and continuous learning opportunities** to build the skillsets needed in-house to support the transformation
- Outline **organizational incentives and change management activities** needed to help drive necessary behavioral changes
- Outline measurements that can be used to **measure progress** and self-sustainability

The final phase of the project will be spent reviewing the deliverable drafts with the Authorized User and refining the recommendations and the plan with additional feedback from the Authorized User reviews, industry best practices and any external interviews from other state agencies.

Deliverables for Part Two:

- ✓ New/updated operational support model for Bugs and Backlog
- ✓ Recommended changes for policies, processes, standards & procedures for BnB, areas of the SDLC covered by the assessment, and resource allocation.
- ✓ New/updated resource allocation matrix
- ✓ New/updated skills matrix
- ✓ Tooling recommendations
- ✓ Recommendations for addressing existing resource and skill gaps.
- ✓ Recommended roadmap that outlines sequencing, timeline, and approach to implementing recommended changes

c. Training and Knowledge Transfer

Successful operational improvement efforts require alignment and clarity throughout all levels of an organization. Establishing alignment starts with a clear definition of the **business** outcomes that an organization is looking to achieve and defining how the organization should operate.

Supplier will work with leadership at the Authorized User to document the strategic organizational objectives and goals associated with the BnB process improvements. These desired outcomes (the **why**) will drive lower level recommendations (the **what**) and roadmap prioritization (the **when**) delivered as part of Supplier's engagement with the Authorized User.

d. Support

With this being an Assessment effort, Supplier does not anticipate the need for support.

3. Project Events and Tasks

Work Phase	Activities; SOR section(s)	Duration
1	Project Kick Off <ul style="list-style-type: none">• Project Plan• Stakeholder Interviews	4 weeks
2	Current State Assessment <ul style="list-style-type: none">• Current State Findings• Analysis and Recommendations	3 weeks
3	Future State Recommendation <ul style="list-style-type: none">• Future State Assessment/Refinement• Future State Readout	5 weeks

Table 2: Project Phases and Activities

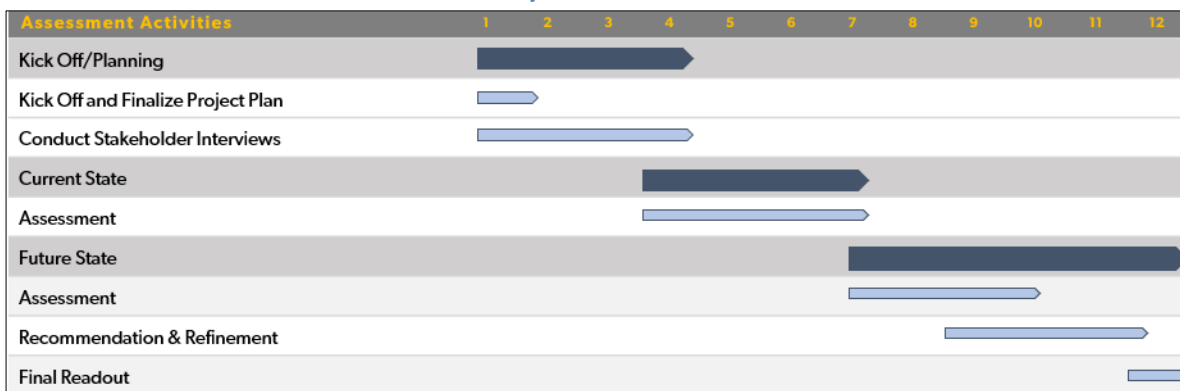


Figure 4: Schedule of Delivery

4. Period of Performance

Delivery of all products and services defined in this Statement of Work will occur within 12 weeks of the project execution date.

5. Place of Performance

Tasks associated with this engagement will be performed at remote/virtual locations due to the COVID-19 post pandemic workforce climate. If both the Authorized User and the Supplier agree that in person services are needed during the project timeline, then Supplier can perform tasks at the Authorized User's location(s) in Richmond, Virginia, at Subcontractor's location(s), or other locations as agreed upon, and required by the effort.

Supplier has an office in Richmond, VA and can support a request by Authorized User to have the kick-off, interviews and critical review milestones hosted at their office location.

6. Supplier Personnel

Supplier and Authorized User agree that qualified and experienced personnel indicated as "Key Personnel" are critical to the performance of the project and that they will not be removed from this task without prior approval from Authorized User and that Authorized User will have the right of refusal for any personnel assigned to the Team. After task award, Supplier shall secure written approval from Authorized User prior to making any changes in Team personnel. Supplier will notify Authorized User, in writing, of any changes in the personnel assigned to the Team. The qualifications of new personnel should be equal to or exceed those of the replaced personnel. After task award, Authorized User may request replacement of Team personnel. Such requests will be in writing.

The Supplier Chart includes representative consultants that will complete the project, depending upon award and project start dates.

Qualifications and References for Subcontractor personnel are contained in Appendix 3, Subcontractor Personnel Qualifications and References.

Role	Name of Proposed Resource	Key Personnel (Y/N)	Years of Experience	Certifications	Utilization
DevOps Lead	Ryan Tarrant	Y	10	BA Computer Science, MA CIS	80%
Engagement Lead and Process SME	Drew Bowman	Y	10	BA – BA, Mgmt	100%
Process Analyst	Jonelle Levy	Y	5	BA, MS HRIS	100%

Table 3: Role and Resource

7. Milestones, Deliverables, Payment Schedule, and Holdbacks

The following table identifies milestone events and deliverables, the associated schedule, associated payments, any holdback amounts, and net payments.

#	Milestone Event(s)	Deliverable(s)	Estimated Completion Date	Amount
1	Kick-off meeting, Planning, and Stakeholder Interview Findings	<ul style="list-style-type: none"> • Interview Findings Presentation • Current state process flows & documentation of procedures (in progress) • Value Stream Mapping Results 	4 weeks from start of engagement	\$100,000
2	Current State Assessment	<ul style="list-style-type: none"> • Prioritized list of gaps, pain points, risk & issues • Current state process flows & documentation of procedures (completed) • Inventory of tools used during BnB SDLC process • Current State Assessment Presentation 	7 weeks from start of engagement	\$100,000
3	Future State Assessment Findings and Recommendations	<ul style="list-style-type: none"> • New/updated operational support model for Bugs and Backlog • Recommended changes for policies, processes, standards & procedures for BnB, areas of the SDLC covered by the assessment, and resource allocation • New/updated resource allocation matrix • New/updated skills matrix • Tooling recommendations • Recommendations for addressing existing resource and skill gaps • Recommended roadmap that outlines sequencing, timeline, and approach to implementing recommended changes 	12 weeks from start of engagement	\$74,000
	Total			\$274,000

Table 4: Milestone/Deliverable with Cost

The total solution price shall not exceed US \$274,000.

In addition to the required deliverables specified in the SOR, Supplier will provide copies of any briefing materials, presentations, or other information developed to support this engagement.

Deliverable Acceptance Process

Each deliverable created under this Statement of Work will be delivered to Authorized User with a Deliverable Acceptance Receipt. This receipt will describe the deliverable and provide the Project Manager with space to indicate if the deliverable is accepted, rejected, or conditionally accepted. Conditionally Accepted deliverables will contain a list of deficiencies that need to be corrected for the deliverable to be accepted by the Project Manager. The Project Manager will have five (5) business days from receipt of the deliverable to provide Supplier with the signed Acceptance Receipt.

8. Acceptance Criteria

Acceptance criteria shall include that the deliverable (i) is in a format and has, minimally, the content required by Authorized User, (ii) satisfies all associated requirements; and (iii) accomplishes the purposes for which the Authorized User intends the document.

9. Project Roles and Responsibilities

Responsibility Matrix	Supplier	Authorized User
Kick Off Meeting	✓	
Conducting Interviews	✓	
Documentation	✓	
Project Communication	✓	✓
Review of Documentation		✓
Project Sign Off		✓

Table 5: Responsibility Matrix

10. Assumptions

This section contains assumptions specific to this engagement. Authorized User shall reasonably cooperate with Supplier to complete the Services and Deliverables described in this SOW. Authorized User's failure or delay in completing tasks or obligations required of Authorized User, and any assumption contained herein which is untrue or incorrect, may impede or delay completion of the Services and Deliverables, and will excuse Supplier's delay or failure to perform hereunder. Such delays or failures may result in changes to the schedule, staffing, and approach and additional charges for the Services and Deliverables.

Category	Assumption
Interviews/Meetings	Authorized User will identify stakeholders for interviews, workshops, and review meetings by the close of business on the last day of Week 1.
Interviews/Meetings	Supplier commits to performing a maximum of 15 total interviews split across phases. Supplier may include multiple divisions and stakeholders during interviews. Supplier may perform more than 15 interviews, but Authorized User understands this is not a requirement of the Supplier.
Interviews/Meetings	Supplier will conduct a maximum of one (1) value stream mapping workshops with Authorized User to revise deliverables including: current state processes, recommendations, and system requirements.
Interviews/Meetings	Supplier will deliver a maximum of two (2) final executive presentations to Authorized User built off iteratively accepted insights throughout the assessment process.

Category	Assumption
Work Location	Supplier plans to perform tasks associated with this engagement at remote/virtual locations unless Authorized User requests work on site.
Travel	Authorized user does not expect Supplier personnel to travel during this engagement. Supplier will perform interviews with remote stakeholders via web conferencing technology (provided by Supplier) or videoconferencing if remote stakeholders have access to videoconferencing resources that are compatible with Supplier's associated resources.
Access (Systems/Network)	While onsite at Authorized User's facility during agreed-upon times, Supplier personnel will have access to the workspace, equipment, software, and supporting infrastructure necessary to accomplish their assigned tasks. This includes internet access.
Access (Client Resources)	Authorized User will provide Supplier with necessary access to appropriate stakeholders and systems in a timely manner to sustain project activities. Authorized User's resources will be available for meetings/requirements and design sessions within two (2) business days of the request.
Access (Client Documentation)	Upon project start, Supplier will have access to existing documentation in scope (e.g., process documentation, procedures, etc.) pertaining to the existing technology, environments, tools, people, and processes.
Allocation (Administration stakeholder)	Supplier's approach requires a key Administration stakeholder from the Authorized User to be engaged with the project team on a regular basis. This stakeholder will provide existing organizational documentation, identify, and coordinate additional project participants, participate in interviews and elicitation meetings, review work products and deliverables, and work to mitigate or resolve project risks and issues quickly.
Allocation (IT Team)	Authorized User's IT and IT Security staff will assist with the navigation of the Virginia IT Agency processes required for system replacement to ensure these requirements are included in the requirements being defined.
Future State Strategy	Authorized User will be prepared to fully describe future state business goals, plans, and capability needs during Phase 1 to support project planning.
Approval Process	Authorized User and Supplier will collaboratively review deliverables in an informal manner as Supplier drafts them to create visibility and feedback throughout the process prior to the Deliverable Acceptance Process.
Approval Process	Authorized User will provide feedback and approval of the final version of each of the deliverables detailed above within five (5) days of final submission. Failure to provide feedback/approval within the specified timeframe will result in automatic approval of the document. Any changes to the document at that point will go through a change control process and may impact the schedule and/or pricing.
Change Control	Any delays in the project schedule not caused by Supplier (e.g., late delivery of dependent tasks from third parties or other external entities) will result in a change request if Supplier resources must spend additional time on the project.
Project Cancellation	If Authorized User cancels the project at no fault of Supplier, then Authorized User will pay Supplier on a prorated basis for all progress made on deliverables.
Scope	Supplier will complete the scope of work as defined: 1. Part One: Assessment

Category	Assumption
	<p>2. Part Two: Recommendations & Roadmap</p> <p>Our Scope is built upon the BnB SOR, which serves up to 50 applications.</p>
Deliverables	Authorized User will clearly communicate expectations for deliverables during the first week of the engagement. Any request that significantly alters these assumptions or expectations after approval of the project plan may require a change request.
Deliverables	<p>Deliverables for Part One:</p> <ol style="list-style-type: none"> 1. Interview Findings Presentation 2. Current state process definition (process flows and documentation of procedures) 3. Prioritized list of gaps, pain points, risk & issues 4. Value Stream Mapping Results 5. Inventory of tools used during BnB SDLC process <p>Deliverables for Part Two:</p> <ol style="list-style-type: none"> 1. Interview results from Development, BSA, QA, BnB Administration, Business Stakeholders and Leadership 2. New/updated operational support model for Bugs and Backlog 3. Recommended changes for policies, processes, standards & procedures for BnB, areas of the SDLC covered by the assessment, and resource allocation. 4. New/updated resource allocation matrix 5. New/updated skills matrix 6. Tooling recommendations 7. Recommendations for addressing existing resource and skill gaps. 8. Recommended roadmap that outlines sequencing, timeline, and approach to implementing recommended changes.
Deliverables	Supplier will maintain artifacts in a mutually agreed upon repository. Authorized User will retain ownership of all artifacts produced in support of this engagement.
Approval Process	Upon completion of each deliverable, Authorized User will formally accept in writing all deliverables in accordance with the deliverable acceptance process and acceptance criteria defined in this SOW.
Value Stream Mapping	Value Stream Mapping will occur for a maximum of 1 applications and will examine 1 feature for each application through the end-to-end process. BnB will provide necessary personnel to walk through the workflow of a feature from request to production.

Table 6: Assumptions

11. Security

Supplier will complete all required background checks and meet other security requirements identified in the SOR.

12. Performance Bond

N/A

13. Risk Management

Risk management will include risk identification, risk assessment, and risk response strategy. Supplier will track and report this information to Authorized User on a bi-weekly basis in a status report. Supplier will minimally report on medium-to-high risk items in the bi-weekly status report.

Risk Identification

Supplier and Authorized User will identify risks using techniques such as brainstorming, design and document reviews, daily standups, and interviews.

Risk Assessment

Risk assessment follows risk identification. This step includes evaluating identified risks in terms of probability and impact determined by the project team. For each risk item, Supplier and Authorized User will collaboratively determine the probability that this will occur and the resulting impact if it does occur. If a conflict arises between Supplier and Authorized User on risk identification and probability, Authorized User will make the final determination.

Risk Response Strategy

The project team will select the risk response strategy based on the risk assessment. Approaches to risk response include the following:

- **Risk Acceptance Approach:** Project team makes no effort to avoid the risk item. The project team will have a backup plan to minimize the effects of the risk event or will take no action.
- **Risk Avoidance Approach:** This reduces risk by taking steps to remove the risk or engaging in an alternative activity—or otherwise end a specific exposure. For example, carefully defining the project's scope can avoid the possible consequence of "scope creep" or indecisive, protracted, and uncertain scope objectives.
- **Risk Mitigation Approach:** Emphasis is on reducing the risk's impact through proactive steps taken in response to the identification of the risk. Supplier and Authorized User will monitor and update the risk management log throughout the project lifecycle.

14. Reporting

Supplier believes that a successful partnership requires the open sharing of project goals; a cooperative approach to assessing risk; and open access to information for collaboration and communication of plans, actions, and project status. Supplier's reporting approach provides frequent, up-to-date, and thorough project status information to the Authorized User via two primary channels: daily standup meetings (informal) and weekly reports.

Supplier's Project Manager will facilitate a daily ten-minute standup to discuss the day's tasks, deadlines, and risks. This meeting determines the priority of outstanding tasks and plans for upcoming work. Supplier and Authorized User will use these standups to resolve issues in real-time. If Authorized User's Project Manager or designee is unable to attend these meetings, Supplier can communicate the highlights of the meeting via email.

Supplier's weekly written status reports shall include at a minimum the following:

- Overall status
- Schedule status as reflected by accomplishments to date as compared to the project plan
- Any changes in tasks
- Updated schedule with current target dates
- All open issues or questions regarding the project, cost, or schedule
- An action plan for addressing open issues or questions
- Potential impacts of open issues or questions
- Corrective action plan (if requested by Authorized User)
- Risk management reporting

As part of risk management reporting, the weekly reports will include all risks and issues encountered during the project. For each risk/issue the report will:

- Categorize the risk/issue, provide details, and assign priority.
- Establishing action and response plans.
- Track and report the current status.
- Establishing escalation procedures to obtain additional assistance.

15. Point of Contact

For the duration of this project, the following project managers shall serve as the points of contact for day-to-day communication:

Authorized User: _____, ABC, Keith Russell and Jennifer Wade

Supplier: _____, CAI Account Manager, Lyndsay Graham

By signing below, both parties agree to the terms of this SOW.

Supplier

Supplier Name: Computer Aid, Inc.

By: _____
(Signature)

Name: _____
(Print)

Title: _____

Date: _____

Authorized User

Agency: _____

By: _____
(Signature)

Name: _____
(Print)

Title: _____

Date: _____

Statement of Requirements (SOR)
SOW Appendix 1

STATEMENT OF REQUIREMENTS (SOR)

SOR # ABC-230414-01-CAI

Virginia ABC IT In-House Software Maintenance Stack Assessment

1. **Date:** April 14, 2023
2. **Authorized User:** Virginia Alcoholic Beverage Control Authority
3. **Authorized User Contact Information:**

Keith Russell, Director of IT Operations
7450 Freight Way
Mechanicsville, VA 23116
Phone: (804)-213-4466
Email: keith.russell@virginiaabc.com

Jennifer Wade, Assistant Director of IT Operations
7450 Freight Way
Mechanicsville, VA 23116
Phone: (804)-213-4511
Email: jennifer.wade@virginiaabc.com

4. **Solicitation Schedule:**

Event	Date
Release SOR	04/17/2023
Supplier Questions Due to CAI	04/28/2023
Supplier Response Due	05/12/2023
Award Decision	05/26/2023
Estimated Project Start Date	06/12/2023

5. **Evaluation and Scoring**
Supplier's Response must be submitted in the specified Statement of Work (SOW) format and will be evaluated for format compliance.

Supplier's Response will be evaluated for technical merit based on its appropriateness to the performance of Authorized User's requirements, its applicability to the environment, and its effective utilization of Supplier and Authorized User's resources.
6. **Project/Service:**
Virginia ABC IT Software Maintenance Stack Assessment
7. **Specialty Area (Check one):**

- ☐ Application Development
- ☐ Business Continuity Planning
- ☐ Business Intelligence
- ☒ Business Process Reengineering
- ☐ Enterprise Architecture
- ☐ Enterprise Content Management
- ☐ Back Office Solutions
- ☐ Geographical Information Systems

- ☐ Information Security
- ☐ IT Infrastructure
- ☐ IT Strategic Planning
- ☐ Project Management
- ☐ Public Safety Communications
- ☐ Radio Engineering Services
- ☐ IV&V Services

8. **Contract Type : Deliverable-based**

9. **Introduction:**

Project History

At Virginia ABC, maintenance and support for custom in-house developed software, primarily java based, is managed through the Bugs and Backlog (BnB) Portfolio. The Bugs and Backlog Portfolio includes 50 applications of various sizes (most are relatively small; a handful are on the larger side) and supports ~30-50 tickets a week for variably sized defects and enhancement requests. The BnB Portfolio also includes some projects, managed by a Business Systems Analyst (BSA). The BnB Portfolio structure has been in place for several years but has suffered under the strain of resource constraints and lack of clarity on what type, size and complexity of work should be handled through it as opposed to being run and managed as a project through the Project Management Office. More sizable work efforts can only be executed on a best-effort basis, leaving business stakeholders unclear as to when or if their requests will be fulfilled.

Given that all requests involving the need for software development assistance run through this maintenance area, it serves a critical function of keeping existing core systems up and running and in ensuring that accurate and timely data flows between legacy systems and newer-vendor managed platforms. As a result, new and/or modified structures and processes are needed to provide the ability to plan for, track, measure and report on the status of work flowing through the portfolio.

Business Need

The project's primary goal is to review the existing bugs and backlog operations to provide accurate documentation of the current state as well as to create a detailed roadmap of future state with recommendations and timeline.

Project Complexity

The complexity of the effort with the Bugs and Backlog stack involves unraveling years' worth of norms and practices that have morphed over time to accommodate the needs of such a broad audience of stakeholders and to accommodate the demands of an increasingly complex technical environment with multiple interdependencies while developing the much-needed future state to achieve the objective within the eight-week timeframe. While the Virginia ABC Authority has plans to slow down the throughput of work to allow team members to participate in the assessment, work cannot stop completely.

Project Management and Organizational Structure

This effort is not being run as a project through the project management office, but is being run through the IT division. The primary points of contact will be Keith Russell, Director of IT Operations and Jennifer Wade, Assistant Director of IT Operations. All coordination, requests, status reports and deliverables should be reviewed and made through/to the IT points of contact.

10. **Scope of Work:**

This SOR defines the services required by Authorized User in support of the Project/Service.

The bugs and backlog operation is the primary mechanism by which the agency maintains and enhances applications to maintain day to day support of all departments.

A. Part One - Assessment

The assessment portion of the initiative will include an evaluation of the following:

1. Current operational support model for in-house developed applications through the Bugs and Backlog (BnB) portfolio.
2. Current SDLC practices centered on:
 - Code management & deployment
 - Design & architecture reviews
 - Design & system documentation
 - Release management
3. Review of existing resources, skills & allocation
4. Catalog and review of current tools and usage

Required Deliverables:

1. Interview Results
2. Current state process definition
3. Prioritized list of gaps, pain points, risks & Issues

B. Part Two – Recommendations & Roadmap

The second part of the initiative will center around development of a target future state, accompanying list of recommendations and a suggested roadmap/framework for a plan for change implementation.

Required Deliverables:

1. New/updated operational support model for Bugs and Backlog
2. Recommended changes for policies, processes, standards & procedures for BnB, areas of the SDLC covered by the assessment, and resource allocation.
3. New/updated resource allocation matrix
4. New/updated skills matrix
5. Tool & usage recommendations
6. Recommendations for addressing existing resource and skill gaps.
7. Recommended roadmap that outlines sequencing, timeline, and approach to implementing recommended changes.

The supplier shall also reach out to the business departments that are supported by Bugs and Backlog Portfolio to gather an accurate picture of customer satisfaction with both the working groups and the business points of pain as well. Suggested interview points of contact are as follows:

- IT: 1 to 2 people each
 - Development
 - Business Systems Analysts (BSA)

- Quality Assurance (QA)
- Bugs and Backlog Administration
- Business Stakeholders: 3-4 people
- IT Leadership: 2 people

11. Period of Performance:

Delivery of all products and services defined in the Statement of Work will occur within 2 months of project execution date.

12. Place of Performance (Check one):

- ☐ Authorized User's Location
- ☐ Supplier's Location
- ☒ Authorized User's and/or
Supplier's Location

Ideally supplier would be on authorize user's location for the kick-off, when performing interviews and for critical review milestones unless agreement is reached that all work can and should be performed completely remote due to location, nature of work, etc.

13. Project Staffing

a. Supplier Personnel

The roles listed in the table below represent the minimum Supplier personnel requirements for this engagement.

Role	Key Personnel (Y/N)	Years of Experience	Certifications	References Required (Y/N)
Lead/Portfolio SME	Y	10		
Portfolio Process SME (Support)	Y	10		
DevOps Lead	Y	10		

b. Authorized User Staff

The roles listed in the table below represent Authorized User's staff and the estimated time each will be available to work on the project.

Role	Description	% Project Availability
Work Effort Coordinator	Available for assistance with coordination, organization, and status reporting.	20%
IT Leadership Interviewees	Members of IT leadership available for interviews to provide insight into IT strategic and tactical goals in the software maintenance space.	10%
BnB IT Interviewees	Small group of IT resources who will participate in interviews during the assessment for the Bugs and Backlog Portfolio including members of the BSA,	20%

	QA, Development teams as well as the Bugs and Backlog Portfolio Manager and Coordinator.	
BnB Stakeholder Interviewees	Small group of business resources who will participate in interviews to provide insight into Bugs and Backlog current state and needs from a business stakeholder perspective.	10%

14. Milestones and Deliverables:

The minimum required milestones and deliverables, and the estimated completion date for each deliverable, are listed in the following table.

#	Milestone Event(s)	Deliverable(s)	Estimated Completion Date
1	Kick-off meeting	Presentation and meeting with all participants and stakeholders for the Bugs and Backlog portion of the work	Execution + 5 business days
2	Phase 1 - Interview Completion	Portfolio of all interviews conducted	Execution + 10 business days
3	Phase 1 - Current State Analysis	All deliverable outlined for Part A in the Scope of Work for Bugs and Backlog	Execution + 30 business days
4	Phase 1 - Future State Roadmap	All deliverable outlined for Part B in the Scope of Work for Bugs and Backlog	Execution + 60 business days
5	Phase 1 – Review and signoff	Authority to review and sign off on completed deliverables.	Execution + 60 business days

The Supplier should provide all deliverables in electronic form, using the following software standards (or lower convertible versions):

Deliverable Type	Format
Documents	Microsoft Word (docx)
Diagrams	Microsoft Visio and PDF
Presentations	Microsoft PowerPoint
Spreadsheets	Microsoft Excel

15. Travel Expenses (Check one):

- ☐ No travel will be required for this engagement
- ☒ Travel must be included in the total fixed price of the solution
While onsite visits for the kick-off and interviews would be ideal, travel is not required if the vendor is not local to the Richmond area.

16. Payment (Check all that apply):

- ☒ Payment made based on successful completion and acceptance of deliverables
- ☐ All payments, except final payment, are subject to a (XX)% holdback

17. Acceptance Criteria:

The Project Manager will have 10 business days from receipt of the deliverable to provide Supplier with the signed acceptance receipt.

Final acceptance of services provided under the SOW will be based upon (Check one):

☐ User Acceptance Test

Acceptance Criteria for this solution will be based on a User Acceptance Test (UAT) designed by Supplier and accepted by Authorized User. The UAT will ensure that all of the functionality required for the solution has been delivered. The Supplier will provide the Authorized User with a detailed test plan and acceptance checklist based on the mutually agreed upon UAT plan. This UAT plan checklist will be incorporated into the SOW.

☒ Final Report

Acceptance criteria for this solution will be based on a final report. In the SOW, Supplier and Authorized User will agree on the format and content of the report to be provided to Authorized User for final acceptance.

☐ Other (specify): _____

18. Project Roles and Responsibilities:

(Use this chart to define Authorized User versus Supplier responsibilities.)

Responsibility Matrix	Supplier	Authorized User
Kick Off Meeting	✓	
Conducting Interviews	✓	
Documentation	✓	
Project Communication	✓	✓
Review of Documentation		✓
Project Sign Off		✓

19. Criminal Background Checks and Other Security Requirements (Check all that are required):

☒ Standard CAI Required Background Check

☐ Agency Specific Background Check

(Please provide details surrounding agency specific background check and/or other security requirements).

20. Performance Bond (Check one):

☐ Required for (XXX)% of the SOW value

☒ Not Required

21. Reporting (Check all that are required):

☒ Weekly Status Update

The weekly status report, to be submitted by Supplier to Authorized User, should include: accomplishments to date as compared to the project plan; any changes in tasks, resources or schedule with new target dates, if necessary; all open issues or questions regarding the project; action plan for addressing open issues or questions and potential impacts on the project; risk management reporting.

☐ **Other(s)** (Specify)

22. Federal Funds (Check one):

☐ Project will be funded with federal grant money

☒ No federal funds will be used for this project

23. Training and Documentation:

a. Training is:

☐ Required as specified below

☒ Not Required

Training Requirements:

(Specify specific training requirements)

b. Documentation is:

☒ Required as specified below

☐ Not Required

Documentation Requirements:

Documentation is required as specified in the scope of work in section 10.

24. Additional Terms and Conditions:

The services to be provided are subject to the following additional provisions:

- a. Effective July 1, 2020, the Code of Virginia requires contractors with the Commonwealth who spend significant time working with or in close proximity to state employees to complete sexual harassment training. As a result of the new code, VITA and the Department of Human Resource Management (DHRM) are requiring that all contractors working through the CAI contract complete DHRM's "Preventing Sexual Harassment" training. This training is available as either a short video or a written transcript on the DHRM website: <https://www.dhrm.virginia.gov/public-interest/contractor-sexual-harassment-training>. The selected Supplier must agree that any assigned resource will complete the training.
- b. The selected Supplier must agree that any assigned resource will review and conform to the IT Contingent Labor Program (ITCL) Contractor Code of Conduct. The Code of Conduct can be reviewed on VITA's website at the following link:
<https://www.vita.virginia.gov/media/vitavirginiagov/supply-chain/pdf/Contingent-Worker-Code-of-Conduct.pdf>

(List any additional terms and conditions specific to this engagement)

25. Scheduled Work Hours:

Any on-premise visits should not occur before 9 AM and should end by 5 PM.

26. Facility and equipment to be provided by Authorized User:

None unless specific items are requested for use during on-premise visits such as guest wi-fi access and meeting room reservations.

**Compliance Checklist
SOW Appendix 2**

True	False	Statement	Explanation
X		This response meets all requirements specified in the SOR and SOW. If NO, then list any limitations, constraints, or qualifications to the requirements.	
X		The Total Cost includes all costs for providing the services proposed in the SOW Response. If "False", then list any other costs that the Requestor must acquire to accomplish the proposed SOW Response.	
X		The proposed cost includes the 6.25% MSP Fee. We understand that the Supplier will retain 6.25% of the total amount invoiced to the Authorized User.	
X		We nor any of our subcontractors are a party excluded from Federal Procurement and Non-procurement Programs.	
X		No portion of this effort will be subcontracted. If "False", then list each subcontractor and the portion of the work that each subcontractor will perform.	
X		No exceptions are taken to the terms and conditions contained in the SOW. If "False", please specify and explain any exceptions taken.	
X		We certify that any resource assigned to this SOW will complete DHRM's required "Preventing Sexual Harassment" training prior to beginning work. This training is available as either a short video or a written transcript on the DHRM website: https://www.dhrm.virginia.gov/public-interest/contractor-sexual-harassment-training	
X		We certify that any resources assigned to this SOW has reviewed and will comply with the requirements of the IT Contingent Labor Program Contractor Code of Conduct. https://www.vita.virginia.gov/media/vitavirginiagov/supply-chain/pdf/Contingent-Worker-Code-of-Conduct.pdf	

Subcontractor Personnel Qualifications and References

SOW Appendix 3

Qualifications for the personnel included as part of this SOW are listed below. These consultants are all full-time employees of the Supplier and are not sub-contractors. The skills and experience of these consultants is representative of the quality of resources employed by the Supplier. In the event that these resources are no longer available when the award decision is made, the Supplier will provide the Authorized User with options of comparable consultants for selection. Resumes for these resources follow this page.



Ryan Tarrant

Role: DevOps Lead

Certifications:

- Oracle Certified Associate, Java SE Programmer
- Certified SAE 4 DevOps Practitioner

Summary: Mr. Tarrant has over 12 years of experience in the IT field and has worked in a variety of roles to include Software Engineer/Developer, Analyst, Tester, and Software Developer Manager. He has experience in many programming languages, including Java, C++, C#, and Perl. Mr. Tarrant's ability to take on dynamic roles has grown his knowledge across many platforms, operating systems, and tools. He has developed models and simulations, middleware services, standalone system applications, and android applications. Ryan's most recent focus has been to grow the thought leadership within Services and API's service offering at CapTech and engage others with this growth.

Recent / Relevant Work Experience:

Pipeline Engineer, Fortune 500 Telecommunications & Media Company:

As part of the DevSecOps team, Mr. Tarrant worked with development teams to integrate security scanning tools into their existing DevOps pipeline. To support the variety of development teams, Ryan worked with a multitude of tech stacks implementing the solution that worked best for each team. This included ongoing support for teams, exploring alternative methods for the variety of pipelines, and improving tools used by the DevSecOps and other development teams. One of Ryan's foci in the first 6 months had been providing a tool migration to AWS platform using Terraform to implement IaC for the scanning tools. Ryan implemented a Concourse pipeline for the Terraform plan for more consistent changes while working with other Pipeline engineers in the AWS migration.

Software Engineer, A Leading US Credit Union:

Mr. Tarrant worked as part of a team developing and enhancing web services that provide mobile banking experience to customers through Android, iPhone, and Web applications. These RESTful (JSON over HTTP) and SOAP/WSDL/XML web services expose banking, authentication, and risk-based authentication functions to the enterprise. Mr. Tarrant also supported the content services platform leveraging Adobe Experience Manager (AEM) for providing content via RSS feeds used in the mobile web services. He also researched requirements for migrating the content and custom applications from AEM 5.6.1 to AEM 6.3.

The environment for these web services include IBM Websphere 7/8.5, IBM DB2 Database, Hibernate, JAXB, JAX-RS, JAX-WS, Jackson, and IBM Rational Application Developer (RAD).

Software Engineer, Top 10 US Bank

Mr. Tarrant implemented a file-watcher software solution for Client using Spring Batch, Spring Retry, Java 1.8, and REST Services. The file-watcher is a console program, run from a cron job, to read document pairs from a configurable directory and upload them to a database via a REST call. Mr. Tarrant utilized Spring Batch to handle large quantities of file pairs for a bulk upload utility, and Spring Retry to handle the REST service availability. The solution also included connecting to H2 and postgres databases

simultaneously for spring-boot and spring-batch, along with managing the spring configuration in java configuration classes. Mr. Tarrant created the software solution with Maven and managed the source code in github. The project was managed using scrum methodology with daily standups, frequent demos, and 3-week sprints. The storyboard and taskboard was managed in VersionOne. Mr. Tarrant was responsible for development, deployment, performance analysis, unit tests in JUnit, and documentation directly in GitHub throughout the project in a team environment.

Background:

CapTech Consulting

2016 – Present

Education:

Bachelors, Computer Science, LaSalle University

Masters, Computer and Information Science, University of Pennsylvania



Drew Bowman

Role: Engagement Lead and Process SME

Certifications:

- Certified Scrum Master (CSM)
- ITIL v3 Foundation Certification
- Six Sigma Green Belt

Summary: Mr. Bowman is a technical lead and manager experienced in IT Service Management, Project Management, Process Design, Process Improvement, and Business Intelligence and Report Development. He has led and worked on technical projects to implement and support enterprise cloud applications such as ServiceNow and Workday. He has led process improvement initiatives ranging from large-scale process redesign and implementations to streamlining small-group processes.

Recent / Relevant Work Experience:

Technical Analyst/Lead, Top 10 US Bank:

A Top 10 US Bank was looking to re-platform the application its legal team uses to review new laws and regulations that have been passed and determine their applicability to the organization. Mr. Bowman served as a technical analyst and project lead to develop the design for the new application. The team performed discovery, developed wireframes, performed usability studies to validate the design, developed a minimum viable product (MVP) backlog and high-level architecture for the new application. Mr. Bowman led client discovery sessions to assess the current state process, system capabilities, and pain points. He worked with designers to develop wireframes that provided an intuitive prototype of an interface that met customer requirements and desired functionality. He leveraged the wireframes, customer feedback, and requirements to develop a backlog of user stories and worked with customer stakeholders to ensure that the stories provided a comprehensive MVP.

Tech Project Lead, Fortune 500 Global Hotel Chain:

The program was initiated to replace the client's aging Sales CRM system utilized by the in-field sales force. The existing system was over 10 years old and would no longer support the needs of the business. Drew partnered with key stakeholders to develop the business case and cost justification for a flexible, custom built solution to drive sales force efficiency and reduce the administrative pain points associated with daily retail calls. After program mobilization, Drew collaborated with IS resources to establish the Program infrastructure and governance strategy. This included the development of the program organizational structure, scope and schedule management, communication and reporting processes and procedures, and financial tracking.

Tech Project Lead, Fortune 500 Electric Services Company

A Fortune 500 energy company wanted to migrate its existing incident management, service request, and on-call scheduling system from legacy applications to ServiceNow. This implementation included integration with a custom-built critical alerting system that

leveraged the on-call schedules for alerts. Led the successful implementation of incident management, service requests, a self-service portal through the service catalog, on-call scheduling and the necessary alerting integrations.

Background:

CapTech Consulting

2011 – Present

Education:

Bachelors, Business Administration/Management, James Madison University



Jonelle Levy

Role: Process Analyst

Certifications:

- Certified SAFe Product Owner/Product Manager (POPM)
- Certified Salesforce Administrator
- Workday Fundamentals

Summary: Jonelle specializes in business systems analytics with experience across various industries such as healthcare, finance, and energy. Her skill set includes the implementation, development, and configuration of skills for platform solutions such as Salesforce and Workday. Jonelle has experience in supporting client engagements with a focus on software implementation and development as well as enterprise data and process analytics. With over 8 years of industry experience, she spearheaded several projects that have led to streamlined business processes, increased efficiency, and enhanced profitability for clients.

Recent / Relevant Work Experience:

Technical Analyst, State University

Jonelle worked as a Technical Analyst supporting a university's Paralegal Certification Program to initiate and deploy a full data migration from the legacy Salesforce CRM platform to the newly acquired Slate platform. Throughout this engagement, Jonelle's responsibilities included gathering and crafting business requirements, maintaining and socializing risks and solutions, and providing technical support and expertise for all data extracts to guarantee ingestion into Slate CRM. Jonelle also scheduled and facilitated all client meetings and co-development of all technical documentation.

Business Systems Analyst, Organ Transplant Company

Jonelle worked as a Business Systems Analyst supporting an organ transplant company by conducting a process evaluation and root cause analysis (RCA) as a part of a federally mandated corrective action plan. At the conclusion of this engagement, she led two readout sessions with various audience members including C-suite executives and representatives Health Resources and Services Administration (HRSA) governing agency. As a direct quote from the HRSA Contract Owner, the findings "Meet what HRSA was hoping for and expecting". Throughout this engagement, Jonelle's responsibilities included creating various presentation decks to effectively communicate with the client including the project kickoff and project status. Jonelle was praised for developing relationships with key points of contact/stakeholders. She efficiently schedules and facilitates requirement and discovery sessions. For this engagement, she was the primary owner of a lengthy technical document, which included: general background information, a root cause analysis overview, a defined problem statement and analysis, a detailed impact analysis, a timeline of events, a high-level process overview, a detailed workflow process map, Ishikawa or fishbone diagram, formal recommendations for process improvement, and an organized library of supporting resources.

Business Systems Analyst, Forbes Global 2000 Oil Industry Company

Jonelle worked as a Business Systems Analyst for a major Gas and Oil Company. Throughout this engagement, Jonelle's responsibilities included crafting enterprise data definitions and drafting logical data models to facilitate business requirement discovery

sessions with business stakeholders. Within client discovery sessions, she used agile techniques to derive business requirements and draft user stories. To memorialize requirements captured, she authored a business requirements matrix document that housed the team's functional, logical, and technical business requirements. This template was adopted by other teams within our project due to the great feedback from the client.

Jonelle frequently engaged SMEs from the client to define enterprise data definitions, data lineage, business rules, and standards. She also created, defined, and documented data model standards with buy-in from the client's Data Architecture and Data Engineers. The data model deliverable that she produced included a master data entity matrix with a focus on business operations, geography, equipment, and production that was very well received by the client.

Background:

CapTech 2022-Present

Cigna 2021

Peach State Health Plan | Centene Corporation 2017-2021

Optum Care | United Health Group 2016-2017

Georgia Department of Human Services 2014-2016

Education:

Bachelors, University of South Florida

Masters, University of South Florida

Subcontractor Qualifications and References

SOW Appendix 4

CapTech has over 22 years' experience providing business and technical assessments, process change, enterprise data strategy, engineering, governance, analytics, and the associated change management work in both the public sector and Fortune 500 industries. Our over one thousand and one hundred (1,100) national, all onshore consultants have successfully supported hundreds of projects and bring high levels of expertise across our competencies. We distinguish ourselves from competitors by demonstrating respectful attention to our clients' culture and tailoring business solutions to their unique needs.

CapTech Overview

Founded in 1997, CapTech is a national Information Technology (IT) consulting firm specializing in the design, management, and integration of IT systems for some of the largest private sector businesses and government agencies in the country. We are a full-service consulting firm organized into four Practice Areas: Management Consulting (MC), Data & Analytics (D&A), Systems Integration (SI), and Customer Experience (CX).

At CapTech, we achieve business goals with technology solutions. Our mission is to provide the expertise, data, systems, and innovation that organizations need to excel in an increasingly technological world. Illustrated by our motto, "Others Talk, We Listen," our approach is technology-agnostic: we tailor technology solutions to align with each client's specific goals. Our numerous awards reflect our thought leadership and company culture and include Consulting® magazine's "Best Firms to Work For" Top 10 list every year since 2012, Inc. 5000 list for 13 years since 2002, Forbes magazine's "America's Best Management Consulting Firms" 2017-2021, "100 Best Internships," 2015-2021, and Top 5 "Best Consulting Internship" 2015-2021.

CapTech's clients include some of the most reputable brands in the United States and expand across state and local governments, utilities, retail and hospitality, financial services, consumer packaged goods, and many other industries.

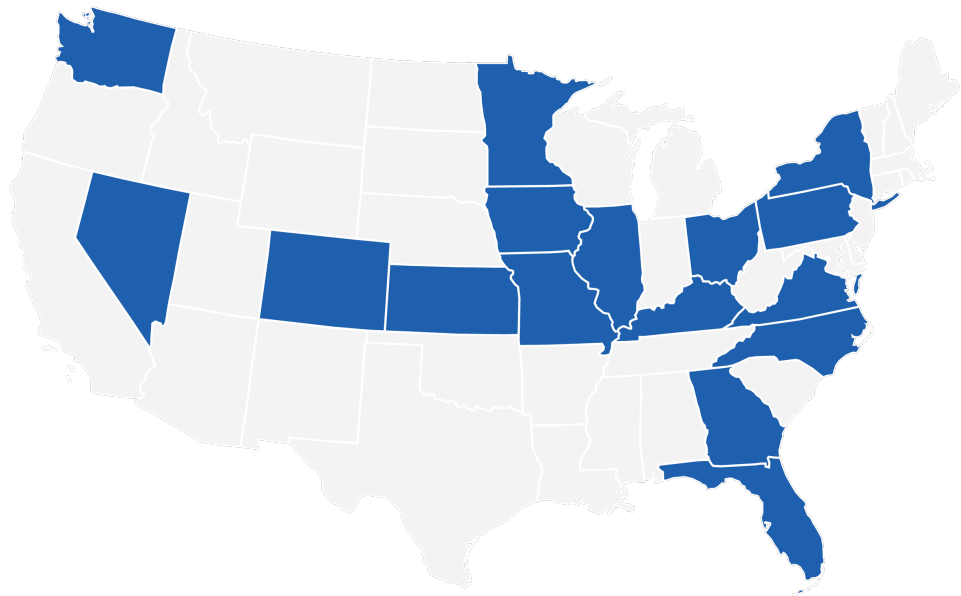
CapTech and Government Services

CapTech is a trusted partner and has a successful history working with state agencies to improve processes, modernize systems, and facilitate organizational changes. From small, strategic IT assessments to large-scale system modernization efforts, we design, develop, and manage technical and digital solutions that are intuitive, efficient, and transparent. We understand the unique information technology challenges that Government IT programs face, such as limited resources and budgets, legacy IT systems, paper-based processes, antiquated system maintenance, and complex regulations that make it difficult to meet constituent expectations.

CapTech is the partner that ABC needs due to our ability to quickly staff projects with the right talent, relevant public sector experience, and a long history of reliable delivery and successful performance in the public sector. We will provide the most value and benefits to ABC due to our key strengths, including:

- **Superior Project Mangers, Process Engineers, Strategists, and Analysts** who know what it means to transform systems within the state agencies and bring expertise in different practices and technologies
- **Public-Sector Expertise** with 30+ government agencies across 100+ projects, many in the Commonwealth of Virginia
- **Commercial Experience** which enhances the citizen-to-government engagement model by applying innovations and best practices from commercial clients
- **Change Management and Knowledge Transfer** strategies support successful change initiatives and stakeholder management throughout technology and data implementations

CapTech’s National Public Sector/Government Services Practice supports Agencies, Localities and Higher Education across the United States.



Colorado
A Denver-Metro Public School District

Florida
Hillsborough County

Georgia
Department of Behavioral Health and Development Disabilities

Illinois
Teachers' Retirement System

Iowa
Workforce Development

Kansas
Department of Labor

Kentucky
Department of Labor

Minnesota
Department of Labor and Industry
Minnesota IT Services

Missouri
Department of Labor and Industrial Relations

Nevada
Department of Industrial Relations

New York
Large Agency Systems Design and Development

North Carolina
Department of Information Technology
Department of Health and Human Services
Department of Transportation

Ohio
Ohio Public Retirement Systems
Central Ohio Transit Authority

Pennsylvania
Large Transportation Agency

Virginia
Alcoholic Beverage Control Authority
Department of Behavioral Health and Development Services
Department of Criminal Justice Services
Department of Forensic Science
Department of Medical Assistance Services
Department of Motor Vehicles
Department of Social Service
Department of Taxation
State Corporation Commission
Virginia Department of Health
Virginia Department of Transportation
Virginia Healthcare Foundation
Virginia Housing Development Authority
Virginia Information Technology Agency
Virginia Retirement System
Virginia State Police
Virginia Workers Compensation Commission

Washington
Labor & Industry

Figure 5: Public Sector Experience

Prior VA ABC Experience:

CapTech has experience supporting Virginia ABC and understands its business, systems, and culture. Among multiple projects on which CapTech and Virginia ABC have partnered is a comprehensive redesign and re-platforming of the public-facing website onto the Sitecore web content management system. CapTech performed extensive user research, analyzed current state content, developed a revised information architecture (IA), created user interaction and visual designs, executed formal usability validation, and supported the development of a content migration plan prior to implementing the Sitecore-based solution. The new Virginia ABC website (Figure 3) includes streamlined navigation, a modern look and feel, and a custom developed e-Commerce module for the ordering of select products.

CapTech's Customer Experience team met with dozens of Virginia ABC's employees across functions, customers, and industry partners to develop a comprehensive understanding of needs. Analysis of the existing website's content informed the development of a revised IA. Detailed user interface design included formal usability validation via a clickable prototype. In collaboration with Virginia ABC's Information Technology (IT) team, CapTech integrated the new website with existing systems to enable user functions such as the selection of a preferred store, inventory lookup, and online ordering for in-store pickup. Web Content & Collaboration workflows were defined and enabled to minimize dependency on IT for web content publishing while ensuring sufficient governance. We delivered extensive Web Content & Collaboration training based on participants' specific roles. Finally, we developed, tested, and deployed a fully responsive site that is equally usable and visually appealing across the entire spectrum of web-enabled devices.

The project achieved its objectives, including:

- Successfully delivered a new website marked by streamlined navigation, a modern look and feel, and a custom-developed ecommerce module for the ordering of select products.
- Dramatically improved the user experience for mobile web visitors by implementing a fully responsive design that adapts to the user's device.
- Increased user success rate on key tasks by approximately 10% via a more intuitive design.
- Reduced users' average duration for key tasks by approximately 33% via a more intuitive design.
- Provided advanced product inventory lookup functionality that communicates real-time inventory in a selected store and nearby stores.
- Enabled more efficient website management via a robust Web Content & Collaboration platform that reduces dependency on IT and production lead times while improving governance and audit capabilities.

As a result, the project won the 2015 Government Standard of Excellence and Shopping Standard of Excellence WebAward from the Web Marketing Association.

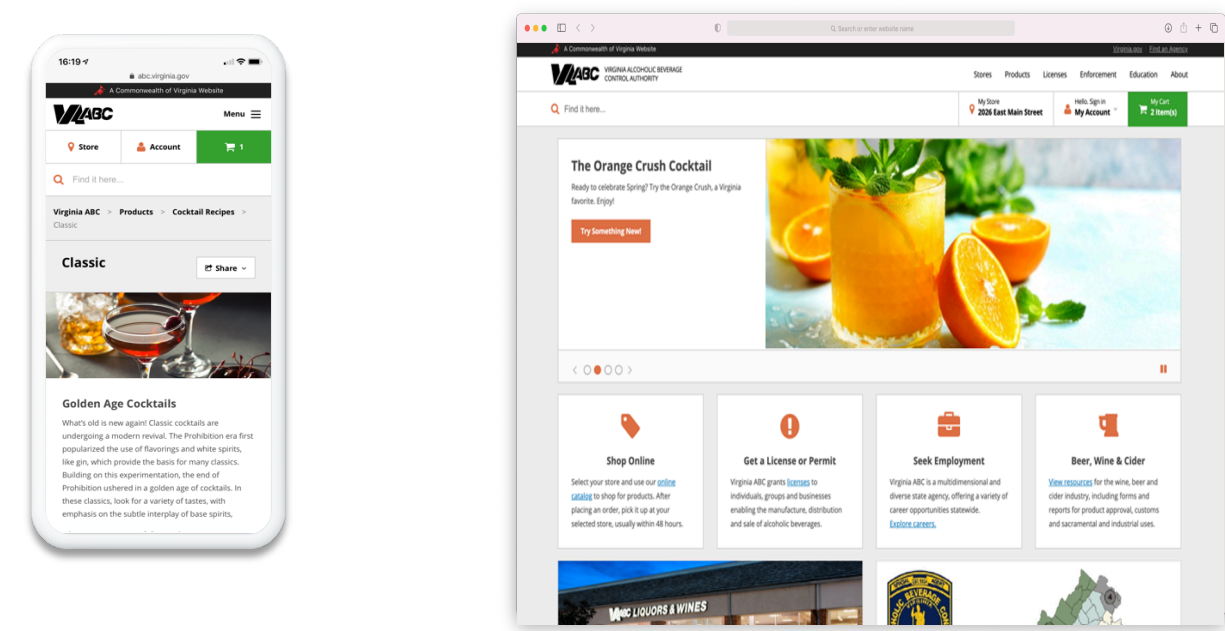


Figure 6: Sample of CapTech's Award Winning Work

Relevant State and Private Sector Experience

The table below summarizes some of our experiences on relevant and similar projects:

Past Performance	Performance Highlights
State of Minnesota: Department of Labor & Industry	Supplier provided business process reengineering to support efficiency and better customer self-service. In conjunction with requirements definition, the team conducted current and future-state business process analysis with unit leadership and line-level employees. We used this analysis to define future-state roles and processes that increase efficiency, reduce cycle times, and improve support to citizens and end-users.
State of Missouri: Department of Labor	Supplier delivered a current state analysis and business process reengineering services. We conducted a comprehensive assessment along with competitive state analysis and benchmarking, and business process reengineering program recommendations across all employment benefit, taxing, and reemployment services. Using this analysis, we designed future processes around integration of services designed to break down barriers, and this initiative served as the basis for modernization.

Past Performance

Performance Highlights

Top 10 U.S Bank

A top 10 US Bank needed to integrate the teller and back-office operations from an acquired bank into their existing system/operations infrastructure. CapTech was brought-in to stand-up, lead and support Program Planning & Management, Implementation & Integration Strategy, Risk & Issue Management, Change Management and External Vendor Management. CapTech's partnership for this complex acquisition and transformation resulted in:

- Established PMO and provided guidelines, processes, and support tools
- Successfully updated existing systems to support over 2,000 new regulatory and business process requirements
- Rolled out updated software/hardware to over 400 branches
- Trained over 8,000 associates on the updated systems and related processes
- Program delivered on-time and under budget (\$52 million)
- Created a program playbook to guide all future acquisition integrations

State of Washington, Department of Labor & Industries (WA L&I)

Approaches and tools:

Over the past five years, CapTech has been a key partner to Washington L&I, central to several business transformation efforts and enterprise-wide initiatives. We also provide strategic and operational-level change management support to several ongoing initiatives. A few example engagements include:

Workers' Compensation Systems Modernization Program Management: CapTech provided the program management and infrastructure for the \$300 million Workers' Compensation Systems Modernization program. Our services included program management, risk management, project management for three projects, and organizational change management. CapTech was responsible for developing the governance and reporting infrastructure and engaging with key stakeholders.

Enterprise Data Strategy: In anticipation of the requirements of the new workers' compensation system, L&I's leadership partnered with CapTech to conduct a detailed assessment of L&I's data landscape and to provide a comprehensive Enterprise Data Strategy. CapTech reviewed 42 systems, 50 interfaces, over 700 data-driven reports, and conducted over 200 interviews. CapTech provided L&I with integrated business, functional, and technical data priorities and laid out a data maturity playbook that will allow L&I to progress forward in data maturity.

Public Website Redesign: L&I asked CapTech to redesign its public-facing website to modernize its 10-year-old design. CapTech conducted user studies, redesigned the site's information architecture, stood up a governance committee and processes, provided a mobile-friendly design and accessible user interface. The redesign resulted in a significantly increased navigation success rate (29%), an increased task success rate (7%).

Organizational Change Management: Our relationship with WA L&I started with a culture and change readiness assessment for the overall Business Transformation effort. Leveraging the results of this assessment, CapTech partnered with L&I to create an enterprise-wide organizational change management strategy and capability and assisted in the formation of an enterprise-level organizational change readiness office. CapTech has also led project-level organizational change management for several successful initiatives, including two phases of Website Redesign, the implementation of the Enterprise Data Governance Framework, establishment of a new Vocational Recovery Program, COVID-19 employee support, and hybrid operations planning.

Past Performance

Performance Highlights

Leading U.S. Credit Union

Current State Business Process Analysis: A global financial services firm needed to document existing business processes to achieve a detailed understanding of the existing operations. CapTech partnered with the credit union to perform current state process analysis focused on processes within a division that manages flow of funds into the branch via the Automated Clearing House (ACH) transmission from the Fed and physical checks.

The results of the effort included:

- Achievement of desired transparency operations to prepare for upcoming financial audit
- Documented over 125 processes using BPMN
- Developed supporting task details, data, and systems metadata for each process
- Created an advanced content management system for viewing process models and supporting details

Top US Bank

Determining Vision for Product Creation and Release: This client reimagined supplier relationship management by building next generation foundational software platforms and tools being used internally, engaging CapTech to support their goal of commercializing the solution. Our team focused on understanding the market, developing a digital strategy MVP roadmap, and identifying additional features to create a best-in-class commercial offering. The results included:

- A comparative/competitive analysis of 25 industry leaders uncovered gaps in the market and identified differentiators in the application.
- Business archetypes built from survey findings highlighted user goals and motivations.
- Prioritized list of features, actionable recommendations, and next steps helped define the MVP experience.
- A business case and value statement informed by research findings was shared with executive decision makers.

Table 7: Relevant State and Private Sector Experience