

# **Stage 2 Alternatives Analysis**

California Department of Technology, SIMM 19B.2 (Ver. 3.0.7, 11/30/2022)

# **2.1 General Information**

1. Agency or State Entity Name: 5225 - Corrections and Rehabilitation, Department of

If Agency/State entity is not in the list, enter here with the organization code.

Click or tap here to enter text.

- 2. Proposal Name: BIS Migration to S/4 HANA (BIS-2-S4)
- 3. Department of Technology Project Number (0000-000): 5225-180
- 4. S2AA Version Number: Version 2
- 5. CDT Billing Case Number: CS0052773

Don't have a Case Number? Click here to get one.

# **2.2 Submittal Information**

# 1. Contact Information

Contact Name: Tammy Cason Contact Email: tammy.cason@cdcr.ca.gov Contact Phone: (916) 628-6216

# 2. Submission Type: New Submission

If Withdraw, select Reason: Choose an item.

If other, specify reason here: Click or tap here to enter text.

# Sections changed if an update or resubmission: (List all the sections that changed.)

Click or tap here to enter text.

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

Click or tap here to enter text.

- 3. Attach Project Approval Executive Transmittal to your email submission.
- 4. Attach <u>Procurement Assessment Form</u> to your email submission.
- 5. Conditions from Stage 1 Approval (Enter any conditions from the Stage 1 Business Analysis approval letter issued by CDT or your AIO):

The California Department of Technology (CDT) has approved the Stage 1 Business Analysis (S1BA), Gate 1 within the Project Approval Lifecycle (PAL) for the California Department of Corrections and Rehabilitation (CDCR) BIS Migration to S4 HANA (BIS-2-S4) effort. According to the State Administrative Manual (SAM) Section 4819.37, BIS-2-S4 is a non-delegated project and oversight will be provided by the CDT through the remaining PAL planning stages. The CDT has reviewed the business complexity assessment and it is Medium Complexity. The BIS-2-S4 is approved to move to Stage 2 of the PAL planning process subject to the following conditions:

1. Continue to work with appropriate control agencies for FI\$Cal integration for certain business functions.

Unless the CDCR requests and is approved for a Project Delegation Request, the next step in the PAL planning process is preparation for Stage 2 Alternatives Analysis development. A Collaborative Review/Stage 2 Kickoff meeting will be scheduled by the CDT to discuss what is required to advance to the next PAL stage, and ultimately receive the CDT's final project approval. The meeting must include individuals who will be vested with the role of executive project sponsor, project manager or project lead, and participants to represent business/program areas, administrative services, including budgets, procurement, and information technology. This is critical to foster a common understanding of what the planning work will entail, and to promote greater teamwork and better communication once the project is underway

# **2.3 Baseline Processes and Systems**

# 1. Current Business Environment (Describe the current business environment of which the effort will be understood and assessed in 500 words)

CDCR's Enterprise Resource Planning (ERP) system is extremely robust and includes a broad functionality including functionality that is mandated by court order. The Allegations Against Staff Tracking System (AASTS) is a critical module that is required for routing staff allegations through the screening and investigation process and to provide transparency and reporting of those investigations. The Sign Language interpreter module which schedules inmates with sign language interpreters for appointments was also mandated and an approved solution by the courts. These modules are court mandated and the loss of CDCR's ERP would put CDCR in violation of these court orders and others, including Armstrong v. Newsom, Clark v. California and Coleman v. Brown. The system includes a complex budget management and projection module, known as the Budget Forecast Function (BFF), which is critical to managing the Department's budget as well as complex functionality to report and project detailed costing for correctional officer overtime and temporary help, known as the "labor spread", a significant fiscal risk. The Locksmith module tracks institution lock shop data (key type, ring, door, safes, vaults, and vehicle keys), and is a key component to the safety and security of the institutions. The ERP system supports California Correctional Health Care

Services' (CCHCS) strategic goals of ensuring timely access to patient care and establishing medical infrastructure and clinical facilities by enabling the Department to create, track, and report business transactions, including those related to inventories and other property management functions. The functionality allows efficient standard medical supply replenishment and equipment lifecycle processes in an enterprise system. Furthermore, the Employee Health and Safety Module (EHS) is a critical module following mandates from California Code of Regulations, title 8, sections 5144 and 5199, Penal Code sections 6006-6009 and Governor Directives pertaining to the recordkeeping and housing of the CDCR/CCHCS staff electronic medical records. There are critical interfaces to California Department of Public Health as well as functionality to meet the standards of Cal/OSHA.

Estimated Number of Transactions/Business Events (per cycle):

- Issued 2,820 travel advances
- Processed over 299,406 accounts payable invoices totaling approximately \$2.7B
- Took vendor discounts saving CDCR \$7.8M
- Processed over 25,000 inmate releases totaling approximately \$5.4M
- Processed over one million deposits to inmate trust accounts for nearly \$235.6M
- Collected and remitted over \$41M in restitution
- Issued over 13,135 salary advances
- Recorded 51,058 payroll accounts receivables
- Issued 9,265 AR Invoices for a total of over \$199M
- Reclassified costs of over \$48M to ensure alignment of reimbursement receipts with reimbursable expenditures
- Processed a total of 3,006 deposits amounting to over \$278M
- Posted 73,894 non-inmate receipts for a total amount processed of \$318M
- Remitted \$264M to the Centralized Treasury System

# *Tip: Current Environment costs will be asked for in the Financial Analysis Worksheet to be completed in Section 2.12.*

**Attach** The affected business processes documentation will be updated during the migration effort by running the reports again to capture the most current state of the processes. Affected business processes will be identified at the application code module level using the Systems Applications and Products (SAP) Readiness Report and the SAP Process Discovery Report. Then, Fit-Gap Work-Streams conducted with the business SME's and Functional teams will be used to map the current processes onto the new system processes and configurable business workflows.

- The business processes, code and data elements that must change in order to migrate can be found in **<CDCR Analysis Overview.pdf>** with the condition "Mandatory". And in document **<Team RC2 Overview PDF.pdf>**.
- The business services that BIS SAP system provides can be found in document <CDCR BIS SAP Business Services.xlsx>.
- Process improvement opportunities are identified in document: <Process\_Discovery\_Summary\_State\_of\_California\_Department\_of\_Corrections\_ Rehabilitation\_ECP\_16830\_20210804 (002).pdf>

Not available reason:

# 2. Technical Context (Describe the technical environment of which the effort will be understood and assessed in 500 words)

CDCR source SAP landscapes are mainly hosted by the California Department of Technology, CDT. CDCR will host the target SAP environment on a LaaS Hyper-scale Cloud Provider that offers Disaster Recovery services.

SAP ECC 6.0 is the central source system where the business process services are configured and consumed from. The target system is SAP S/4 Hana (COTS). Data migration between the source system and target system is managed through the SAP S/4 Hana migration Cockpit (included with S/4 Hana).

The following are satellite systems complimenting the business core functionality in SAP ECC 6.0:

Supplier Relation Management (SRM) will not migrate to the target landscape and will be decommissioned.

SAP Java Engine will be a fresh COTS install in the target landscape environment. There is no data to migrate for this application.

Fiori Application servers will not migrate to the target environment because their services have been included into the S/4 Hana application.

Business Warehouse (BW) is a SAP business intelligence application. CDCR only created 7 reports in BW to date. CDCR will determine if the 7 BW reports can be moved into SAP S/4 Hana target system. If the 7 reports can be moved to Hana, then BW will not have a corresponding system in the target landscape because the S/4 Hana application will be providing the source system BW services. If BW reports cannot be provided by S/4 Hana, then a new instance of BW for S/4 Hana will be installed and configured; no data migration will take place.

SAP Solution Manager is used for SAP application administration by the technical support staff. A new instance of SAP Solution manager will be installed in the target landscape.

SAP Governance Risk & Compliance (GRC) is used for user provisioning, access control and auditing of the user access for the SAP applications within the landscape. A new instance of SAP Solution manager will be installed in the target landscape.

SAP Process Orchestration (PO) is used for partner data integration. PO has an end-of-life date of 2027. The replacement for PO is the SAP Business Technology Platform (BTP) Integration Suite (SaaS solution). CDR is currently using BTP for SuccessFactors integration to our source SAP ECC 6.0. All partner source landscape partner connections will be recreated on the BTP Integration Suite for the target landscape.

Source ECC 6 Environment	S4 HANA Target Environment	Recom mende d	Comments
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Landscape	Locat ion	OS	DB	Hosts	Location	OS	DB	Hosts		
SAP ECC 6.0	CDT	VM/ RHEL	Oracle	18	LaaS	Cloud VM/ RHEL	HANA	TBD	Yes	SAP S/4 COTS - Common Deployment.
Supplier Relation Management	CDT	VM/ RHEL	Oracle	10					Sunset	SRM isn't actively used and contains archived data.
SAP Java Engine	CDT	VM/ RHEL	Oracle	10	LaaS	Cloud VM/ RHEL	HANA	TBD	Yes	COTS - No Customizations
Fiori Application Servers	CDT	VM/ RHEL	Oracle	7					No	Now included in S/4 Hana.
Business Warehouse	CDT	VM/ RHEL	Oracle	10	LaaS	Cloud VM/ RHEL	HANA	TBD	TBD	COTS -BW/4 HANA or Sunset
Solution Manager	CDT	VM/ RHEL	Oracle	4	LaaS	Cloud VM/ RHEL	Hana	4	Yes	COTS - Common Deployment with custom Development
Governance Risk & Compliance	CDT	VM/ RHEL	Oracle	4	LaaS	Cloud VM/ RHEL	Hana	4	Yes	COTS - Common Deployment with custom Development
Process Orchestration	FDC	VM/ RHEL	Oracle	10	SAP SaaS				Yes	Replace w/SAP Business Technology Platform (SaaS)
Vendor Invoice Management	FDC	VM/ Wind ows	SQL Server	4	FDC	VM/Wi ndows	SQL Server	4	NA	No change, integrate to S/4 HANA
Success Factors	SAP SaaS				SAP SaaS				NA	No change, integrate to S/4 HANA

Attached relevant documentation to email submission:

- Archive server diagram: BIS\_Sys\_ArchiveServer-01Nov2022.pdf
- Logical system environment diagrams: BIS SAP System Architecture Diagram.pdf
- Partner Interface Master list: BIS interfaces\_2022-11-01.xlsx
- Vendor Invoice Management Diagram: PO & VIM Prod & Non Prod Port Diagram 07102018 v2.pdf

Not available reason: Documents are attached. See list above.

# 3. Data Management (Enter the information to indicate the data owner and custodian of the current system, if applicable.)

Data Owner Name: Stacy Lopez

Data Owner Title: Director

Data Owner Business Program area: Division of Administrative Services

Data Custodian Name: Kristin Montgomery

Data Custodian Title: Director

Data Custodian Technical area: Division of Enterprise Information Services

Security - Data Classification and Categorization Yes

Security - Privacy Threshold & Impact Assessment. Yes

# 4. Existing Data Governance and Data

a) Do you have existing data that must be migrated to your new solution?

Answer (Unknown, Yes, No): Yes

If data migration is required, please rate the quality of the data.

Select data quality rating: Few issues identified with the existing data.

**b)** Does the Agency/state entity have an established data governance body with well-defined roles and responsibilities to support data governance activities?

Answer (Unknown, Yes, No): Yes

If Yes, include the data governance organization chart as an attachment to your email submission.

**c)** Does the Agency/state entity have data governance policies (data policies, data standards, etc.) formally defined, documented, and implemented?

Answer (Unknown, Yes, No): Yes

If Yes, include the data governance policies as an attachment to your email submission.

**d)** Does the Agency/state entity have data security policies, standards, controls, and procedures formally defined, documented, and implemented?

Answer (Unknown, Yes, No): Yes

If Yes, attach the existing documented security policies, standards, and controls used to your email submission.

e) Does the Agency/state entity have user accessibility policies, standards, controls, and procedures formally defined, documented, and implemented?

Answer (Unknown, Yes, No): Yes

If Yes, attach the existing documented policies, accessibility governance plan, and standards used to the email submission. **<CDCR ADA 2023.docx>** 

# 5. Security Categorization Impact Table

**Consult** the <u>SIMM 5305-A Information SecurityF Program Management Standard - Security</u> <u>Categorization Impact Table</u>.

**Attach** a table (in PDF) that categorizes and classifies the agency/state entity's information assets related to this effort (e.g., paper and electronic records, automated files, databases requiring appropriate protection from unauthorized use, access, disclosure, modification, loss, or deletion). Each information asset for which the agency/state entity has ownership responsibility shall be inventoried and identified.

#### 6. Security Categorization Impact Table Summary

**Consult** the <u>SIMM 5305-A Information Security Program Management Standard - Security</u> <u>Categorization Impact Table</u> to provide potential impact levels of the following areas:

Confidentiality: High

Integrity: Medium

Availability: Medium

# 7. Technical Complexity Score: 1.8

(Attach a <u>SIMM Section 45 Appendix C</u> with Business and Technical Complexity sections completed to the email submission.)

# **2.4 Requirements and Outcomes**

There are four main requirements that need to be accomplished for the BIS-2-S4 project to be successful.

- 1. Code Remediation. Code remediation is the code cleanup needed for migration to the new system. **<CDCR Analysis Overview.pdf>**
- 2. Fit-to-Standard and Fit-to-Gap analysis and SAP Best Practices. **<CDCR Analysis Overview.pdf & SAP Readiness Check.docx>**
- 3. Data Migration from source system to target system. **<CDCR Proposed Data Conversion** Approach - 113019 Rev 1.pdf>
- 4. The forth requirement is cutover to the target system and system acceptance criteria. Which will be included in the Statement of Work and submitted in PAL phase 3.

**Attach** Requirements and/or Outcomes narratives, mid-level requirements, and/or epics/user stories to submission email.

# **2.5 Assumptions and Constraints**

Relevant assumptions and constraints help define boundaries and opportunities to shape the scope and complexity of the project.

Assumption: Contractor must migrate to hyper-scaler platform.

**Description/Potential Impact**: Limits system hosting options. May experience network congestion during data migration to hyper-scaler platform.

Constraint: Costs and Time.

Assumption: Contractor must begin project work (project kickoff) on or before March 2, 2024.

**Description/Potential Impact**: Limited time to get project approval and RFO awarded.

Constraint: Subject to BCP funding and project approvals.

**Assumption**: Contractor shall target completion of all migration work for September 31, 2025 and provide 12 months of post-migration warranty support from the go-live date. Post-migration warranty coverage shall culminate in final acceptance.

**Description/Potential Impact**: May limit the amount of new functionality that can be delivered.

**Constraint**: The actual go-live date will be determined by the contractor and CDCR based on the project schedule and timeline mutually agreed to as part of the Prepare Phase

**Assumption:** Contractor must act as the primary contractor and point of contact for the project for all project control, migration activities, and warranty services. While acting as the primary contractor, the contractor may, however, utilize subcontracting arrangements as needed and with approval of CDCR to fulfill the requirements of the project and provide CDCR with the lowest overall cost.

# Description/Potential Impact: May cause bids to be higher

#### Constraint: Budget

**Assumption:** Contractor must develop a migration plan that limits CDCR's dependency on duplicate environments, license obligations, and unnecessary cost redundancy. Contractor must optimize CDCR's operational costs during migration as well as the reasonableness of their approach and ability to mitigate risk.

Description/Potential Impact: May increase project delivery time.

# Constraint: Budget

**Assumption:** Contractor must utilize CDCR licenses wherever possible. CDCR will provide its own licenses (e.g. SAP) for the Project under separate CDCR agreements. Additional software licenses required by the contractor (such as migration tools) must be included in the bid response.

**Description/Potential Impact**: CDCR will need to know what licenses we have and how they can be used.

#### Constraint: Budget

**Assumption:** Contractor shall develop a complete solution that accomplishes a production cutover to the target environment(s) with a business interruption goal of no more than 2 business days. (Cutover may include weekend or weekend + CDCR holiday + 2 business days.)

Description/Potential Impact: May not be feasible to fit the cutover into the window.

#### Constraint: Schedule

**Assumption:** Contractor must develop a data migration solution that includes performance of mock and live cutovers.

Description/Potential Impact: May add costs to bid.

#### Constraint: Budget

Assumption: Contractor must include business transformation as part of the migration effort.

#### Description/Potential Impact: May increase scope and costs

#### Constraint: Budget and Schedule

**Assumption:** Contractor shall construct a Migration Test Plan (MTP). This MTP will detail the process, test scripts, and methodology the contractor will use to demonstrate to CDCR that the target environment is operationally identical to the source environment. The MTP must be repeatable and reusable by CDCR, post-migration, to validate subsequent promotions of application modifications from one environment to the next. CDCR currently maintains an extensive test catalog that can be leveraged, and it is expected that CDCR resources will assist in the creation and execution of the test plan.

Description/Potential Impact: Will require CDCR staffing resources.

Constraint: Staff availability.

**Assumption:** Contractor must be responsible for identifying, remediating and certifying all modifications related to Simplification and Custom Code, to complete the successful migration of CDCR's existing BIS SAP System to the target S/4HANA environment.

# Description/Potential Impact: Costs and Schedule.

# Constraint: Budget

**Assumption:** Contractors are responsible for migrating CDCR SAP Process Orchestration (PO) interfaces to the SAP Business Technology Platform Interface Suite (BTP). Contractors are also responsible for migrating interfaces that are outside of PO on to suitable data transfer solutions (FTP, etc.).

# Description/Potential Impact: Costs and Time.

# Constraint: Budget and Schedule

**Assumption:** Contractor must provide knowledge transfer to CDCR staff and consultants, sufficient and as appropriate, for them to participate in system migration exercises, as well as, continue their current role and responsibility and to support BIS SAP ERP's high level of service and operations. CDCR is staffed with competent, senior support resources. It is expected that a primary analyst and required subject matter experts for each functional area will be fully available to support the project.

# Description/Potential Impact: Costs and Time

# Constraint: Budget and Schedule

**Assumption:** Contractor must develop an application architecture and operational processes for on-going support services that support CDCR's requirements for high-availability, business continuity, and application recovery, while maintaining lowest Total Cost of Ownership ("TCO").

# Description/Potential Impact: Costs and Time

**Constraint**: Limited to CDT's Managed services capabilities.

**Assumption:** Contractor must allow for CDCR holidays when planning activities where CDCR staff are required for meetings, consultations, and review of deliverables. CDCR observes California State government holidays.

**Description/Potential Impact**: Reduces flexibly to catchup on tasks when the schedule is behind

# Constraint: Work hours and holidays

**Assumption:** Contractor must plan for all hosting facilities to be located within the Continental United States.

# Description/Potential Impact: May cause bid to be higher

# Constraint: Security

**Assumption**: Contractor must maintain CDCR BIS staff hours of operation. BIS must be accessible Monday through Friday to users with access to the CDCR network during normal business work hours, (herein defined as 7:30 A.M – 5:30 P.M.) excluding holidays, planned downtime, system upgrades, and scheduled maintenance. Prior notification via direct email to designated CDCR contact(s) will be provided for all system maintenance, upgrades/hotfixes, and any other activities which may impact system availability

**Description/Potential Impact**: Reduces flexibly to catchup on tasks when the schedule is behind

# Constraint: Work hours and holidays

Assumption: Remote work by the contractor staff must be conducted with in the United States.

Description/Potential Impact: May cause bids to be higher

Constraint: Security

**Assumption:** Contractor must maintain BIS availability. All BIS environments will be available 99.95% of total time (excluding permissible/agreed-upon downtime). System Availability reports, including performance compared to service levels, will be provided to demonstrate availability, monthly.

**Description/Potential Impact**: CDCR will need to identify the specifics (scope) for downtime, reports and service levels to keep within the budget.

Constraint: Scope and Budget

**Assumption:** Contractor must involve CDCR's managed service provider and CDT implementation services for the target platform hosting provider early in the process, preferably at project kick-off.

Description/Potential Impact: Project requires multi department (CDCR, CDT) coordination.

Constraint: Staffing hours

**Assumption:** Contractor must comply with all regulations for hosting, managing, and transmission of Personally Identifiable Information (PII) and HIPA.

Description/Potential Impact: May limit available hosting options.

**Constraint: Security** 

Assumption: Contractor must fly in all staff for an in person LiveScan at CDCR's S Street Facility.

Description/Potential Impact: May cause bids to be higher

Constraint: Security and Schedule

# **2.6 Dependencies**

Dependencies are elements or relationships in a project reliant on something else occurring before the function, service, interface, task, or action can begin or continue.

Dependency Element: Software support end of life.

**Dependency Description**: SAP ECC 6.0 has an End of Life December 31 2027, migration from the source system must start before 2024.

# **Dependency Element:** Data Migration

**Dependency Description**: The target systems will need to be stood up with a basic configuration before data migration can begin.

# Dependency Element: Code Remediation

**Dependency Description**: A Hana Readiness report will need to be run to create a simplification list before Code Remediation can begin.

Dependency Element: Fit-to-Standard and Fit-to-Gap

**Dependency Description**: A Hana Readiness report will need to be run to create a simplification list before Fit-to-Standard and Fit-to-Gap workshops can begin.

# Dependency Element: Cut Over to target system.

**Dependency Description**: UAT testing and a cut-over dry run will need to be completed before cut over from legacy to the target system can be completed.

# Dependency Element: Data Correction

**Dependency Description**: Data element corrections will need to be completed to fit into the target system before cut over can take place.

TIP: Copy and paste to add Dependency Elements and Descriptions as needed.

# 2.7 Market Research

Market Research (<u>CDT Market Research Guidelines</u>) determines whether products or services available in the marketplace can meet the business needs identified in this proposal. Market Research can also determine whether commercial practices regarding customizing/modifying products or tailoring services are available, or even necessary, to meet the business needs and objectives of the business.

Before undertaking a Market Research approach. Contact your PAO Manager to schedule a collaborative review to review planning to date and discuss the procurement approach.

# 1. Project Management Methodology: Hybrid

# 2. Procurement approach recommended: Standard Procurement

# 3. Market Research Approach

Provide a concise narrative description of the approach used to perform market research.

In March of 2019 Market Research was started by contracting an independent SAP S/4 Hana Migration consultant to provide a review of the SAP S/4 Hana Readiness Assessment and create a project migration plan tailored to CDCR. Input for the research was provided by the business stake holders, BIS functional Staff and BIS technical staff. This migration review concluded in January 2020.

The following reports were created:

- S/4 HANA Readiness Assessment Reports <Team RC2 Overview PDF.pdf>
- Detail Project Plan and Effort Estimation <CDCR Draft Project Plan 01062020.mpp>
- Data Conversion and Governance Roadmap <CDCR Proposed Data Conversion Approach</li>
  113019 Rev 1.pdf>
- Knowledge transfer and working sessions/training <staffing plan for cdcr.xlxs>

 Best Practices on SAP Products and processes for CDCR's Environment <SAP Readiness Check.docx>

Blue Field, Green Field, and Brown Field migration options were presented and reviewed by the business stake holders, BIS functional Staff and BIS technical staff. During review, the business stake holders determined that migrating historical data was a key requirement. Migration of historical data meant that the Green Field approach was not an option because Green Field requires a new system without legacy data. The Business stakeholders also wanted the ability to adopt new out of the box functionality when it was a better fit then the legacy processes, especially when the reviewing custom legacy development. The Blue Field approach was selected as the best approach because it would allow for migration of legacy data and also allow for select process reengineering. The Brown Field approach was not chosen because it is a purely technical migration without any process reengineering for the business.

The BIS technical team also reviewed the server build requirements provided by the Migration consultant. They worked with CDT Linux team and found that CDT onsite Managed Services would not be able to provide servers with the required resource configuration for SAP S/4 Hana. The BIS technical team with CDT were able to determine that SAP S/4 Hana servers could be configured and run on Amazon Cloud or Microsoft Azure. The technical team has included the requirement that the SAP S/4 Hana servers are hosted on Amazon Cloud or Microsoft Azure.

The BIS program has also completed all the S/4 Hana preparation pre-requisites recommended by the Migration consultant. The Legacy system has been upgrade to the recommended enhancement pack, enhancement pack 8. BIS has adopted the S/4 Hana recommended User Interface, SAP Fiori. The SAP Solution manager system has been patched to the recommended levels for S/4 Hana migration activities.

Additional research was conducted with IBM and SAP. Both SAP and IBM ran a SAP S/4 HANA Readiness Assessment and provided recommendations and feedback on the obstacles and opportunities that will be present in each migration approach. The additional research mirrored the findings from the SAP S/4 Hana Migration consultant that was hired. A cumulative total of 18 months was spent on research, concluding in November 2022.

The research indicated that the migration effort will be primarily a technical migration with limited process re-engineering. We determined that the migration vendor will need to be experienced in SAP Hana S/4 migration methodologies. We have also determine that both migration services and hosting services for the target environment will need to be procured.

# 4. Market Research Artifacts

Market Research Artifacts can include internet research, collaboration with other governmental entities, or other documentation.

Attach Market Research artifacts to the email submission.

# **2.8 Viable Alternative Solutions**

The CDT expects Agencies/state entities to conduct a thorough analysis of all feasible alternatives that will meet the proposal's objectives and requirements. Agencies/state entities should provide at minimum the three (3) most viable solutions, one (1) of which could be leveraging and/or enhancing the existing solution (if applicable).

# 1. Viable Alternative Solution #1

#### **Name: Blue Field Migration**

**Description:** Blue Field Migration to SAP S/4 Hana (COTS solution) is a migration that selectively includes business process transformation. The Blue Field approach includes both Brown Field and Green Field methods by choosing some processes to be transformed and other processes to be migrated as is. The scope of the project includes simplification for mandatory and suggested data and business process transformation. 100% of historical data can be migrated to the target systems. Custom code will be reviewed then migrated or transformed. The system infrastructure will be hosted by a hyper-scaler platform. Licensing would be "bring your own"/perpetual. Maintenance and upgrades of the technology stack (database, operating system infrastructure and hyper scaler environments) would be managed by a technology service provider. CDCR will retain the ability to customize application code to meet business needs because it is a COTS implementation. Research indicates that Blue Field transformation require third party software to assist in data migration to the target systems for process that have been transformed in fit-to-standard workshops.

#### Why is this a viable solution? Please explain:

Solution 1 is a viable solution because it allows for selective business process transformation. The business will have the opportunity to explore and adopt new faster, modern, streamlined business processes. An additional benefit is that poorly implemented legacy business processes can be transformed to use a standard process in the new system. Because only mandatory simplifications will be in scope for transformation. The business will also be able to migrate the source system's legacy data into the new system. This option has a larger risk than Solution 2, (Brown Field Migration) because of its larger scope. Business process transformation for suggested simplification opportunities will require additional, workgroups, functional SMEs, coding, testing, training and ultimately; business sign off. Change management, change control and governance will need to be clearly defined to keep the project in scope.

# Approach

Increase staff - new or existing capabilities: No

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

Modify Statute/Policy/Regulations: No

Please Specify: Click or tap here to enter text.

Create a new IT system: Yes

Other: No Specify: Click or tap here to enter text.

# Architecture Information

Business Function(s)/Process(es): Financial Accounting

Business Function(s)/Process(es): Funds Management

Business Function(s)/Process(es): Environmental Health and Safety

Business Function(s)/Process(es): Contact Investigation Module

Business Function(s)/Process(es): Medical Scheduling

Business Function(s)/Process(es): Fleet Plant Management

Business Function(s)/Process(es): Inventory and Warehouse Management

Business Function(s)/Process(es): Enterprise Asset Management

Business Function(s)/Process(es): Human Capital Management

Business Function(s)/Process(es): Time Post Scheduling

Business Function(s)/Process(es): Supply Chain Management

TIP: Copy and paste or click the + button in the lower right corner to add business processes with the same application, system, or component; COTS/Cloud Technology or custom solution; runtime environment; system interfaces, data center location; and security.

# **Conceptual Architecture**

Attach a copy of the conceptual architecture to your email submission.

COTS/SaaS/Cloud Technology or Custom: COTS/SaaS/Cloud Technology

Name/Primary Technology: (COTS) SAP S/4 Hana hosted on a Hyper Scaler

TIP: Copy and paste or click the + button in the lower right corner to add system software information if the application, system, or component uses additional system software.

**Explain Existing System Interfaces**: Current system uses an SAP Enterprise Service Bus called Process Orchestration which facilitates partner connections, data transfers, data transformation and hosts an API gateway. A FTP server is also used for other partners that are unable to connect with Process Orchestration.

**Explain New System Interfaces**: All interfaces will be migrated to a SaaS solution called SAP Business Technology Platform (BTP) Integration Suite. BTP Integration Suite has several hundred out of the box partner connections and an API gateway to host custom solutions.

Data Center Location of the To-be Solution: Commercial data center

If Other, specify: Click or tap here to enter text.

# Security

# Access

Public: No

Internal State Staff: Yes

External State Staff: Yes

Other: No Specify: Click or tap here to enter text.

**Type of Information** (Select Yes or No for each to identify the type of information that requires protection. See the SAM Section 5305.5 for more information.)

Personal: Yes

Health: Yes

Tax: Yes

Financial: Yes

Legal: Yes

Confidential: Yes

Other: No Specify: Click or tap here to enter text.

**Protective Measures** (Select Yes or No to identify the protective measures used to protect information.)

Technical Security: Yes

Physical Security: Yes

Backup and Recovery: Yes

Identity Authorization and Authentication: Yes

Other, specify: Click or tap here to enter text.

**Total Viable Alternative #1 Solution Cost** (copy from FAW – Executive Cost Summary tab, cells E7 through E11):

Planning Costs: \$9,687,305

One-Time (Project) Costs: \$24,095,048

Total Future Ops. IT Staff OE&E Costs: \$17,781,359

Total Proposed Cost: \$51,563,712

Annual Future Ops. Costs (M&O): \$16,945,987

# 2. Viable Alternative Solution #2

# Name: Brown Field Migration

**Description:** Brown Field Migration to SAP S/4 Hana is a technical migration. The scope of the project is limited to mandatory data and business process transformation only. 100% of historical data will be migrated to the target systems. Custom code will be reviewed mitigated then migrated. The system infrastructure will be hosted on a Hyper Scaler Provider (LaaS). Licensing would be "bring your own"/perpetual. Maintenance of the software stack above the Hyper Scaler, (operating system, data base, application) would be CDCR and/or Managed Services Providers contracted by CDCR. CDCR will retain the ability to customize the new systems to meet business needs because it is a COTS implementation. Change management has the smallest profile in this solution because the scope is limited to mandatory changes only.

# Why is this a viable solution? Please explain:

Solution 2 is a viable solution because it has the least amount of risk of the 3 solutions. The project risk is smaller because the scope is limited to mandatory changes only. By limiting the scope to mandatory changes, research indicates that Solution 2 will also be the fastest implementation of the 3 Alternative Solutions. The down side of the Brown Field Migration (technical migration) is that there is very little business process transformation. The business will lose the opportunity to explore and adopt new faster, modern, streamlined business processes. An additional down side is that poorly implemented legacy business processes may be migrated over and implemented in the new system because only mandatory simplifications will be in scope for transformation.

# Approach

Increase staff - new or existing capabilities: No

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

Modify Statute/Policy/Regulations: No

Please Specify: Click or tap here to enter text.

Create a new IT system: No

Other: No Specify: Click or tap here to enter text.

# **Architecture Information**

Business Function(s)/Process(es): Financial Accounting

Business Function(s)/Process(es): Funds Management

Business Function(s)/Process(es): Environmental Health and Safety

Business Function(s)/Process(es): Contact Investigation Module

Business Function(s)/Process(es): Medical Scheduling

Business Function(s)/Process(es): Fleet Plant Management

Business Function(s)/Process(es): Inventory and Warehouse Management

Business Function(s)/Process(es): Enterprise Asset Management

Business Function(s)/Process(es): Human Capital Management

Business Function(s)/Process(es): Time Post Scheduling

Business Function(s)/Process(es): Supply Chain Management

TIP: Copy and paste or click the + button in the lower right corner to add business processes with the same application, system, or component; COTS/Cloud Technology or custom solution; runtime environment; system interfaces, data center location; and security.

# **Conceptual Architecture**

Attach a copy of the conceptual architecture to your email submission.

# COTS/SaaS/Cloud Technology or Custom: COTS/SaaS/Cloud Technology

Name/Primary Technology: (COTS) SAP S/4 Hana hosted on a Hyper Scaler

TIP: Copy and paste or click the + button in the lower right corner to add system software information if the application, system, or component uses additional system software.

**Explain Existing System Interfaces**: Current system uses an SAP Enterprise Service us called Process Orchestration which facilitates partner connections, data transfers, data transformation and hosts an API gateway. A FTP server is also used for other partners that are unable to connect with Process Orchestration.

**Explain New System Interfaces**: All interfaces will be migrated to a SaaS solution called SAP Business Technology Platform (BTP) Integration Suite. BTP Integration Suite has several hundred out of the box partner connections and an API gateway to host custom solutions.

# Data Center Location of the To-be Solution: Commercial data center

If Other, specify: Click or tap here to enter text.

# Security

# Access:

Public: No Internal State Staff: Yes External State Staff: Yes Other: No Specify: Click or tap here to enter text. **Type of Information** (Select Yes or No for each to identify the type of information that requires protection. See the SAM Section 5305.5 for more information.)

Personal: Yes

Health: Yes

Tax: Yes

Financial: Yes

Legal: Yes

Confidential: Yes

Other: No Specify: Click or tap here to enter text.

**Protective Measures** (Select Yes or No to identify the protective measures used to protect information.)

Technical Security: Yes

Physical Security: Yes

Backup and Recovery: Yes

Identity Authorization and Authentication: Yes

Other, specify: Click or tap here to enter text.

Total Viable Alternative #2 Solution Cost (copy from FAW – Summary tab, cell AL33):

Total Proposed Cost: \$48,662,057

# 3. Viable Alternative Solution #3

# Name: Green Field Migration SAP SaaS solution

**Description:** Green Field means to re-implement SAP. CDCR would adopt the full cloud approach with regular upgrades that include new configuration and new business processes. This is a SaaS public cloud offering, the infrastructure is shared with other public consumers. It is licensed as a subscription software service. CDCR would transform their business processes to adopt SAP best practices. Historic data and custom code would not migrate. Very limited customization is available using SAP ABAP extensions in a parallel cloud environment. This option has the largest risk because it contains the most change to CDCR critical business processes. The recommendation should only be considered in conjunction with Fi\$Cal migration because Fi\$Cal adoption brings enormous change and every SAP BIS integrated function would then need to be addressed at that time anyhow.

# Why is this a viable solution? Please explain:

The Green Field approach is a viable option because moving to Fi\$Cal will require CDCR to review all integrated non-financial business processes and migrate them to S/4 Hana. Every

process will need to be re-mapped and transformed into the SaaS solution. SAP is a familiar product for the business, user acceptance would be high. This approach is preferable to using a suite of unfamiliar solutions to bridge the gap between Fi\$Cal and CDCR BIS SAP current functionality. Change management, change control and governance will need to be clearly defined to keep the project in scope.

# Approach

Increase staff – new or existing capabilities: No Modify the existing business process or create a new business process: Yes

Reduce the services or level of services provided: Yes

Utilize new or increased contracted services: Yes

Enhance the existing IT system: No

Modify Statute/Policy/Regulations: No

Please Specify: Click or tap here to enter text.

Create a new IT system: Yes

Other: Choose Yes or No. Specify: Click or tap here to enter text.

# **Architecture Information**

Business Function(s)/Process(es): Financial Accounting

Business Function(s)/Process(es): Funds Management

Business Function(s)/Process(es): Environmental Health and Safety

Business Function(s)/Process(es): Contact Investigation Module

Business Function(s)/Process(es): Medical Scheduling

Business Function(s)/Process(es): Fleet Plant Management

Business Function(s)/Process(es): Inventory and Warehouse Management

Business Function(s)/Process(es): Enterprise Asset Management

Business Function(s)/Process(es): Human Capital Management

Business Function(s)/Process(es): Time Post Scheduling

Business Function(s)/Process(es): Supply Chain Management

TIP: Copy and paste or click the + button in the lower right corner to add business processes with the same application, system, or component; COTS/Cloud Technology or custom solution; runtime environment; system interfaces, data center location; and security.

# **Conceptual Architecture**

Attach a copy of the conceptual architecture to your email submission.

# COTS/SaaS/Cloud Technology or Custom: COTS/SaaS/Cloud Technology

Name/Primary Technology: SAP Cloud SaaS

TIP: Copy and paste or click the + button in the lower right corner to add system software information if the application, system, or component uses additional system software.

**Explain Existing System Interfaces**: Current system uses an SAP Enterprise Service Bus called Process Orchestration which facilitates partner connections, data transfers, data transformation and hosts an API gateway. A FTP server is also used for other partners that are unable to connect with Process Orchestration.

**Explain New System Interfaces**: All interfaces will be migrated to a SaaS solution called SAP Business Technology Platform (BTP) Integration Suite. BTP Integration Suite has several hundred out of the box partner connections and an API gateway to host custom solutions.

# Data Center Location of the To-be Solution: Commercial data center

If Other, specify: Click or tap here to enter text.

# Security

Access:

Public: No

Internal State Staff: Yes

External State Staff: Yes

Other: No Specify: Click or tap here to enter text.

**Type of Information** (Select Yes or No for each to identify the type of information that requires protection. See the SAM Section 5305.5 for more information.)

Personal: Yes

Health: Yes

Tax: Yes

Financial: Yes

Legal: No

Confidential: Yes

Other: No Specify: Click or tap here to enter text.

**Protective Measures** (Select Yes or No to identify the protective measures used to protect information.)

Technical Security: Yes

Physical Security: Yes

Backup and Recovery: Yes

Identity Authorization and Authentication: Yes

Other, specify: Click or tap here to enter text.

# Total Viable Alternative #3 Solution Cost (copy from FAW – Summary tab, cell AL50):

Total Proposed Cost: \$55,296,847

# 2.9 Project Organization

Project planning includes the process of identifying how and when specific labor skill sets are needed to ensure that the proposed project has sufficient staff with the appropriate knowledge and experience by the time the project moves into execution. All staff identified in the following sections should be included in the Financial Analysis Worksheet to be completed in Section 2.12.

# 1. Project Organization Chart:

# Attach <Project Governance Chart.vxd>

# 2. Is the department running this project as a matrixed or projectized organization?

# Matrixed

In each of the following sections, provide a concise description of the approach to staffing the proposed project including contingencies for business/program, IT, or administrative areas to maintain ongoing operations in conjunction with the proposed project.

# 1. Administrative

No additional administrative resources will be needed to maintain operations of the current system in conjunction with the proposed BIS-2-S4 project work load. CDCR Executive Steering Committee role will require less than 5% time commitment. CDCR Program Governance Committee role will 5% time commitment. CDT Program Leadership Staff role will require 15% time commitment.

New enhancements on the legacy system will be wrapped up and frozen once the project is underway. The legacy enhancement freeze will free up CDCR Program Staff resources to be redirected on to the BIS-2-S4 project without requiring additional staff or impacting operational support.

Project procurement, contract management and budget will be the overseen by two CDCR EIS procurement supervisors with experience handling similar sized projects.

# 2. Business Program

The BIS-2-S4 project will request the following busines staff resource for analysis, process reengineering and User Acceptance Testing (UAT) tasks, from the following department programs:

CDCR Business Process Leaders - 20% time commitment

• 2 CDCR Finance SME

- 2 CDCR Supply Chain SME
- 1 CDCR Human Capital Management SME
- 1 CDCR Environmental Health and Safety SME

Business operational capacity will be maintained in two ways. First, new enhancements on the legacy system will be wrapped up and frozen once the project is underway. The legacy enhancement freeze will free up CDCR Business Staff resources, who participate in enhancement analysis, to be redirected on to the BIS-2-S4 project. Second, the business staff assigned to BIS-2-S4 project will shift their work to business staff not involved with the project when needed.

# 3. Information Technology

No additional information technology staffing resources will be needed to maintain operations of the current system in conjunction with the proposed BIS-2-S4 project work load. Business operational capacity will be maintained in three ways. First, new enhancements on the legacy system will be wrapped up and frozen once the project is underway. The legacy enhancement freeze will free up CDCR Technology Staff resources, who participate in legacy enhancement delivery, to be redirected on to the BIS-2-S4 project. Second, the Information Technology staff assigned to BIS-2-S4 project will shift their work to technology staff not involved with the project when needed. Third, an estimated 90% of the technical tasks for the BIS-2-S4 project will be handled by the migration vendor contractor staff.

The proposed staffing resources are as follows: CDCR AS SAP Functional Teams -25% time commitment

- 2 Finance Staff
- 2 Supply Chain Staff
- 2 Human Capital Management Staff
- 2 Environmental Health and Safety Staff

CDCR AS SAP Technical Teams - 30% time commitment

- 2 Security Staff
- 2 Basis Staff
- 3 Development Staff
- 3 Interfaces and Data Staff

CDT Managed Services – time commitment will correspond to task service request tickets.

- 1 Linux Staff
- 1 Networking Staff
- 1 Storage Staff
- 1 Hyper Scaler staff
- 1 Data Base Staff

CDCR EIS Infrastructure - less than 5% time commitment

- 1 Networking staff
- 1 MS Active Directory staff
- 1 Tiger Team staff

CDCR EIS Security 1 staff - less than 5% time commitment

# 4. Testing

No additional information technology staffing resources will be needed to maintain operations of the current system in conjunction with the proposed BIS-2-S4 project work load. Business operational capacity will be maintained in four ways. First, new enhancements on the legacy system will be wrapped up and frozen once the project is underway. The legacy enhancement freeze will free up CDCR Staff resources, who participate in legacy enhancement delivery, to be redirected on to the BIS-2-S4 project. Second, CDCR staff assigned to BIS-2-S4 project will shift their work to technology staff not involved with the project when needed. Third, CDCR Technical Staff is experienced with the testing stages for major application upgrades; system, integration, security, regression. The last application version (Enhancement Pack 8) upgrade testing cycle was handle in house and was successfully concluded. Fourth, a testing script library is available to utilize for the BIS-2-S4 testing effort. The testing script library asset will be especially helpful during regression testing because 70% of the business process will not change from the legacy system to the target host system. The migration vendor will be responsible for performance testing of the target host system.

The proposed staffing resources are as follows:

CDCR Business Process Leaders - 15% time commitment

- 1 CDCR Finance SME
- 1 CDCR Supply Chain SME
- 1 CDCR Human Capital Management SME
- 1 CDCR Environmental Health and Safety SME

CDCR AS SAP Functional Teams -20% time commitment

- 1 Finance Staff
- 1 Supply Chain Staff
- 1 Human Capital Management Staff
- 1 Environmental Health and Safety Staff

Migration Vendor Technical Architecture -10% time commitment

- Project Management Consultant(s)
- Data Consultant(s)
- Developer Consultant(s)
- System Integrator Consultant(s)
- Security Consultant(s)
- BI Analytics Consultant(s)
- Release Management Consultant(s)

CDCR AS SAP Technical Teams –5% time commitment

- 1 Security Staff
- 1 Basis Staff
- 1 Development Staff
- 1 Interfaces and Data Staff

# CDCR AS Contractor Managed Services - 10% time commitment

# 5. Data Conversion/Migration Business Process Transfomation

No additional CDCR staffing resources will be needed to maintain operations of the current system in conjunction with the proposed BIS-2-S4 project work load. Business operational capacity will be maintained in three ways. First, new enhancements on the legacy system will be wrapped up and frozen once the project is underway. The legacy enhancement freeze will free up CDCR Technology Staff resources, who participate in legacy enhancement delivery, to be redirected on to the BIS-2-S4 project. Second, the Information Technology staff assigned to BIS-2-S4 project will shift their work to technology staff not involved with the project when needed. Third, an estimated 95% of the Data conversion tasks for the BIS-2-S4 project will be handled by the migration vendor contractor staff.

The Data Conversion/Migration consists of three major work streams. The first workstream is Business process transformation, where the vendor will work with Functional teams and Business Process Leaders to perform fit-to-standard analysis, fit-to-gap analysis and process improvement workshops. The second workstream is Code remediation, where the vendor will review and correct code in the legacy system before the code is migrated to the target system. The third work stream is Data migration, where the migration vendor will review and migrate the legacy data into the target system using the SAP Cockpit as the data migration tool. The vendor may utilize additional migration tools if the tools are included as part of their bid.

The proposed staffing resources are as follows:

CDCR Business Process Leaders - 15% time commitment

- 2 CDCR Finance SME
- 2 CDCR Supply Chain SME
- 1 CDCR Human Capital Management SME
- 1 CDCR Environmental Health and Safety SME

CDCR AS SAP Functional Teams -15% time commitment

- 2 Finance Staff
- 2 Supply Chain Staff
- 2 Human Capital Management Staff
- 2 Environmental Health and Safety Staff

CDCR AS SAP Technical Teams - 15% time commitment

- 1 Security Staff
- 3 Development Staff
- 3 Interfaces and Data Staff

# 6. Training

No additional CDCR staffing resources will be needed to maintain operations of the current system in conjunction with the proposed BIS-2-S4 project work load. Business operational capacity will be maintained in three ways. First, new enhancements on the legacy system will be wrapped up and frozen once the project is underway. The legacy enhancement freeze will free up CDCR Staff resources, who participate in legacy enhancement delivery, to be redirected on to the BIS-2-S4 project. Second, the CDCR staff assigned to BIS-2-S4 project will shift their work to technology staff not involved with the project when needed. Third, 98% of the training for the BIS-2-S4 business users will be handled by the migration vendor contractors. Training will focus on the 30% of the business process will change from system migration, and where business processes have changed because of business process transformation. Knowledge transfer will take place between the vendor technical staff and CDCR technical staff.

The proposed staffing resources are as follows:

Migration Vendor Data and Process Transformation - 70% time commitment

- System Integrator Consultant(s)
- Security Consultant(s)
- BI Analytics Consultant(s)
- Release Management Consultant(s)

CDCR Business Process Leaders - 10% time commitment

- 2 CDCR Finance SME
- 2 CDCR Supply Chain SME
- 1 CDCR Human Capital Management SME
- 1 CDCR Environmental Health and Safety SME

CDCR AS Functional Teams (Finance, Supply Chain, Human Capital Management, Environmental Health and Safety)

CDCR AS Technical Teams (Security, Basis, Development, Interfaces and Data)

# 7. Organizational Change Management

No additional CDCR staffing resources will be needed to maintain operations of the current system in conjunction with the proposed BIS-2-S4 project work load. Estimates are that the migration will cause a 30% business process change. We will engage organizational change with our Stakeholders and staff by utilizing BIS-2-S4 project management plans; Stakeholder Management, Communications Management and Issue Management to promote strong sponsorship engagement. The BIS-2-S4 project will also conduct user training outlined in 2.9.6. User Acceptance Testing will be conducted with CDCR Business Process Leaders to facilitate business partnership with application design and system acceptance. To mitigate disruption and allow staff to become familiar with the look and feel of the new application, CDCR adopted the S/4 Hana user interface (Fiori) back in 2019.

Executive change management for BIS-2-S4 will be handled by the IT Sponsor Tammy Cason.

Change management across and down the organization will be handled by the CDCR Transformation Governance Group.

The proposed staffing resources are as follows: CDCR Program Governance Committee

CDCR Transformation Governance

CDCR Business and Functional Governance

Stakeholders

**CDCR Business Process Leaders** 

Migration Vendor (Release Management)

# 8. Resource Capacity/Skills/Knowledge for Stage 3 Solution Development

BIS-2-S4 project will have a Governance committee that will enable making informed decisions as regards technology direction and technology investment strategies. The governance framework includes procurement and project management related decision-making descriptions and actions. CDCR's procurement staff are familiar with protest types, use of Public Contract Code (PCC) 6611 and has participated with Statewide Technology Procurement Division in negotiations of various contracts.

# 2.10 Project Planning

# 1. Project Management Risk Assessment

Updated Project Management Risk Score: 0.6

Attach Updated PM Risk Assessment to your email submission. SIMM Section 45A

# 2. Project Charter

Is your project charter approved by the designated Agency/state entity authority and available for the Department of Technology to review? **Choose**: 'Yes,' 'No,' or 'Not Applicable.' If 'No' or 'Not Applicable,' provide the artifact status in the space provided.

Project Charter (Approved): Yes

Status: Project Charter has approved

Attach a copy of the Project Charter to your email submission.

# 3. Project Plans

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

**Note**: For Low to medium complexity and cost projects, discuss with your PAO manager the option of submitting a Master Project Management Plan in place of individual plans.

Scope Management Plan (Approved): Yes

Status: Completed

Communication Management Plan (Approved): Yes

Status: Completed

<u>Schedule Management Plan (Approved)</u> : Yes

Status: Completed

Procurement Management Plan (Approved): Yes

Status:

Requirements Management Plan (Approved): Yes

Status: Completed

Stakeholder Management Plan (Draft): Yes

Status: Completed

Governance Plan (Draft): Yes

Status: Completed

Contract Management Plan (Draft): Yes

Status: Completed

Resource Management Plan (Draft): Yes

Status: Completed

Change Control Management Plan (Draft): Yes

Status: Completed

Risk Management Plan (Draft + Risk Log): Yes

Status: Completed

Issue and Action Item Management Plan (Draft + Issue Log): Yes

Status: Completed

Cost Management Plan (Approved if planning BCP approved): No

Status: Started

# 4. Project Roadmap (High-Level)

**Attach** a high-level Project Roadmap showing remainder of planning phase and transition into execution phase to the email submission.

- a) Planning Start Date: 7/1/2022
- b) Estimated Planning End Date: 6/30/2024
- c) Estimated Project Start Date: 7/1/2024
- d) Estimated Project End Date: 11/30/2026

# 2.11 Data Cleansing, Conversion, and Migration

# If in Section 2.3 (above) the answer to the question "Do you have existing data that must be migrated to your new solution?" was marked "Yes," please complete this section.

The California Department of Technology recommends having a Data Consultant start data cleansing, conversion, and migration activities as soon as possible.

Identify the status of each of the following data activities. If "Not Applicable" is chosen, explain why the activity is not applicable or if "Not Started" is chosen, explain when the activity will start and its anticipated duration:

1. Current Environment Analysis: Completed

<SAP Readiness Check.docx>

2. Data Migration Plan: Completed

<CDCR Proposed Data Conversion Approach - 113019 Rev 1.pdf>

3. Data Profiling: Completed

<Team RC2 Overview PDF.pdf>

4. Data Cleansing and Correction: In Progress

<Team RC2 Overview PDF.pdf>

5. Data Quality Assessment: Completed

<Team RC2 Overview PDF.pdf>

6. Data Quality Business Rules: In Progress

<Team RC2 Overview PDF.pdf>

# 7. Data Dictionaries: Completed

<Team RC2 Overview PDF.pdf>

8. Data Conversion/Migration Requirements: Completed

<Team RC2 Overview PDF.pdf>

# 2.12 Financial Analysis Worksheets

Attach F.2 Financial Analysis Worksheet(s) to the email submission.

End of agency/state entity document.

Please ensure ADA compliance before submitting this document to CDT.

When ready, submit Stage 2 and all attachments in an email to ProjectOversight@state.ca.gov.

# **Department of Technology Use Only**

Original "New Submission" Date: 9/6/2023 Form Received Date: 2/7/2024 Form Accepted Date: 2/7/2024 Form Status: Completed Form Status Date: 2/21/2024 Form Disposition: Approved Form Disposition Date: 2/21/2024