



# Stage 2 Alternative Analysis

California Department of Technology, SIMM 19B.2 (Rev. 2.5, July/2021)

## 2.1 General Information

Agency or State Entity Name: Corrections and Rehabilitation

If agency/entity not in list then enter here. [Click or tap here to enter text.](#)

Organization Code: 5225

Proposal Name: [Incarcerated Persons Tracking](#)

Department of Technology Project Number (0000-000): [5225-175](#)

Preliminary Submittal Information

Removed. Stage 2 Preliminary Assessment information moved to Stage 1 Business Analysis, Section 1.10.

## 2.2 Section Left Intentionally Blank

## 2.3 Section Left Intentionally Blank

## 2.4 Submittal Information

### Contact Information

Contact First Name: Jeff

Contact Last Name: Funk

Contact Email: [jeffrey.funk@cdcr.ca.gov](mailto:jeffrey.funk@cdcr.ca.gov)

Contact Phone: (916) 358-2117

**Submission Date:** [Click or tap to enter a date.](#)

**Project Approval Executive Transmittal** ([attach file to your email submission.](#))

**Submission Type:** New Submission

If Withdraw, select Reason: [Choose an item.](#)

If Other, specify reason here: [Click or tap here to enter text.](#)

### **Sections Updated**

**Sections Changed** (List all the sections that have been updated.)

[Click or tap here to enter text.](#)

**Summary of Changes** (Summarize updates made.)

[Click or tap here to enter text.](#)

### **Condition (s) from Previous Stage(s)**

Condition #: [Click or tap here to enter text.](#)

Condition Category: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Condition Sub-Category: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Condition: [Click or tap here to enter text.](#)

Assessment: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Agency/State Entity Response: [Click or tap here to enter text.](#)

Status: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

**NOTE:** Use **Ctrl+c** and **Ctrl+v** to copy and paste as needed throughout the template.

## 2.5 Baseline Processes and Systems

**2.5.1 Description** [Click or tap here to enter text.](#) Currently, the California Department of Corrections and Rehabilitation (CDCR) is charged with oversight of the state's incarcerated persons population. For this reason, in addition to the recent court orders (Armstrong v Newsom), the CDCR is taking proactive measures to ensure CDCR's institutions and services are in compliance with the American Disabilities Act (ADA) to meet the needs of the incarcerated population statewide. As such, CDCR must implement a solution able to electronically capture information during surveys or inspections to track, monitor, and report incidents and issues of non-compliance for expedient resolution.

Currently, staff at six (6) CDCR institutions use the ArcGIS Survey123 (Survey123) web application to track ADA compliance. The web application consists of a web form to enter the survey results, results are stored in a CDCR server, and a portal where CDCR staff can view a dashboard of the results of the inspections, similar to a Tableau dashboard. In 2021, CDCR staff recorded at the six (6) institutions a total of 21,147 ADA inspection results using Survey123. The six institutions are Richard J. Donovan Correctional Facility; Correctional Institution for Women; California State Prison, Corcoran; Kern Valley State Prison; California State Prison, Los Angeles County; and the Substance Abuse Treatment Facility and State Prison, Corcoran.

The remaining 28 institutions currently do not have a method or process to track ADA compliance. Additionally, because CDCR does not have the data to support its ADA compliance, data is not readily available for ongoing review of outstanding issues and resolutions or responses to the court and plaintiff attorneys, leaving CDCR vulnerable with the lack of ability to prove compliance.

The current process provides the ability to collect data manually, but due to the labor intensive nature of the current process, staff have difficulty retrieving data to provide accurate and complete, near real-time information for a variety of internal and external auditing and reporting purposes (e.g. legislative reports, plaintiff auditing, stakeholder requests for data compliance monitoring). Institutions utilizing the Survey123 solution can provide near real-time information, however the solution is not scalable to support other CDCR requirements to track other types of services. Furthermore, Survey123 cannot be integrated with Azure Active Directory and other CDCR systems including the Strategic Offender Management System (SOMS) to present incarcerated person information and automate facility identification information. The implementation of the proposed solution to address its current surveying and monitoring needs, but also be scaled to address other business problems or opportunities to improve efficiency and compliance.

## 2.5.2 Business Process Workflow

(Attach file to the email submission.) See Business Process Workflow – InPT.vsdX

## 2.5.3 Current Architecture Information

### Business Function/Process(es)

**Application, System, or Component:** ArcGIS Survey123

COTS, MOTS, or Custom: COTS

Name/Primary Technology: Survey123/ESRI

### Runtime Environment

Cloud Computing Used: No

If “Yes,” specify: [Choose an item.](#)

Server/Device Function: FDCGISPORTAL Stores all Survey123 records

Hardware: Server class machine, Quad Core processor, 24 GB memory, 200 GB hard drive

Operating System: Windows Server 2016

System Software: ArcGIS Survey 123

**System Interfaces:** ArcGIS Survey123 web portal and FDCGISPORTAL

**Data Center Location:** State data center operated by CDT

If Other, specify: [Click or tap here to enter text.](#)

### Security

**Access:** (answer Yes or No to all choices)

Public: No

Internal State Staff: Yes

External State Staff: Yes

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**Type of Information** (answer Yes or No to all choices)

Personal: No

Health: Yes

Tax: No

Financial: No

Legal: No

Confidential: No

Other: Yes Specify: Facility information

**Protective Measures** (answer Yes or No to all choices)

Technical Security: Yes

Physical Security: Yes

Backup and Recovery: Yes,

Identity Authorization and Authentication: No

Other, specify: [Click or tap here to enter text.](#)

**Data Management**

Data Owner Name: Connie Gipson

Data Owner Title: Director

Data Owner Business Program: Division of Adult Institutions (DAI)

Data Custodian Name: Charanjit Gill

Data Custodian Title: Information Technology Manager II

Data Custodian Business Program: EIS Enterprise Data Systems (EDS)

**2.5.4 Current Architecture Diagram**

(Attach Current Architecture Diagram to the email submission.) See Current Architecture Diagram – InPT.vsd

**2.5.5 Security Categorization Impact Table**

(Attach Security Categorization Impact Table to the email submission.)

See Security Categorization Impact Table – InPT.xlsx

**SECURITY CATEGORIZATION IMPACT SUMMARY**

Confidentiality: Low

Integrity: Medium

Availability: Low

## 2.6 Mid-Level Solution Requirements

(Attach Mid-Level Solution Requirements to the email submission.) See B\_3\_Midlevel\_Solution\_Requirements – InPT.xlsx

## 2.7 Assumptions and Constraints

**Assumptions/Constraints:** Project funding will remain available throughout the project lifecycle.

**Description/Potential Impact:** Changes to project funding will impact the ability to meet deadlines and/or may require change to the established deadline.

**Assumptions/Constraints:** Division of Adult Institutions (DAI) staff will utilize the solution to actively conduct audits to monitor ADA compliance and report outcomes.

**Description/Potential Impact:** Consistent auditing and reporting is required to successfully meet business objectives.

**Assumptions/Constraints:** Project resources are available and engaged in project activities including user testing.

**Description/Potential Impact:** The resources required for this project are available in a timely manner and are engaged in project activities for a successful and timely deployment.

## 2.8 Dependencies

**Dependency Element:** Creation of application programming interfaces to SOMS.

**Dependency Description:** Application interface is necessary to SOMS to present near real-time data for accurate data collection and reporting.

**Dependency Element:** Interface with Active Directory is established.

**Dependency Description:** Authentication will be managed through CDCR's Active Directory.

## 2.9 Market Research

### 2.9.1 Market Research Methodologies/Timeframes

#### Methodologies Used to Perform Market Research

Request for Information (RFI): No

Internet Research: Yes

Vendor Forums/Presentation: Yes

Trade shows: No

Published Literature: Yes

Leveraged Agreements: No

Collaboration with other Agencies/state entities or governmental entities: No

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**Time spent conducting market research:** Over 1 Year

**Date market research was started:** 4/21/2020

**Date all market research was completed:** 9/30/2021

**2.9.2 Results of Market Research:** Market research for this solution was conducted by CDCR Enterprise Information Services (EIS) management, business analysts, programmers, and architects, and DAI and Division of Rehabilitative Programs (DRP) SMEs. The team performed research on the internet to determine what commercially available Commercial Off The Shelf (COTS) Software as a Service (SaaS) solutions were available for surveying and tracking facility and incarcerated persons activities and property. Research performed resulted in identification of multiple commercially available and viable solutions. The team coordinated vendor demonstrations from potential provider solutions and reviewed their capabilities, scalability, ease of use, compliance to Information Technology (IT) standards & security, and data presentation for analysis. In addition, the team performed research to determine how viable it would be to design and develop a custom Progressive Web Application (PWA) solution using existing Middle Tier and Progressive Web Application framework by the EIS Offender Management mobile application team. The team determined that the most efficient path to meet the objectives for the business was to design and develop a custom PWA solution.

## 2.10 Alternative Solutions

**2.10.1A Solution Type (Recommended or Alternative):** Alternative

**2.10.2A Name:** Implement a COTS solution in a SaaS environment.

**2.10.3A Description:** Procure a COTS/SaaS solution that incorporates a web-based portal enabling role-based users to collect and view survey/tracking data. This alternative can potentially meet all of CDCR's requirements, however the procurement timeline to implement may not meet CDCR's desired timeline.

**Approach (Answer Yes or No to all choices):**

Increase staff – new or existing capabilities: Yes

Modify the existing business process or create a new business process: Yes

Reduce the services or level of services provided: No

Utilize new or increased contracted services: Yes

Enhance the existing IT system: No

Create a new IT system: Yes

Perform a business-based procurement to have vendors propose a solution: No

Other: [Choose an item](#). Specify: [Click or tap here to enter text](#).

**2.10.4A Benefit Analysis**

**Benefits/Advantages:** COTS/SaaS leverages a ready-made platform, which has already been implemented and tested by the provider. Most modifications would be configurations with little to no specialized coding required.

**Benefits/Advantages:** Access is managed by the service through an interface with CDCR's Active Directory, so there is no need to setup a Demilitarized Zone (DMZ) and maintain firewall rules. The solution would meet all security protocols set forth in the State Administrative Manual (SAM), Statewide Information Management Manual (SIMM), and National Institute of Standards and Technology (NIST).

**Benefits/Advantages:** The solution will be fully hosted in an approved Cloud data center, therefore the cost of internal resources to support the application will be very low compared with other alternatives.

**Benefits/Advantages:** The solution leveraging SaaS will obtain the best value for the funds expended and provide scalability as demand increases.

**Benefits/Advantages:** The addition of a new Incarcerated Persons Tracking (InPT) Tracking solution will increase staff headcount because CDCR is deploying a new system, however implementing a COTS/SaaS solution will have the smallest increase to CDCR staff resources when compared to other alternatives.

**Disadvantages:** The solution may require the Department to modify current or implement new processes.

**Disadvantages:** The solution may require higher software costs to maintain and license because the solution is an out-sourced SaaS solution.

**Disadvantages:** The solution may require longer to implement because of the procurement process.

### **Anticipated Time to Achieve Objectives After Project Go-Live**

(Choose one: Within 1 Year, 2 Years, 3 Years, 4 Years, Over 4 Years)

**Objective Number: 1.1 Objective Timeframe** 2 years

**Objective Number: 1.2 Objective Timeframe** 3 years

### **Anticipated Time to Achieve Financial Benefits after Project Go-Live**

Increased Revenues: [Choose an item.](#)

Cost Savings: [Choose an item.](#)

Cost Avoidance: 2 years

Cost Recovery: [Choose an item.](#)

### **2.10.5A Assumptions and Constraints**

(List the assumptions and constraints, and describe the impact to the project):

In order to improve efficiency, the new solution is assumed to pull data from SOMS. EIS resources will be required to create the necessary data interfaces to SOMS. The creation of data interfaces will need to be accounted for in the project schedule. EIS has created many data interfaces to SOMS for other similar applications using Representational State Transfer (REST) application programming interface (API) technology. Once the data interfaces are completed, the solution can be configured and tested.

Staff using the new solution shall acquire initial solution training in a Train-the-Trainer method from the vendor. Subsequent solution and business process training will be provided by CDCR staff.

Institution facility data can be automatically imported into the new solution and configuration for each institution is standard. If data cannot be automatically configured, implementation of each institution will be customized which will require a phased rollout to all institutions.

Staff has the necessary mobile devices to access the new solution and to be able to enter or scan data into the new solution.

Staff schedules at the institutions support user testing and training on the new solution.

## 2.10.6A Implementation Approach

### Identify the type of existing IT system enhancement or new system proposed

(Answer Yes or No for each)

Enhance the current system: No

Develop a new custom solution: No

Purchase a Commercial off-the-Shelf (COTS) system: No

Purchase or obtain a system from another government agency (Transfer): No

Subscribe to a Software as a Service (SaaS) system: Yes

Other: [Choose an item](#). Specify: [Click or tap here to enter text](#).

### Identify cloud services to be leveraged (Answer Yes or No for each)

Software as a Service (SaaS) provided by OTech: No

Software as a Service (SaaS) provided by commercial vendor: Yes

Platform as a Service (PaaS) provided by OTech: No

Platform as a Service (PaaS) provided by commercial vendor: No

Infrastructure as a Service (IaaS) provided by OTech: No

Infrastructure as a Service (IaaS) provided by commercial vendor: No

If no cloud services will be leveraged by this alternative, provide a justification of why cloud services are not being leveraged: [Click or tap here to enter text.](#)

**Identify who will modify the existing system or create the new system** (Select Yes or No for each):

Agency/state entity IT staff: Yes

A vendor will be contracted: Yes

Inter-agency agreement will be established with another governmental agency. No

Specify agency name(s): [Click or tap here to enter text.](#)

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**Identify the implementation strategy:**

All requirements will be addressed in this proposed project in a single implementation. Yes

Requirements will be addressed in incremental implementations in this proposed project. No

Some requirements will be addressed in this proposed project. The remaining requirements will be addressed at a later date: No

Specify the year when the remaining requirements will be addressed: N/A

**Identify if the technology for the proposed project will be mission critical and public facing:**

The technology implemented for this proposed project will be considered mission critical and public facing. No

### **2.10.7A Architecture Information**

**Business Function/Process(es):** Internal facing web-based application

**Application, System, or Component:** Incarcerated Persons Tracking (InPT)

**COTS, MOTS, or Custom:** COTS

Name/Primary Technology: No code/low code application that incorporates scanning technology with barcodes and/or near-field communication.

**Runtime Environment**

Cloud Computing Used: Yes

If “Yes,” specify: SaaS - Software as a Service

Server/Device Function: TBD

Hardware: TBD

Operating System: TBD

System Software: TBD

**System Interfaces:** SOMS

**Data Center Location:** Commercial data center

If Other, specify: [Click or tap here to enter text.](#)

**Security**

**Access:** (answer Yes or No to all choices)

Public: No

Internal State Staff: Yes

External State Staff: No

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**Type of Information** (answer Yes or No to all choices)

Personal: [Choose an item.](#)

Health: Yes

Tax: [Choose an item.](#)

Financial: [Choose an item.](#)

Legal: [Choose an item.](#)

Confidential: [Choose an item.](#)

Other [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**Protective Measures** (answer Yes or No to all choices)

Technical Security: Yes

Physical Security: [Yes](#)

Backup and Recovery: Yes

Identity Authorization and Authentication: Yes

Other, specify: [Click or tap here to enter text.](#)

### **Data Management**

Data Owner Name: Connie Gipson

Data Owner Title: Director

Data Owner Business Program: Division of Adult Institutions

Data Custodian Name: Charanjit Gill

Data Custodian Title: Technology Manger II

Data Custodian Business Program: EIS Enterprise Data Systems (EDS)

**2.10.1B Solution Type (Recommended or Alternative):** Alternative

**2.10.2B Name:** Implement Survey123 solution to all institutions.

**2.10.3B Description:** Implement the existing Survey123 solution that incorporates a web-based portal enabling role-based users to collect and view survey/tracking data. This alternative provides the ability to meet some the CDCR's requirements, however this solution does not provide any growth or scalability to address CDCR's future tracking needs.

**Approach (Answer Yes or No to all choices):**

Increase staff – new or existing capabilities: Yes

Modify the existing business process or create a new business process: Yes

Reduce the services or level of services provided: No

Utilize new or increased contracted services: Yes

Enhance the existing IT system: Yes

Create a new IT system: No

Perform a business-based procurement to have vendors propose a solution: No

Other: [Choose an item](#). Specify: [Click or tap here to enter text](#).

**2.10.4B Benefit Analysis**

**Benefits/Advantages:** Using the current Survey123 solution would allow for implementation to occur quickly at institutions.

**Benefits/Advantages:** Training can be leveraged from staff from any of the 6 institutions already running the solution.

**Benefits/Advantages:** The solution may over time be cheaper to develop and maintain with EIS staff.

**Disadvantages:** The solution is manual and cannot be integrated with SOMS data.

**Disadvantages:** The solution does not integrate with Azure Active Directory for identity management.

**Disadvantages:** The solution does not have the ability to grow and scale for other incarcerated tracking needs.

**Disadvantages:** The solution does not meet any of the CDCR's desired business requirements.

**Disadvantages:** Facility information from SOMS must be manually entered into the solution making configuration for each institution difficult.

### **Anticipated Time to Achieve Objectives After Project Go-Live**

(Choose one: Within 1 Year, 2 Years, 3 Years, 4 Years, Over 4 Years)

**Objective Number:** 1.1 **Objective Timeframe** Within 1 year

**Objective Number:** 1.2 **Objective Timeframe** 2 years

### **Anticipated Time to Achieve Financial Benefits after Project Go-Live**

Increased Revenues: [Choose an item.](#)

Cost Savings: [Choose an item.](#)

Cost Avoidance: **2 years**

Cost Recovery: [Choose an item.](#)

### **2.10.5B Assumptions and Constraints**

(List the assumptions and constraints, and describe the impact to the project):

Staff using the new solution shall acquire training and support in a timely manner from EIS staff.

Institution facility data will be manually imported/configured into the new solution and configuration for each institution is standard.

Staff has the necessary mobile devices to access the new solution and to be able to enter or scan data into the new solution.

Staff schedules at the institutions support user testing and training on the new solution.

## **2.10.6B Implementation Approach**

### **Identify the type of existing IT system enhancement or new system proposed**

(Answer Yes or No for each)

Enhance the current system: Yes

Develop a new custom solution: No

Purchase a Commercial off-the-Shelf (COTS) system: No

Purchase or obtain a system from another government agency (Transfer): No

Subscribe to a Software as a Service (SaaS) system: No

Other: [Choose an item](#). Specify: [Click or tap here to enter text](#).

### **Identify cloud services to be leveraged (Answer Yes or No for each)**

Software as a Service (SaaS) provided by OTech: No

Software as a Service (SaaS) provided by commercial vendor: No

Platform as a Service (PaaS) provided by OTech: No

Platform as a Service (PaaS) provided by commercial vendor: No

Infrastructure as a Service (IaaS) provided by OTech: No

Infrastructure as a Service (IaaS) provided by commercial vendor: No

If no cloud services will be leveraged by this alternative, provide a justification of why cloud services are not being leveraged: Implementing the current Survey123 solution will not leverage cloud services because the solution will leverage existing CDCR EIS architecture.

**Identify who will modify the existing system or create the new system (Select Yes or No for each):**

Agency/state entity IT staff: Yes

A vendor will be contracted: Yes

Inter-agency agreement will be established with another governmental agency. No

Specify agency name(s): [Click or tap here to enter text.](#)

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**Identify the implementation strategy:**

All requirements will be addressed in this proposed project in a single implementation. No

Requirements will be addressed in incremental implementations in this proposed project. Yes

Some requirements will be addressed in this proposed project. The remaining requirements will be addressed at a later date: Yes

Specify the year when the remaining requirements will be addressed: 2023-2025

**Identify if the technology for the proposed project will be mission critical and public facing:**

The technology implemented for this proposed project will be considered mission critical and public facing. No

**2.10.7B Architecture Information**

**Business Function/Process(es):** Internal facing web-based application

**Application, System, or Component:** Survey123 – Armstrong Compliance Survey v1.3

**COTS, MOTS, or Custom:** Custom

Name/Primary Technology: ArcGIS Survey123 platform

**Runtime Environment**

Cloud Computing Used: Yes

If “Yes,” specify: SaaS - Software as a Service

Server/Device Function: **FDCGISPORTAL**

Hardware: Portal Server, Applications Server, Windows Server

Operating System: Windows Server 2012 & 2016

System Software: IIS and SQL Server 2016

**System Interfaces:** Esri Cloud

**Data Center Location:** State data center operated by CDT

If Other, specify: [Click or tap here to enter text.](#)

### Security

**Access:** (answer Yes or No to all choices)

Public: No

Internal State Staff: Yes

External State Staff: Yes

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**Type of Information** (answer Yes or No to all choices)

Personal: [Choose an item.](#)

Health: Yes

Tax: [Choose an item.](#)

Financial: [Choose an item.](#)

Legal: [Choose an item.](#)

Confidential: [Choose an item.](#)

Other [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**Protective Measures** (answer Yes or No to all choices)

Technical Security: Yes

Physical Security: Yes

Backup and Recovery: Yes

Identity Authorization and Authentication: Yes

Other, specify: [Click or tap here to enter text.](#)

### Data Management

Data Owner Name: Connie Gipson

Data Owner Title: Director

Data Owner Business Program: Division of Adult Institutions

Data Custodian Name: Charanjit Gill

Data Custodian Title: Technology Manger II

Data Custodian Business Program: EIS Enterprise Data Systems (EDS)

**2.10.1C Solution Type (Recommended or Alternative):** Recommended

**2.10.2C Name:** Design and develop a custom Progressive Web Application (PWA).

**2.10.3C Description:** Design and develop a custom solution that incorporates a web-based portal enabling role-based users to collect and view survey/tracking data. This is the only alternative that provides the ability to meet the CDCR's requirements and would require the shortest time to implement.

**Approach (Answer Yes or No to all choices):**

Increase staff – new or existing capabilities: Yes

Modify the existing business process or create a new business process: Yes

Reduce the services or level of services provided: No

Utilize new or increased contracted services: Yes

Enhance the existing IT system: Yes

Create a new IT system: Yes

Perform a business-based procurement to have vendors propose a solution: No

Other: [Choose an item](#). Specify: [Click or tap here to enter text](#).

**2.10.4C Benefit Analysis**

**Benefits/Advantages:** A custom solution would allow the business to develop web screens and capability to customize to exactly what they want.

**Benefits/Advantages:** The solution will be fully hosted in the EIS Middle Tier, which is utilizing existing hardware and architecture.

**Benefits/Advantages:** The solution can leverage existing integrations between SOMS data and other applications in the Middle Tier.

**Benefits/Advantages:** The solution will be designed and developed following the Agile process, therefore allowing application features to be deployed to the business in iterations. This makes this the only alternative that would prioritize CDCR's needs and timeline.

**Disadvantages:** The solution will require additional resources to maintain and upgrade over time.

**Disadvantages:** The solution will require dedicated support staff over time.

**Anticipated Time to Achieve Objectives After Project Go-Live**

(Choose one: Within 1 Year, 2 Years, 3 Years, 4 Years, Over 4 Years)

**Objective Number:** 1.1 **Objective Timeframe** Within 1 year

**Objective Number:** 1.2 **Objective Timeframe** 2 years

**Anticipated Time to Achieve Financial Benefits after Project Go-Live**

Increased Revenues: [Choose an item.](#)

Cost Savings: [Choose an item.](#)

Cost Avoidance: **2 years**

Cost Recovery: [Choose an item.](#)

**2.10.5C Assumptions and Constraints**

(List the assumptions and constraints, and describe the impact to the project):

In order to improve efficiency, the new solution is assumed to pull data from SOMS. EIS resources will be required to create the necessary data interfaces to SOMS. The creation of data interfaces will be accounted for in the project schedule. EIS has created many data interfaces to SOMS for other applications using REST API technology. Once the data interfaces are completed, the solution can be configured and tested.

Staff using the new solution shall acquire training and support in a timely manner from EIS staff.

Institution facility data can be automatically imported into the new solution and configuration for each institution is standard.

Staff has the necessary mobile devices to access the new solution and to be able to enter or scan data into the new solution.

Staff schedules at the institutions support user testing and training on the new solution.

## 2.10.6C Implementation Approach

### Identify the type of existing IT system enhancement or new system proposed

(Answer Yes or No for each)

Enhance the current system: No

Develop a new custom solution: Yes

Purchase a Commercial off-the-Shelf (COTS) system: No

Purchase or obtain a system from another government agency (Transfer): No

Subscribe to a Software as a Service (SaaS) system: No

Other: [Choose an item](#). Specify: [Click or tap here to enter text](#).

### Identify cloud services to be leveraged (Answer Yes or No for each)

Software as a Service (SaaS) provided by OTech: No

Software as a Service (SaaS) provided by commercial vendor: No

Platform as a Service (PaaS) provided by OTech: No

Platform as a Service (PaaS) provided by commercial vendor: No

Infrastructure as a Service (IaaS) provided by OTech: No

Infrastructure as a Service (IaaS) provided by commercial vendor: No

If no cloud services will be leveraged by this alternative, provide a justification of why cloud services are not being leveraged: Developing a custom solution will not leverage cloud services because the solution will leverage existing CDCR EIS architecture.

### Identify who will modify the existing system or create the new system (Select Yes or No for each):

Agency/state entity IT staff: Yes

A vendor will be contracted: Yes

Inter-agency agreement will be established with another governmental agency. No

Specify agency name(s): [Click or tap here to enter text](#).

Other: [Choose an item](#). Specify: [Click or tap here to enter text](#).

### Identify the implementation strategy:

All requirements will be addressed in this proposed project in a single implementation.  
Yes

Requirements will be addressed in incremental implementations in this proposed project. No

Some requirements will be addressed in this proposed project. The remaining requirements will be addressed at a later date: No

Specify the year when the remaining requirements will be addressed: [Click or tap here to enter text.](#)

**Identify if the technology for the proposed project will be mission critical and public facing:**

The technology implemented for this proposed project will be considered mission critical and public facing. No

**2.10.7C Architecture Information**

**Business Function/Process(es):** Internal facing web-based application

**Application, System, or Component:** Incarcerated Persons Tracking (InPT)

**COTS, MOTS, or Custom:** Custom

Name/Primary Technology: JavaScript, Docker, VueJS, FeathersJS

**Runtime Environment**

Cloud Computing Used: No

If "Yes," specify: [Choose an item.](#)

Server/Device Function: FDCDKRMTM01

Hardware: HPE Blade model BL460C GEN9 / Intel® Xeon (R) CPU E5-2680 v4 @ 2.40GHz  
Hypervisor: VMware ESXi, 6.7.0, 17499825

Operating System: Linux

System Software: Red Hat Enterprise Licenses v8.2-8.3

**System Interfaces:** SOMS and possibly SAP

**Data Center Location:** State data center operated by CDT

If Other, specify: [Click or tap here to enter text.](#)

**Security**

**Access:** (answer Yes or No to all choices)

Public: No

Internal State Staff: Yes

External State Staff: Yes

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**Type of Information** (answer Yes or No to all choices)

Personal: [Choose an item.](#)

Health: Yes

Tax: [Choose an item.](#)

Financial: [Choose an item.](#)

Legal: [Choose an item.](#)

Confidential: [Choose an item.](#)

Other [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**Protective Measures** (answer Yes or No to all choices)

Technical Security: Yes

Physical Security: Yes

Backup and Recovery: Yes

Identity Authorization and Authentication: Yes

Other, specify: [Click or tap here to enter text.](#)

**Data Management**

Data Owner Name: Connie Gipson

Data Owner Title: Director

Data Owner Business Program: Division of Adult Institutions

Data Custodian Name: Charanjit Gill

Data Custodian Title: Technology Manger II

Data Custodian Business Program: EIS Enterprise Data Systems (EDS)

## 2.11 Recommended Solution

**2.11.1 Rationale for Selection:** The recommended solution is to design and develop a custom Progressive Web Application (PWA) solution. This alternative was chosen because it was considered to be the best value and could be implemented in the shortest timeframe while meeting the department's ADA tracking objectives as stated in the Stage 1 Business Analysis. Based on market research performed, this solution was determined to be the best fit and could satisfy ADA business objectives. The risk was weighed against the other alternatives and was judged to be the lowest risk for meeting scope and schedule. Also, this solution was determined to provide the necessary scalability and adaptability to meet future changes to the business.

(Attach rationale documentation to the email submission.)

### 2.11.2 Technical/Initial CA-PMM Complexity Assessment

(Reference section 2.11.2 in the Stage 2 Alternative Analysis Preparation Instructions, [SIMM](#)19B.1 and Complexity Assessment instructions [SIMM](#) Section 45D.)

**Technical Complexity Score:** 0.9

See Project Management Risk Assessment

**Complexity Zone:** Zone I - Low Criticality/Risk

### 2.11.3 Procurement and Staffing Strategy

Select an **Activity**: Solicitation Development

**Responsible** (answer Yes or No to all choices)

Agency/state entity staff: Yes

STP staff: No

CDT Project Approvals and Oversight staff: No

CA-PMO staff: No

DGS staff: No

Contractor: No

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**When Needed** (answer Yes or No to all choices.)

Stage 3 Solution Development: Yes

Stage 4 Project Readiness and Approval: No

After project is approved (after Stage 4 Project Readiness and Approval): No

**Cost Estimate Verification** (answer Yes or No to all choices)

Market research conducted (MR): Yes

Cost estimate provided (CE): Yes

CDT CE: No

DGS CE: No

Request for Information (RFI) conducted: No

Comparable vendor services have been used on previous contracts (CV): No

Leveraged Procurement Agreement (LPA): No

**Complete Only if Contractor Responsible for Activity**

Procurement Vehicle: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Contract Type: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Select an **Activity**: Conduct Procurement

**Responsible** (answer Yes or No to all choices)

Agency/state entity staff: Yes

STP staff: No

CDT Project Approvals and Oversight staff: No

CA-PMO staff: No

DGS staff: No

Contractor: No

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**When Needed** (answer Yes or No to all choices.)

Stage 3 Solution Development: Yes

Stage 4 Project Readiness and Approval: No

After project is approved (after Stage 4 Project Readiness and Approval): No

**Cost Estimate Verification** (answer Yes or No to all choices)

Market research conducted (MR): Yes

Cost estimate provided (CE): Yes

CDT CE: No

DGS CE: No

Request for Information (RFI) conducted: No

Comparable vendor services have been used on previous contracts (CV): No

Leveraged Procurement Agreement (LPA): No

**Complete Only if Contractor Responsible for Activity**

Procurement Vehicle: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Contract Type: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Select an **Activity**: Design

**Responsible** (answer Yes or No to all choices)

Agency/state entity staff: Yes

STP staff: No

CDT Project Approvals and Oversight staff: No

CA-PMO staff: No

DGS staff: No

Contractor: No

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**When Needed** (answer Yes or No to all choices.)

Stage 3 Solution Development: No

Stage 4 Project Readiness and Approval: No

After project is approved (after Stage 4 Project Readiness and Approval): Yes

**Cost Estimate Verification** (answer Yes or No to all choices)

Market research conducted (MR): Yes

Cost estimate provided (CE): Yes

CDT CE: No

DGS CE: No

Request for Information (RFI) conducted: No

Comparable vendor services have been used on previous contracts (CV): No

Leveraged Procurement Agreement (LPA): No

**Complete Only if Contractor Responsible for Activity**

Procurement Vehicle: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Contract Type: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Select an **Activity**: Project Management

**Responsible** (answer Yes or No to all choices)

Agency/state entity staff: Yes

STP staff: Yes

CDT Project Approvals and Oversight staff: No

CA-PMO staff: No

DGS staff: No

Contractor: No

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**When Needed** (answer Yes or No to all choices.)

Stage 3 Solution Development: No

Stage 4 Project Readiness and Approval: Yes

After project is approved (after Stage 4 Project Readiness and Approval): Yes

**Cost Estimate Verification** (answer Yes or No to all choices)

Market research conducted (MR): Yes

Cost estimate provided (CE): Yes

CDT CE: No

DGS CE: No

Request for Information (RFI) conducted: No

Comparable vendor services have been used on previous contracts (CV): No

Leveraged Procurement Agreement (LPA): No

**Complete Only if Contractor Responsible for Activity**

Procurement Vehicle: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Contract Type: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Select an **Activity**: Integration/Development

**Responsible** (answer Yes or No to all choices)

Agency/state entity staff: Yes

STP staff: No

CDT Project Approvals and Oversight staff: No

CA-PMO staff: No

DGS staff: No

Contractor: No

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**When Needed** (answer Yes or No to all choices.)

Stage 3 Solution Development: No

Stage 4 Project Readiness and Approval: No

After project is approved (after Stage 4 Project Readiness and Approval): Yes

**Cost Estimate Verification** (answer Yes or No to all choices)

Market research conducted (MR): Yes

Cost estimate provided (CE): Yes

CDT CE: No

DGS CE: No

Request for Information (RFI) conducted: No

Comparable vendor services have been used on previous contracts (CV): No

Leveraged Procurement Agreement (LPA): No

**Complete Only if Contractor Responsible for Activity**

Procurement Vehicle: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Contract Type: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Select an **Activity**: Testing

**Responsible** (answer Yes or No to all choices)

Agency/state entity staff: Yes

STP staff: No

CDT Project Approvals and Oversight staff: No

CA-PMO staff: No

DGS staff: No

Contractor: No

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**When Needed** (answer Yes or No to all choices.)

Stage 3 Solution Development: No

Stage 4 Project Readiness and Approval: No

After project is approved (after Stage 4 Project Readiness and Approval): Yes

**Cost Estimate Verification** (answer Yes or No to all choices)

Market research conducted (MR): Yes

Cost estimate provided (CE): Yes

CDT CE: No

DGS CE: No

Request for Information (RFI) conducted: No

Comparable vendor services have been used on previous contracts (CV): No

Leveraged Procurement Agreement (LPA): No

**Complete Only if Contractor Responsible for Activity**

Procurement Vehicle: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Contract Type: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Select an **Activity**: Data Migration

**Responsible** (answer Yes or No to all choices)

Agency/state entity staff: Yes

STP staff: No

CDT Project Approvals and Oversight staff: No

CA-PMO staff: No

DGS staff: No

Contractor: No

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**When Needed** (answer Yes or No to all choices.)

Stage 3 Solution Development: No

Stage 4 Project Readiness and Approval: No

After project is approved (after Stage 4 Project Readiness and Approval): Yes

**Cost Estimate Verification** (answer Yes or No to all choices)

Market research conducted (MR): Yes

Cost estimate provided (CE): Yes

CDT CE: No

DGS CE: No

Request for Information (RFI) conducted: No

Comparable vendor services have been used on previous contracts (CV): No

Leveraged Procurement Agreement (LPA): No

**Complete Only if Contractor Responsible for Activity**

Procurement Vehicle: Formal Solicitation (IFB/ RFP)

If Other, specify: [Click or tap here to enter text.](#)

Contract Type: Fixed Price (FP)

If Other, specify: [Click or tap here to enter text.](#)

Select an **Activity**: Technical Installation of Software

**Responsible** (answer Yes or No to all choices)

Agency/state entity staff: Yes

STP staff: No

CDT Project Approvals and Oversight staff: No

CA-PMO staff: No

DGS staff: No

Contractor: No

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**When Needed** (answer Yes or No to all choices.)

Stage 3 Solution Development: No

Stage 4 Project Readiness and Approval: No

After project is approved (after Stage 4 Project Readiness and Approval): Yes

**Cost Estimate Verification** (answer Yes or No to all choices)

Market research conducted (MR): Yes

Cost estimate provided (CE): Yes

CDT CE: No

DGS CE: No

Request for Information (RFI) conducted: No

Comparable vendor services have been used on previous contracts (CV): No

Leveraged Procurement Agreement (LPA): No

**Complete Only if Contractor Responsible for Activity**

Procurement Vehicle: Formal Solicitation (IFB/ RFP)

If Other, specify: [Click or tap here to enter text.](#)

Contract Type: Fixed Price (FP)

If Other, specify: [Click or tap here to enter text.](#)

Select an **Activity**: Organizational Change Management

**Responsible** (answer Yes or No to all choices)

Agency/state entity staff: Yes

STP staff: No

CDT Project Approvals and Oversight staff: No

CA-PMO staff: No

DGS staff: No

Contractor: No

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**When Needed** (answer Yes or No to all choices.)

Stage 3 Solution Development: No

Stage 4 Project Readiness and Approval: No

After project is approved (after Stage 4 Project Readiness and Approval): Yes

**Cost Estimate Verification** (answer Yes or No to all choices)

Market research conducted (MR): No

Cost estimate provided (CE): Yes

CDT CE: No

DGS CE: No

Request for Information (RFI) conducted: No

Comparable vendor services have been used on previous contracts (CV): No

Leveraged Procurement Agreement (LPA): No

**Complete Only if Contractor Responsible for Activity**

Procurement Vehicle: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Contract Type: [Choose an item.](#)

If Other, specify: [Click or tap here to enter text.](#)

Select an **Activity**: Maintenance

**Responsible** (answer Yes or No to all choices)

Agency/state entity staff: Yes

STP staff: No

CDT Project Approvals and Oversight staff: No

CA-PMO staff: No

DGS staff: No

Contractor: Yes

Other: [Choose an item.](#) Specify: [Click or tap here to enter text.](#)

**When Needed** (answer Yes or No to all choices.)

Stage 3 Solution Development: No

Stage 4 Project Readiness and Approval: No

After project is approved (after Stage 4 Project Readiness and Approval): Yes

**Cost Estimate Verification** (answer Yes or No to all choices)

Market research conducted (MR): Yes

Cost estimate provided (CE): Yes

CDT CE: No

DGS CE: No

Request for Information (RFI) conducted: No

Comparable vendor services have been used on previous contracts (CV): No

Leveraged Procurement Agreement (LPA): No

**Complete Only if Contractor Responsible for Activity**

Procurement Vehicle: Formal Solicitation (IFB/ RFP)

If Other, specify: [Click or tap here to enter text.](#)

Contract Type: Fixed Price (FP)

If Other, specify: [Click or tap here to enter text.](#)

**DGS Delegated Purchasing Authority**

Will any of the activities identified above result in a competitive or non-competitive solicitation that will be over the agency/state entity's DGS delegated purchasing authority? No

**2.11.4 Enterprise Architecture Alignment:** The CDCR's Enterprise Information Services strategy leverages technology, innovation, and process improvement to support security, safety, rehabilitation, and efficiencies. The recommended solution provides the opportunity to move toward the target architecture which supports secure information, state-leading time-to-market, and will provide end users timely access to consistent and accurate data. Furthermore, the recommended solution will be based on current technology frameworks already established and in-use at CDCR.

**Information Technology Capability** (Select Yes or No to identify capabilities that may be needed for this project.)

Public or Internal Portal/Website: New Enterprise Capability Needed

Public or Internal Mobile Application: New Enterprise Capability Needed

Enterprise Service Bus: Existing Enterprise Capability to be Leveraged

Identity and Access Management: Existing Enterprise Capability to be Leveraged

Enterprise Content Management (including document scanning and eForms capabilities): Existing Enterprise Capability to be Leveraged

Business Intelligence and Data Warehousing: New Enterprise Capability Needed

Master Data Management: New Enterprise Capability Needed

Big Data Analytics: Existing Enterprise Capability to be Leveraged

**2.11.5 High Level Proposed Project Schedule**

**Proposed Project Planning Start Date:** 2/14/2022

**Proposed Project Planning End Date:** 9/2/2022

**Proposed Project Execution Start Date:** 9/6/2022

**Proposed Project Execution End Date:** 12/22/2022

**2.11.6 Project Phases**

**Phase Title:** Planning

Description: Solution Development and Delegation Authority.

Phase Deliverable: Delegation Authority

**Activity Name:** Stage 4 Project Readiness and Approval

8/11/2022**8/8/2022**

8/11/2022**9/2/2022**

9/6/2022 – 1/27/2023

**Phase Title:** Phase 1 – Pilot ADA

Description: Deployment of solution to one institution prior to statewide implementation.

Phase Deliverable: Fully developed COTS SaaS solution at one institution

**Activity Name:** Solicitation Award

**Start Date:** 9/6/2022

**End Date:** 12/1/2022

**Activity Name:** Requirements

**Start Date:** 9/26/2022

**End Date:** 10/21/2022

**Activity Name:** Development

**Start Date:** 10/24/2022

**End Date:** 12/22/2022

**Activity Name:** Testing

**Start Date:** 12/26/2022

**End Date:** 1/6/2023

**Activity Name:** Training

**Start Date:** 1/9/2023

**End Date:** 1/20/2023

**Activity Name:** Deployment

**Start Date:** 1/23/2023

**End Date:** 1/25/2023

1/23/2023

**Activity Name:** Go Live

**Start Date:** 1/30/2023

**End Date:** 1/30/2023

**Phase Title:** Phase 2 - Statewide ADA

Description: Deployment of solution to all institutions.

Phase Deliverable: Fully developed COTS SaaS solution implemented at all institutions

**Activity Name:** Development

**Start Date:** 2/27/2023

**End Date:** 3/24/2023

**Activity Name:** Training

**Start Date:** 3/27/2023

**End Date:** 4/14/2023

**Activity Name:** Deployment

**Start Date:** 4/17/2023

**End Date:** 4/19/2023

**Activity Name:** Go Live

**Start Date:** 4/24/2023

**End Date:** 4/24/2023

**Activity Name:** Maintenance and Operations

**Start Date:** 4/24/2023

**End Date:** [Click or tap to enter a date.](#) M&O will continue into the future.

### **2.11.7 Cost Summary**

Total Proposed Planning Cost: \$84,747

Total Proposed Project Cost: \$2,446,813

Total Proposed Future Operations IT Staff & OE&E Cost (Continuing): **\$380,830**

Total Proposed Annual Future Operations IT Cost (M&O): \$319,089

## **2.12 Staffing Plan**

### **2.12.1 Administrative**

See supplemental document HR\_and\_Staff\_Management\_Plan\_InPT.docx.

### **2.12.2 Business Program**

See supplemental document HR\_and\_Staff\_Management\_Plan\_InPT.docx.

### **2.12.3 Information Technology**

See supplemental document HR\_and\_Staff\_Management\_Plan\_InPT.docx.

### **2.12.4 Testing**

See supplemental document HR\_and\_Staff\_Management\_Plan\_InPT.docx.

### **2.12.5 Data Conversion/Migration**

See supplemental document HR\_and\_Staff\_Management\_Plan\_InPT.docx.

### **2.12.6 Training and Organizational Change Management**

See supplemental document HR\_and\_Staff\_Management\_Plan\_InPT.docx.

### **2.12.7 Resource Capacity/Skills/Knowledge for Stage 3 Solution Development**

See supplemental document HR\_and\_Staff\_Management\_Plan\_InPT.docx.

### **2.12.8 Project Management**

#### **2.12.8.1 Project Management Risk Assessment**

Project Management Risk Score: 0.9

(Attach PM Risk Assessment to the email submission. [SIMM Section 45C](#))

See 5225-175 InPT Risk Assessment.xlsx

### **2.12.8.2 Project Management Planning**

Are the following project management plans or project artifacts complete, approved by the designated agency/state entity authority, and available for Department of Technology review? (Choose: Yes, No, Not Applicable. If No or Not Applicable, provide the artifact status in the space provided.)

Project Charter: Yes, [Click or tap here to enter text.](#)

Scope Management Plan: Yes, [Click or tap here to enter text.](#)

Risk Management Plan: Yes, [Click or tap here to enter text.](#)

Issue and Action Item Management Plan: Yes, [Click or tap here to enter text.](#)

Communication Management Plan: Yes, [Click or tap here to enter text.](#)

Schedule Management Plan: Yes, [Click or tap here to enter text.](#)

Human Resource Management Plan: Yes, [Click or tap here to enter text.](#)

Staff Management Plan: No, this information is included in the Human Resource Management Plan.

Stakeholder Management Plan: Yes,

Governance Plan: Yes, [Click or tap here to enter text.](#)

### **2.12.9 Organization Charts:**

(Attach Organization Charts to the email submission.) See InPT Project Organization.vsd

## **2.13 Data Conversion/Migration**

Identify the status of each of the following data conversion/migration activities. If Not Applicable, explain why the activity is not applicable or if Not Started, explain when the activity is planned to begin and anticipated to be completed:

Data Conversion/Migration Planning: In Progress, Team has identified that data stored in FDCGISPORTAL is a desirable to be migrated into new solution.

Data Conversion/Migration Requirements: Not Started, This is optional and will only occur if cost is reasonable and technically feasible.

Current Environment Analysis: Not Started, [Click or tap here to enter text.](#)

Data Profiling: In Progress, [Click or tap here to enter text.](#)

Data Quality Assessment: Not Started

Data Quality Business Rules: Not Started

Data Dictionaries: Not Started

Data Cleansing and Correction: Not Started

## 2.14 Financial Analysis Worksheets

(Attach Financial Analysis Worksheet(s) to the email submission.)

## Department of Technology Use Only

Original "New Submission" Date: [5/6/2022](#)

Form Received Date: [9/29/2022](#)

Form Accepted Date: [9/29/2022](#)

Form Status: [Completed](#)

Form Status Date: [10/31/2022](#)

Form Disposition: [Approved](#)

Form Disposition Date: [10/31/2022](#)