Project Management Plan (PMP)

[Project Name]

[Organization and Country]

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<When tailoring the tracking and approval blocks above, you may wish to give a better description of the approval criteria specific to your deliverable type. The author may want to create a check list as the means for conducting a an approval of a deliverable instead of a single line to denote the approval or disapproval

Note: The "Approver" column above typically contains a short description of the approver on the project. For example, if a technical approval were needed as part of the overall approval, the "Approver" would describe the reviewer as the technical architect responsible for the related project. >

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1. INTRODUCTION

This Project Management Plan (PMP) is the controlling document for managing the *<Project Name>* System project. This PMP defines the technical and managerial processes necessary to satisfy the project requirements, describes the methodology and procedures for developing systems throughout the lifecycle, discusses the assumptions and constraints that affect the development effort, and defines each phase of the system development lifecycle.

This PMP is a part of an interrelated set of plans and processes, each focusing on a specific aspect of system development project management, such as the following *<add/remove as required>*:

- Change Control Plan (CCP)
- System Test Plan (STP)
- User Acceptance Test (UAT) Test Plan
- Service Level Agreements (SLAs)
- Performance Measurement Plan

The project will review these documents at least yearly to keep them current and relevant.

1.1. Project Background

<Provide project background information, referencing the Project Charter that authorized its initiation and Business Case that illustrates how project objectives align with organizational mission.>

1.2. Scope Statement

<Describe in detail the scope of the project, including applicable activities required to meet project objectives. Detail what is not included in the project.>

1.3. Success Criteria

<Describe either in paragraph, bulleted, or tabular form what would be considered success for the project. This may pull text from the Business Case and should include text regarding final signoff from the client.>

1.4. Assumptions and Constraints

<Identify and explain the assumptions (the fundamental inferences accepted by the project) and constraints (system boundaries, limitations, or restrictions that have been defined or exist) that were taken into account during the development of the project plan.

Assumptions are required when you cannot guarantee that another individual will automatically make the same or a similar assumption. Assumptions are usually required for one or a combination of the following purposes: prediction, simplification and/or clarification. A prediction is made when the future is unclear or uncertain. A simplification is made when the details are too overbearing, confusing, or impossible to attain. Clarification is needed when information is ambiguous or when information is missing.

Constraints may include using client tools, procedures, having to work within an embedded environment, transition from an existing environment, limitations on software licenses, training availability/schedule, budget and/or other resource constraints. >

The following assumptions were made in the creation of the PMP:

1. *<Assumption 1>*
2. *…*

The following constraints were identified in the creation of the PMP:

1. *<Constraint 1>*
2. *…*

1.5.   Document Overview

<Insert additional summary of the purpose and contents of this document and describe any security or privacy considerations associated with its use. Insert any project specific comments and the type of development.>

This Project Management Plan (PMP) is the controlling document for managing the *<Project Name>* System project. The remaining sections are organized as follows:

- **Section 2 - Project Organization:** Defines the project team structure, roles and responsibilities, project staff assignments, and key project points of contact;
- **Section 3 - Management Process:** Defines how the project will be managed and controlled from inception through project close-out;
- **Section 4 - Technical Process Plans:** Defines the technical approach, technical requirements, and system acceptance;
- **Section 5 - Supporting Process Plans:** Defines at a granular level how the project will be managed on a daily basis;
- **Section 6 - Additional Plans:** Provides additional project / system plans that fall outside of the daily management of the project;
- **Appendix A - Acronyms and Definitions:** Lists the acronyms used within this document.
- <Add appendices as required>

1.6.   Reference Documents

<List the documents used as the basis for creation of the PMP, or documents referenced within this document.>

Please reference the following documents which support the creation of, or support the contents within this document:

- Configuration Control Plan
- Software Design Document
- MIS Expenditure Report
- Requirements Specification Document
- GHSC-PSM MIS System Development Life Cycle (SDLC) Handbook
- System Architecture Document

- System Administration Guide / Manual
- <List documents>

2. PROJECT ORGANIZATION

2.1. Project Team Structure

<Describe the structure for the project team, including functional area leads and staff, using the organizational chart below (optional). Identify the project organizational units that will be responsible for each team member.>

The *<Project Name>* project organizational structure supports the roles and responsibilities of the development effort, as depicted in Figure 1 and Table 1 below. The project's organizational chart with current staffing information is located *<state the common name for the configuration management library, e.g. Configuration Management Library, Project Team Site, etc.>*.

Figure 1: *<Project Name>* Functional Organization Chart
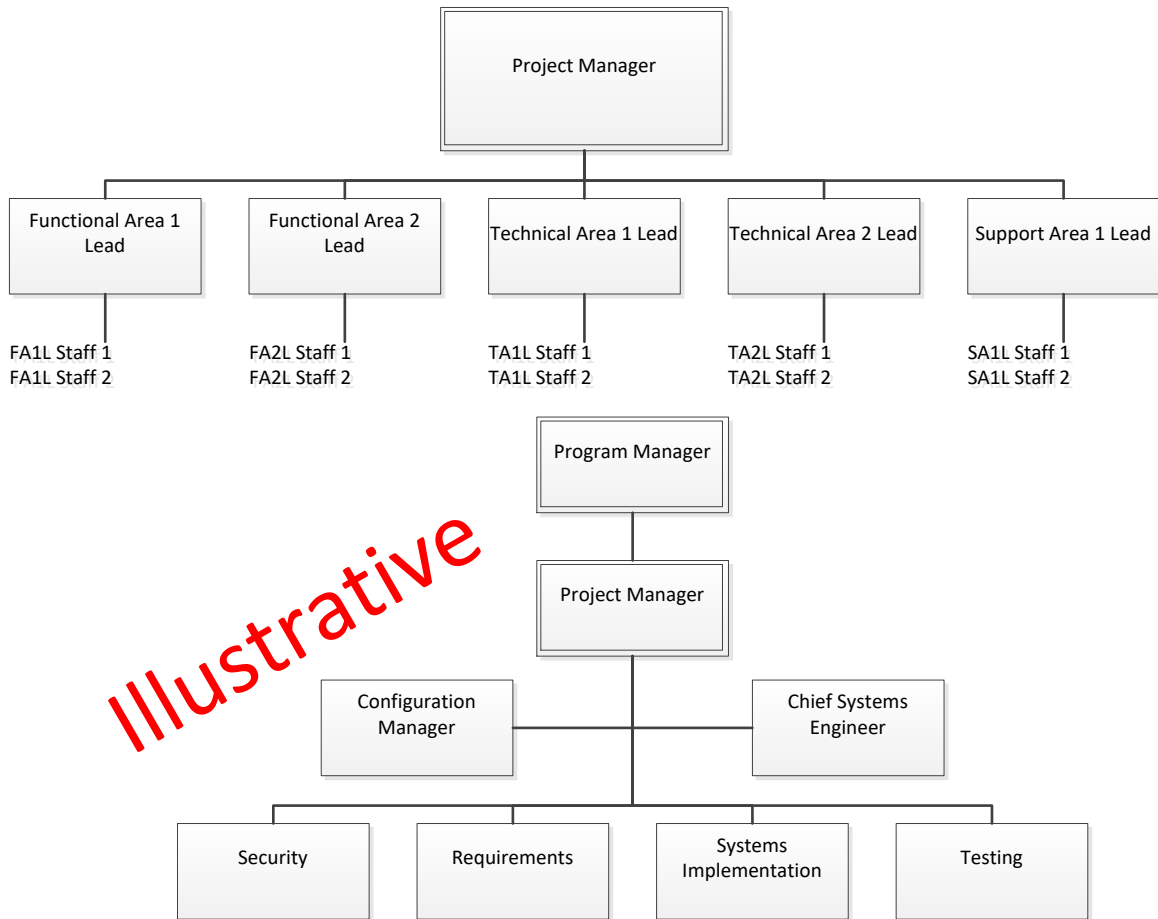
*Disclaimer: If specific training is required to fulfill project tasks, the Project Manager (PM) will coordinate with staff member accordingly.

<The roles/responsibilities below are based on the illustrative example above. Please add/modify to meet your project specific needs. Use terms that are familiar to the project.>

Table 1: Roles and Responsibilities Matrix

Role	Responsibility
Program Manager	• Provides program oversight and support to the Project Manager for identifying and leveraging all resources needed, including staff and finances • Alternate for the Project Manager when the Manager is absent
Project Manager (PM)	• Oversee all project planning and execution activities • Coordinate project communication within the project team, and between the vendor, the client, and client representatives • Manage the negotiation of scope and schedule commitments between the vendor and the client • Monitor project cost, schedule and risks; escalate issues as appropriate • Ensure that the project team members have adequate resources, training and funding to perform their functions and meet commitments • Manage the Task Order budget; review and approve invoices • Prepare client and Senior Management status reporting • Manage project Security needs • Responsible for Analysis and Resolution activities
Configuration Manager (CM)	Perform Configuration Control activities as specified in the Configuration Control Plan
Chief Systems Engineer	• Manage the planning and execution of the activities assigned to the development team • Report on progress against the work breakdown structure (WBS)/schedule • Participate in risk management activities • Submit measurement data according to plan and participate in analysis • Coordinate product integration activities with CM Manager • Perform SDLC activities as required
Security Lead	Perform Mission Assurance, Security and certification and accreditation (C&A) activities as specified in the PMP
Requirements Lead	Perform Requirements activities as specified in the PMP
Systems Implementation Lead	Perform Systems Implementation activities as specified in the Software Design Document and the PMP
Test Lead	Perform Testing activities as specified in the Test Plan and the PMP

Role	Responsibility
Team Members	• Perform work on the project as directed by Team Lead, as specified in the project WBS/schedule • Report activity status on a regular basis
Designated Team Member	Perform function(s) the Project Manager has designated to the member.

2.2. Staffing Plan

< Identify project specific roles along with required knowledge domains and skill sets that will be necessary for project team members to effectively perform in their assigned role. For those key personnel that have already been identified associate them with one or more of the defined project roles. Document this assignment in the organizational chart in the previous section.>

Please refer to Appendix B: Staffing Role to Skill Matrix for a role to skill matrix. This matrix will be used when identifying staffing needs.

Staffing is managed through the following methods:

1. Program staffing and budget needs are identified as a result of the estimated resources in the Management Information System (MIS) Expenditure Report.

2. The PM coordinates with the appropriate Team Lead to provide staffing resources.

3. The staffing needs are reviewed weekly at the Team Lead Meeting.

4. All staff prior to joining the effort must be interviewed and approved by the corresponding Team Lead and Project Manager (or person designated by Project Manager).

5. All staff must complete the appropriate required training.

6. All staff must have access to the *<repository for project information>* and complete all prerequisite tasks for new team members.

7. For those staff that transition off the program, the Team Lead must provide a transition plan. This plan must identify their end date and any outstanding activities and how they will be addressed prior to exiting the program. This may be provided via e-mail to the Team Lead and PM.

2.3. External Interfaces

<Identify external groups such as vendors or contractors, and their respective roles and responsibilities. Note: Below is an example of some of the roles and responsibilities. Update roles and descriptions based on the terminology of your project. Then align your stakeholders to the roles. For key roles, identify the person by name next to the role. For non-key roles, stating the stakeholder/organization is acceptable. It is possible for a stakeholder organization to hold multiple roles.>

There are several stakeholders for the *<Project Name>* project. Those who have a direct impact on the final deliverables are listed below in Table 2.

Table 2: Stakeholder Involvement

Stakeholder	Role	Responsibilities
<stakeholder name>	Client Project Manager	• Responsible for working with the business owners of the system under development and securing appropriate approvals when required • Responsible for ensuring proper stakeholders are in attendance at meetings to ensure project proceeds on time and on budget
<stakeholder name>	Client Business Owner	• Approves final requirements for system under development • Approves involvement of headquarter (HQ) and field users • Approves final system
<stakeholder name>	Subject Matter Experts	Provides input on area of expertise (e.g., finance, accounting, purchasing.)
<stakeholder name>	Technical Resources	• Provides technical input regarding what is allowed and unallowable for the client site for the project • Assist in securing needed technical resources (e.g., hardware, software, other infrastructure requirements)
<stakeholder name>	HQ Users	• Provides input on the requirements of the system under development • Works with the Business Owner in recommending approval of requirements and final system
<stakeholder name>	Field Users	• Provides input on the requirements of the system under development • Works with the Business Owner in recommending approval of requirements and final system
<stakeholder name>	Vendor Project Manager	Responsible for working with the client PM to ensure project proceeding on time and on budget
<stakeholder name>	Vendor Team Members	• Work directly with users to solicit requirements, and to obtain approvals for development efforts • Provide recommendations on various alternatives, when required, in order to assist the client in decision making.

2.4. Communications

Table 3 below depicts the various methods of communication between the *<project name>* team, the client, and stakeholders. These communication methods provide standards for information exchange, ensuring that the *<project name>* team, the client, and affected groups are informed on the appropriate aspects of the task and intergroup commitments are communicated. Table 4 reflects our standing meeting on the NCS IMS project.

<Update to meet the requirements for project communication>

Table 3: Communication Methods

From	To	Function	Frequency
Project Team Members	Team Leads	Intergroup Coordination, status of critical tasks and dependencies	Weekly Team Meetings, as necessary
Project Team Leads	Project Team Members, Team Leads	Intergroup Coordination, status of critical tasks and dependencies	Weekly Team Meetings, as necessary
Project Manager	Program Manager Chief System Engineer	Intergroup Coordination, communication of project status and key issues requiring Senior Management attention	Monthly Program Management Review Meetings, as necessary.
Project Manager	Client	Intergroup Coordination, Project status tracking and reporting, Issue resolution	Weekly Client Status Meetings, ad hoc meetings, as necessary
Project Team, Team Leads	Project Manager	Intergroup Coordination, Project status tracking and reporting	Weekly Team Meetings, as necessary.
Designated Team Members, Project Manager	Team Members	Intergroup Coordination, Action Item Tracking, Monitoring, Prioritizing and Assignment	Action Item updates done immediately and reviewed weekly
Designated Team Leads	Project Manager	Intergroup Coordination, Technology Focus Groups, status communication	Weekly and Biweekly Meetings, as necessary.

Table 4: Standing Meetings

Meeting	Description
Status Meeting	Weekly discussion on status, schedule, cost, and risks

Meeting	Description
Technology Working Group (TWG)	As needed working meeting to discuss and coordinate progress, status, and development
Change Control Board (CCB) Meetings	Occurring at least monthly, as needed, to discuss Configuration Item (CI)/ Data Item (DI)DI CCRs, baselines, and revisions.

2.5. Key Project Points of Contact

<Identify key points of contact and their respective role mapped to the table above and their contact information.>

Table 5 below lists the key points of contact and their respective contact information for the *<Project Name>* project.

Table 5: Key Points of Contact

Name	Company	Role	Email	Phone
				(o) ######## (m) ########
				(o) ######## (m) ########

3. MANAGEMENT PROCESS

3.1. Project Deliverables

<List in tabular form the artifacts to be created during the project, including target delivery dates. Columns may be modified to reflect the deliverables section within the SOW; however the deliverable and the due date must be included at a minimum.>

The project deliverables as defined in the Statement of Work are listed in Table 6 below.

Table 6: Project Deliverables

Deliverable	Acceptance Criteria	Due Date

3.2. Requirements Management

Requirements Management involves establishing and maintaining an understanding and agreement with the client on the requirements for the systems the project will build throughout the systems lifecycle. Requirements form the basis for estimating all systems activities, planning and tracking the project systems activities, and creating the systems work products. All requirements must be supportive of the client mission and/or project success criteria.

3.2.1. Tools and Environment

<Identify the tools used to manage the requirements, and the environments required to support the requirements management.>

Table 7 identifies the tools required for requirements management.

Table 7: Requirements Management Tools

Tool	Purpose
<requirements repository/system>	Used as requirements repository for feature level requirements and provides CM control mechanisms to requirements.
Microsoft Word	Used to document system use cases.
Microsoft Excel	Used to document system data attributes (data journal)
<change management system>	Create CCRs and store them in a repository complete with mechanisms to control changes.
<version control system>	Maintains and version controls requirements documents.

Tool	Purpose
<collaboration system>	Used as central location for publishing requirements working group documents.

3.2.2. Identification

Every item in a requirement traceability matrix must be uniquely identified. This section defines how items are identified.

3.2.2.1. Requirements Identification

A unique ID will identify a system requirement. In addition to a requirement summary and description, additional information will be collected to better manage tracking and prioritization: origin, priority, release version, planned iteration, actual iteration, status, risk, difficulty, stability, category, and design component. These are described in greater detail below in section 3.2.5, Attributes.

3.2.2.2. Client-provided Application Identification

System name and version number will identify functionality of client-provided applications.

3.2.3. Analysis

<Document the requirements analysis procedures and methods the project follows to determine if the requirements are sufficient to meet the client's objectives for the product. The following should be taken into consideration when defining the analysis:

- *The process for analyzing stakeholder needs and expectations, review and analysis of functional groupings of requirements, the utilization of use case diagrams and activity flows.*

- *Describe the requirements analysis procedures and methods the project follows to determine if the requirements are sufficient to meet the client's objectives for the product.*

- *Address stakeholder needs and constraints such as cost, schedule, performance, maintainability, or risk during requirements analysis.*

- *Requirements (and changes to requirements) should be analyzed in the context of the constraints imposed by project costs, schedule, performance parameters and goals, and risks.*

- *Technical and considerations such as functionality, reusable components, and maintainability should also be considered when analyzing requirements as well.>*

Text …

3.2.4. Traceability

Requirements traceability is the ability to trace a requirement to a design, to a developed module, to a test case, and to a UAT test case. This must be bidirectional (e.g., tracing from design to requirements and from requirements to design, tracing from code to requirements and requirements to code, tracing from test scripts to requirements and requirements to test scripts).

Please see the Requirements Specification document for additional details on requirements traceability.

3.2.4.1. Criteria for Requirements

Every requirement must trace to a system development product (e.g., system release, formal document) or record a stakeholder need. All requirements must be:

- Supportive of the project success criteria;
- Clear and concise;
- Feasible and appropriate to implement for development;
- Consistent with the other requirements;
- Testable;
- Complete;
- Unambiguous.

3.2.5. Attributes

<Note: The subsections below are recommendations on the attributes to be captured with the requirements. You may add/remove attributes as directed by your program. If you add attributes, they must be added below with sufficient detail to describe the purpose and acceptable values.>

3.2.5.1. Attributes for Requirements

<Define how a unique identifier is created and the format of the unique identifier. Specify if the unique ID is created manually, or auto-generated from a system used to manage the requirements.>

Requirements have a unique identification code …

3.2.5.2. Attributes for Client Systems

Client system has a name and a version number.

3.2.5.3. Origin

The origin of the requirement denotes the source where that requirement was gathered. Possible values include: Configuration Change Board (CCB), Joint Application Design (JAD) session, Statement of Work (SOW), or End Users. This attribute is optional for each requirement.

3.2.5.4. Priority

The priority of each requirement is determined by the Project Management Team and client input. This attribute is optional for each requirement. Table 8 below identifies the requirement priority values.

Table 8: Requirements Priorities

Priority	Description

Priority	Description
Low	Designates that the requirement under review is of low priority for implementation.
Medium	Designates that the requirement under review is of medium priority for implementation.
High	Designates that the requirement under review is of high priority for implementation.

3.2.5.5. Release Version

The release version of each requirement is determined by the Project Management Team and client input. This attribute is required if the Status of the requirement is implemented.

See the Configuration Control Plan for details on the methodology behind defining the release version.

3.2.5.6. Planned Iteration

The planned release of each requirement is determined by the Project Management Team and client input. This attribute is optional for each requirement.

3.2.5.7. Actual Iteration

The actual release of each requirement is captured based on the release allocation. This attribute is optional for each requirement.

3.2.5.8. Status

The status of each requirement is set after the Project Management Team has negotiated and reviewed the requirements. Once the project baseline has been defined, the status is then used to track subsequent progress. This attribute is optional for each requirement. Table 9 below identifies the requirement status values.

Table 9: Status Definitions

Status	Description
Proposed	Requirements that are under discussion but have not yet been reviewed and accepted by the client project team.
Approved	Requirements that are deemed useful and feasible, and have been approved for implementation by the client project team.
Implemented	Requirements that have been implemented into the product baseline for a specific release.
Validated	Requirements that have been validated based on testing outcomes.

3.2.5.9. Risk

The development team determines the risks based on the probability that the requirement may falter due to the undesirable events, such as cost overruns, schedule delays or even cancellation. Each requirement is assigned a categorical risk of high, medium, and low. Risk can often be assessed indirectly by measuring the uncertainty of the project's estimated schedule. This attribute is optional for each requirement.

3.2.5.10. Difficulty

Analysts and the Development Team assess difficulty based on the complexity of the architecture needed for the given requirement. Difficulty is tracked on a scale of low-medium-high, with low representing simple architecture and high representing complex architecture. This attribute is optional for each requirement.

3.2.5.11. Stability

Analysts and the Development Team assess stability based on the probability that a requirement might change. Stability is a factor used to assist in establishing development priorities, and determining those items for which additional elicitation is the appropriate next action. Stability is tracked on a scale low-medium-high. This attribute is optional for each requirement.

3.2.5.12. Category

The System Analyst determines the category of the requirement. It could be Functionality, Usability, Reliability, Performance, Security, Design Constraints, Interfaces, Regulatory Standards, and Business Rule. This attribute is optional for each requirement.

3.2.5.13. Design Component

The System Analyst and Software Manager determine the design component of the requirement. It could be the design specification or Visio diagram and customized by project. This attribute is optional for each requirement.

3.2.6. Requirements Change Management

Refer to the *<Project Name>* Configuration Control Plan.

3.3. Schedule Control

<Note: Review and verify the content below for your project. This content may differ based on project/contract needs.>

The project schedule is the primary tool for identifying, scheduling, and tracking the progress of project tasks and sub-tasks. Project schedules for the *<Project Name>* project are developed and reviewed with *<client, senior mgmt., other>* at the outset of each contract task order. The project schedule identifies the specific resources, activities, durations, estimates, target completion dates, critical path, and task dependencies that define successful completion of the task. The project schedules are based on the contract task order SOW, budget, and negotiations with the <Project Name> Client. Reference copies of the SOW and budget are stored with the Project Manager.

The project schedule is reviewed by all project team leads as well as other affected software related groups. The schedule is maintained and stored in *<location where the latest schedule can always be found>*.

3.3.1. Schedule Replanning

<Note: Review and verify the content below for your project. This content may differ based on project/contract needs.>

When adjustments to the project schedule are required, the Project Manager develops a revised schedule. Replanning triggers include:

- Change in scope;
- Change in budget;
- Resource availability;
- Any other element that could delay or change the project schedule by one week or more.

The discussion of the need and magnitude of a schedule revision is included in the weekly Client meetings. The *<Project Name>* Client has *<number>* working days to contest the revised schedule; lack of response is contractually deemed as approval of the contents.

3.4. Finance Control

<Describe how the project will monitor spending against the budget. Include corrective measures where appropriate. Note: Review and verify the content below for your project. This content may differ based on project/contract needs.>

The project spend plan appropriately and proportionately allocates project funding across the project's schedule and cost elements. In addition to schedule and scope, the project spend plan characterizes the costs constraints faced by the project and how the budget will be allocated.

A monthly worksheet, the MIS Expenditure Report, is used to by the Project Manager or designee to manage the finances of the project. This spreadsheet lists each task, and tracks monthly: budget allocated, actual spent, and % complete. A total per task and per project is also provided to track progress and remaining funds over time. The Project Manager or designee generates monthly actuals from the *<vendor name>* financial system and current month actuals through best estimates, and updates the monthly worksheet. This spreadsheet is provided to the client on a monthly basis for financial review. It is understood that there is a small degree of error for actual estimates; however, providing estimates will provide the client with more transparency and a better understanding of the financials.

When adjustments to the project budget are required, the Project Manager will communicate the need to the *<client role responsible>*. Replanning triggers may include:

- Change in scope;
- Change in budget;
- Resource availability;
- Any other element that could delay or change the project schedule by one week or more.

Budget replanning may require a contract modification, and will be managed between the Project Manager and the *<client role responsible>*.

3.5. Quality Assurance

<Note: The purpose of QA is to have an unbiased assessment on the state of the project development. This can be performed by the MIS team, or by another vendor selected by the vendor performing the work. The COTR or management from the organization providing the funding must agree with who will perform the independent validation. Depending on the duration and

the size of the project will depend on how frequent QA audits may be performed. Potential frequencies may be based on time such as quarterly, bi-annual, annual; or based on project completion such as at 25%, 50%, 75% complete.>

The purpose of Quality Assurance (QA) is to provide management with appropriate visibility into the process being used by the project and of the products being built. The QA function is performed independently of the project team. The QA activities are defined and performed *<define frequency >* by *<define who will perform the QA>*.

QA tasks may include the following:

- Conducting process audits on system development processes, as defined within the project schedule, the system development phases, and in accordance with referenced documents;
- Conducting product audits on work products;
- Reviewing internal and external documents;
- Participating in the preparation, review, and approval of the project's PMP and other related plans;
- Objectively evaluate process activities and adherence to the process;
- Objectively evaluate work products.

3.6. Project Reporting

<Describe the reporting protocol the project will conduct. Specifically, projects should seek to define reporting protocol for the following (as applicable): Budget/expenditure reviews, risk/issue(s), performance measures/trend analysis, and vendor performance.>

Project status will be reported by the Project Manager per the contract requirements. Table 10 below identifies the reporting requirements, frequency, and content of each deliverable.

Table 10: Project Reporting Artifacts

Report	Frequency	Content
MIS Expenditure Report	Monthly by COB (ET) on the first Friday of the month following the reporting month.	• Task List • Budgeted Funds per Task (per month and contract total) • Actual Money Spent per Task (per month and contract total) • Task % Complete per Task (per month and contract total) • Total Budgeted Funds (per month and contract total) • Total Actual Money Spent (per month and contract total)
Project Status Report	Monthly by COB (ET) on the first Friday of the month following the reporting month.	• Project Summary • Monthly accomplishments • Issues • Risks • Deliverables - current and next phases • Upcoming events • Action Items
SLA Reporting	*<as defined in the SLA>*	• <as defined in the SLA>
<insert additional contract deliverables>		•

3.7. Risk Management

Risk Management begins at the estimating stage of the project, prior to task inception, and continues throughout the SDLC. Any assumptions made in the development of a plan or schedule should be considered for documentation as a risk. Risks are identified and managed through the use of a Project Risk Matrix, which is maintained in the MIS Expenditure Report *<… or state other location.>*.

The Project Risk Matrix is used as the basis for establishing agreements between the project team and the management for Risk Management. The project risk matrix is a "living document" and is reviewed weekly during project team meetings and management meetings for any changes or additions.

Risk management encompasses the following:

- •   Risk Identification;
- •   Risk Analysis;
- •   Risk Mitigation and Response;
- •   Risk Monitoring and Resolution;

- Risk Escalation;
- Issue Management;
- Risk Closeout.

3.7.1. Risk Identification

Risk identification is the process of identifying potential conditions and situations that, if realized, could impact the ability of the project team to meet its project goals and commitments. Potential sources of risks include:

- Assumptions made during the development or revision of the project plan, budget, or schedule;
- Business owner requirements and expectations;
- Dependencies between project tasks.

A potential risk can be identified and reported by members of the project team, stakeholders, or oversight bodies internal and external to the project. Risks can be identified anytime during the life of the project. In most cases, risks are identified during meetings with the project team and/or business owners.

An initial assessment of the risk is performed to determine its applicability and relevance to the project. After the initial assessment, the basic information about the risk is entered into the Project Risk Matrix and an owner is assigned to analyze and determine an appropriate mitigation strategy.

3.7.2. Risk Analysis

Each risk is evaluated for its probability of occurrence, severity, timing, triggers, and relative impact to the project goals and commitments. The person assigned ownership of the risk analyzes it, validates the risk through additional research, confirms or updates the probability and impact. The risk owner may also recommend a proposed mitigation strategy or outline an action plan for preventing the risk event.

The overall ranking is defined as "probability/impact." Probability is an estimate of the likelihood that the risk will be realized. The impact is an estimate of the effect that the realized risk would have on the project success. Probability and impact scales and descriptors are defined at the beginning of the project, and are designed to reflect the acceptable levels of risks and provide a standard process for analyzing and assessing a risk event.

The combination of the probability and impact help the project team to identify the appropriate level of management for each risk. Figure 2 below provides guidance to determine the appropriate probability and impact ranking for risk events.

Figure 2: Risk Exposure Matrix

Risk Exposure						
Rating Legend						**Task/Milestone Status**

		Extremely Improbable	Low Likelihood	Likely	Highly Likely	Near Certainty	

Impact (rows) / Probability (columns):

Impact \ Probability	Extremely Improbable	Low Likelihood	Likely	Highly Likely	Near Certainty
Catastrophic	6	10	15	20	25
Serious	4	8	12	16	20
Major	3	5	9	12	15
Minor	2	4	6	8	10
Minimal	1	2	3	4	5

Task/Milestone Status

Indicates there is a **known** cost, schedule, or resource impact for the activity or category.

Indicates there is the **potential** for cost, schedule or resource impact for the activity or category.

Indicates the activity or category is **on track** for completion.

The risk owner coordinates with appropriate team members to evaluate the underlying cause of the risk. Estimating the probability and impact can be very subjective. Therefore, it is useful to involve experienced core team members or SMEs when assessing the risk ranking. The Project Manager, or their designee, updates the information in the Risk Matrix related to outcome of the risk analysis and assessment.

The highest priority risks are the most critical, and therefore require more effort to monitor. The prioritization of the risks is reviewed with the team and management to ensure that adequate resources and attention is being given to the risks with the greatest impact to the project's overall goals and commitments. The highest priority risks are communicated and reviewed with senior management.

3.7.3. Risk Mitigation and Response

Risk mitigations are decided based on the severity of the risk and the business case for mitigation. The severity of the risk is reflected in the risk ranking. Risks with major or maximum criticality are expected to compromise the critical path of the project if they occur. Therefore mitigation actions are required. Risks with lesser criticality may compromise a component of a project or a major function. Risk mitigation actions and responses are recommended; depending on the cost of the mitigation versus the exposure to the program feature, where cost is measured by any or all of the impact areas.

The PM coordinates with the project team to decide the mitigation and contingency strategies appropriate for their risks. The project team will attempt to define planned mitigation strategies for all identified risk events.

For those risks where mitigation actions are appropriate, an approach to mitigating the risk on the basis of its underlying causes is developed and documented in the Project Risk Matrix. The risk owner is responsible for the definition of the mitigation plan and for coordinating its execution. If required, a contingency or alternative action plan is generated for severe risks or risks that have complex or multi-threaded causes. The Project Manager, or designated project team member, updates the Risk Matrix with the required mitigation plan.

The risk owner also performs an impact assessment to determine if the mitigation plan will impact the project schedule and/or cost. The risk owner works with the Project Manager and team in performing any necessary re-planning activities that may be required for mitigating a risk.

3.7.4.   Risk Monitoring and Resolution

Risks are reviewed and discussed as needed at project team meetings. In reviewing the project risks, changes to their state are addressed as follows:

- **Risk is realized** – A realized risk becomes an issue. The Risk Matrix is updated to reflect current information regarding the realized risk. The project schedule is reviewed and appropriate re-planning activities are performed to accommodate the effects of the issue.

- **Risk is closed out or overcome by events: internal risks** – The risk that was identified does not come to fruition or is overcome by other events on the project. The Risk Matrix is updated to close the risk.

- **Risk is closed out or overcome by events: program-level risks** – The Project Manager will close out identified risks that did not come to fruition or were overcome by other events on the project. The Risk Matrix is updated to close the risk.

- **Changes to the status of an existing risk** – Events may occur during the life of the project that change the nature of a risk and its related consequence, and probability/impact ranking. This could include consolidating existing risks, and removing duplicative risks. The status of the risk is discussed and the Risk Matrix is revised accordingly.

3.7.5.   Risk Escalation Process

The Project Manager assigns the risk owner to resolve the identified risk. The Project Manager continually monitors mitigation plans and status of project risks. Any risk or issue that is not resolved in a timely manner (according to the Project Manager) is then escalated to the next level of management. If the risk cannot be resolved at the project level, the risk or issue should be elevated to the senior management level for consideration and action.

3.7.6.   Issue Management

Issues are risks that have achieved 100% probability, and have already been realized. The impact exists and cannot be avoided. While from a theoretical point of view they are not risks - mainly because the opportunity to prevent them is absent - for practical reasons, they are treated together with risks because one or more of the following reasons:

- There is a large degree of uncertainty related to the magnitude of impact of the already realized events;

- The events may happen again in the future;

- Impact can still be minimized through mitigation or a work around.

All issues are still monitored and reviewed with the client on a weekly basis. In addition, attempts continue to be made to resolve the issue. The impact of the issues and problems can be assessed on the same scale as that of risks to provide a prioritization. However, it is important to remember that their occurrence is a given.

Once a risk is realized past the assigned trigger date, it will be marked as an issue. Therefore the trigger date is no longer applicable to an Issue. A contingency plan is developed for all issues to be identified in the contingency column.

3.7.7. Risk Close Out

Risks can only be closed out by the Project Manager. Recommendations can come from the team through the following forums.

- • Weekly project meetings;
- • Updates to the Resolution/Notes field which includes a resolution by the Risk owner along with their initials and date.

The Project Manager analyzes the resolution to determine if it mitigates the risk and has the authority to close out the risk as appropriate. If needed, the Project Manager can also bring the risk for final review and close out at the weekly project meetings.

3.8. Change Management

<Describe the procedure for handling changes that may affect the production environment or service level agreements. Consider those factors that may affect multiple users and/or disrupt business critical services. Refer to the project's Change Control Plan for additional detail as needed.>

The purpose of Change Management is to establish and maintain integrity of systems products throughout the project lifecycle. CM identifies the configuration of the systems (e.g., selected work products and their description) at the beginning of a project and as it is updated at given points in time, systematically controlling changes to the configuration and maintaining the integrity and traceability of the configuration throughout the lifecycle.

The CM activities are defined and performed in accordance with the Change Control Plan.

3.9. Subcontractor Management

*<Describe the process for subcontractor management, including deployment planning for products and progress monitoring throughout the project's life cycle. Include references to **Service Level Agreements** (SLAs) in this section.>*

3.10. Process Improvement

<Describe the project's process improvement strategy. Include a methodology for ensuring successful project results. Consider benchmarking, product redesign, capability maturity assessment, or other relevant aspects of process improvement management.

At the end of each phase there should be a session with the stakeholders and/or project team to discuss lessons learned. If there is an opportunity to improve processes based on the lessons learned, then describe how this will be done. Each process improvement that was initiated as a result of a lesson learned should be tracked for status reporting and project closeout reporting.>

3.11. Project Close-Out

<Describe the activities for the orderly completion of the project, including staff reassignment, documenting lessons learned, post-mortem debriefings and reports, etc.>

4. TECHNICAL PROCESS PLANS

4.1. Method for Project Delivery

An information technology (IT) implementation project will consider various areas of systems development as required by the project scope. The Systems Development Life Cycle (SDLC) promotes solutions while adhering to strong governance and project management principles. The 6-phase process gives organizations the framework they need to implement multi-faceted IT projects using a streamlined project management approach. Each process phase is comprised of key actions and deliverables that lead to the next phase.

Please refer to the GHSC-PSM MIS System Development Life Cycle Handbook for detailed breakout of the SDLC and respective deliverables.

<The full scale System Development Life Cycle (SDLC) below will be applied for projects greater than $100,000 in value or with a life span equal to or greater than 5 years. Projects that fall below this, may customize their approach with COTR approval.>

Figure 3: Systems Development Lifecycle
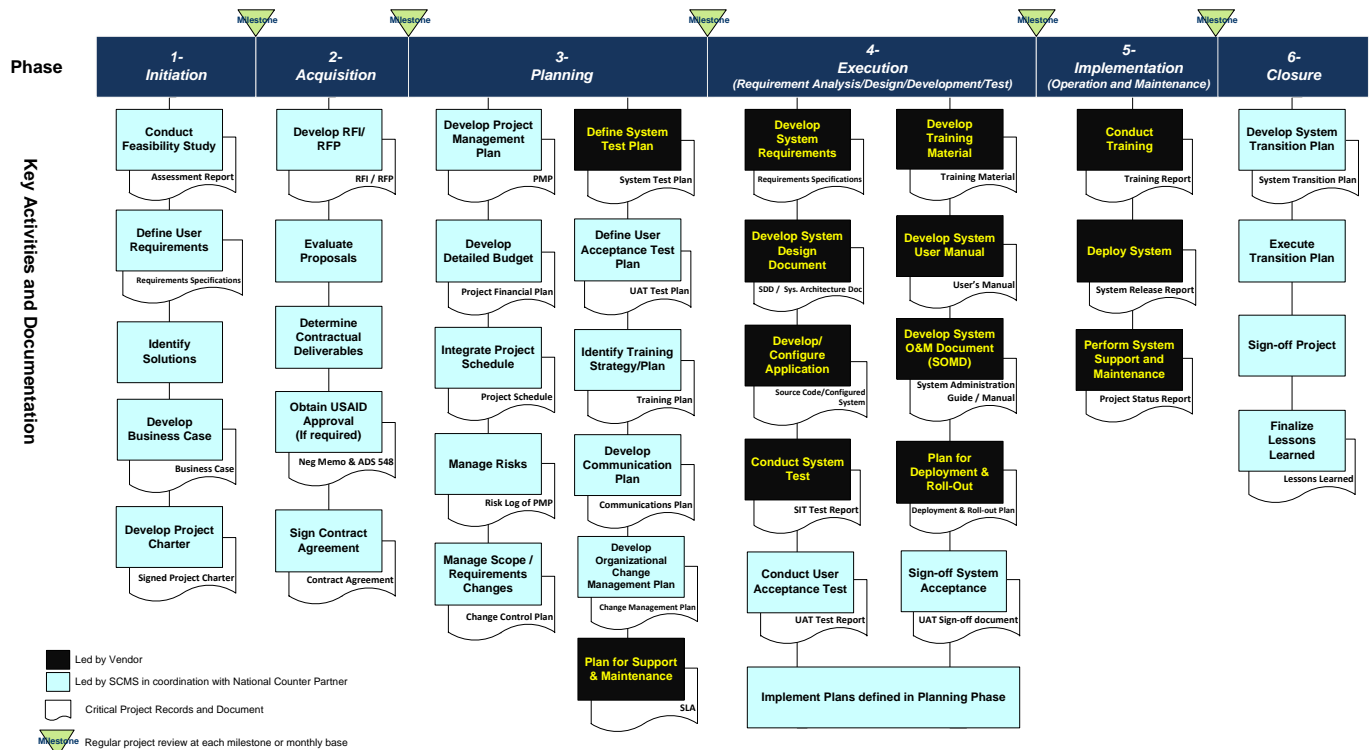
4.2. Description of SDLC Phases

4.2.1. Initiation

The Initiation phase starts with the Field Officer(s) identifying the needs to improve their information technology system(s) to strengthen its supply chain operation. Through the assessment exercise, it establishes a high-level view of the intended project and determines its goals. Gather end-users information needs.

4.2.2.   Acquisition

The Acquisition phase focuses on the procurement to acquire the needed system/product. The standard Request for Information (RFI) and/or Request for Proposal (RFP) are required for the acquisition process in accordance with the Federal Acquisition Regulation (FAR). The Project Management Office (PMO) contracting office plays a key role in the procurement to assure a successful acquisition.

4.2.3.   Planning

The Planning phase focuses on developing plans for all activities in order to manage the project throughout its project life cycle. A project kick-off meeting is general conducted to address objectives, organization structure, roles and responsibilities, schedule/milestones, processes and tools as well as to introduce team members to each other.

4.2.4.   Execution

The Execution phase consists of four sub-phases that focuses on the development and quality control of the specified system. These sub-phases are: Requirements Analysis, Design, Development, and Test.

4.2.4.1.   *Requirements Analysis*

The Requirement Analysis sub-phase focuses on refining project goals into defined functions and operation of the intended application and analyzing end-users information needs. The defined User Requirements and Operation Concept documents are primary source for the requirement decomposition analysis. In addition to the requirement analysis, training needs shall be identified. The development and operational facilities/environment should be planned as well.

4.2.4.2.   *Design*

The Design sub-phase focuses on the functional design of the system in accordance with the defined SRS and Use Cases document defined in previous phase. It describes desired features and operations in detail including system architecture, business rules, process flows and documentation. In addition to the functional design, system testing and release activities and training strategy should be planned.

4.2.4.3.   *Develop*

The Development sub-phase focuses on the development or configuration of the system, planning for testing and deployment. Developing source code and/or configure commercial off the shelf (COTS) applications and grouping all application (e.g. configuration control) into a specific test environment then check for errors, defects and interoperability are the primary activities. Training plan is developed by the vendor and approved by the FO/Government agency for training coordination and preparation. System tests should be executed in accordance with the defined STP and it focus on the functional verification prior to moving into the User Acceptance Test.

4.2.4.4.   *Test*

The Verification sub-phase focuses on the verification and validation of the as build system and deliverable documents to assure the system requirements and design specifications have been met. It is the final stage of

system development prior to deploying the system into a production and performing business operation. The UAT result is a critical go/no-go decision point prior to the system go-live.

4.2.5. Implementation

The Implementation phase focuses on the delivery of the system, system maintenance, and user support throughout the system life. It includes resolving changes, correction, addition or moves to a different computer operating platform. The FO/Government agency should develop transition plan to terminate or facing out any legacy system(s) after successfully implementing the system.

4.2.6. Closure

The Closure phase focuses on termination of the system or transition of the system to other contracting entity when the system is out of date or the GHSC-PSM contract expires.

4.3. Facilities, Environments, and Tools

<Customize paragraph below to reflect location(s) of the project team, and services provided to employees>

The project team is physically located in the *<vendor name>* facility (*<building name, if applicable>*) in *<geographic location>*. All *<vendor name>* and contractor employees are supplied with office space, telephone, personal computer (PC), Internet and email access by *<vendor name>*. All staff members also have access to printers, photocopying machines, and office supplies.

Table 11 below describes the required tools for implementing the *<Project Name>* system.

Table 11: Technical Environment

Facilities/Environments/Tools	Function
Large Capacity Server • *<specifications>*	Server for hosting high process/utilization applications.
Medium Capacity Server • *<specifications>*	Server for hosting normal process/utilization applications.
Small Capacity Server • *<specifications>*	Server for hosting low process/utilization applications.
Workstation / Laptop: Windows 7 Professional; 2.4 GHz processor; 4 GB RAM; 80 GB disk	Workstation /Laptop for project staff
Microsoft Visio	Map processes and illustrate environments.
<…>	

4.4. Project Infrastructure

<Describe the infrastructure that will be established for development, including necessary support where appropriate. This should identify details of each environment, with the exception of Production. This should include Development, Test, and Staging (if applicable). Please identify source code repositories, issue/error log tracking, and any additional services required per environment. It is recommended that an image of the environment is created and then explained at a high-level.>

Figure 4: Project Infrastructure

<Insert image of project infrastructure>

Text describing image …

Please see the System Architecture Document for additional details regarding the configuration of the production environment.

5. SUPPORTING PROCESS PLANS

5.1. Change Requests

Please reference the Change Control Plan for details regarding Change Requests.

5.2. Issue Resolution

Please reference the Change Control Plan and the System Test Plan for details regarding Issue Resolution.

5.3. Performance Measures

Please reference the Performance Management Plan for details regarding Performance Measures.

5.4. Asset Management

<Describe the process(es) and tool(s) for asset management in the project, including how products, equipment, licenses, warranties, and maintenance will be handled.>

5.5. Documentation

<Describe the process for documents management, including how the project will create and update required software, design, development, and related documents. Figure 5 below illustrates a sample document management process.>

Figure 5: Documentation Management Process (optional)
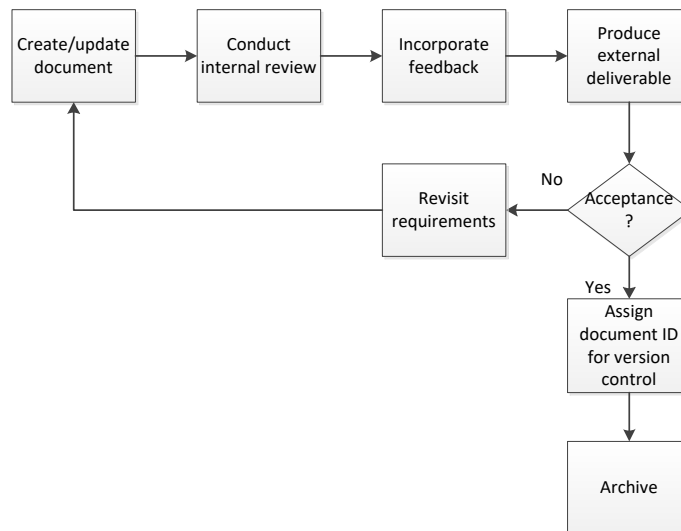
5.6. Operations and Maintenance

Please see the System Administration Guide / Manual for details regarding operations and maintenance.

6. ADDITIONAL PLANS

<List and provide additional details regarding other plans inside or outside of the SDLC that are relevant and applicable to the project.>

APPENDIX A: ACRONYMS AND DEFINITIONS

Table 12: Acronyms and Definitions

Acronym	Definition
C&A	Certification & Accreditation
CCB	Configuration Change Board
CCP	Change Control Plan
CM	Configuration Management
COB	Close of Business
COTR	Contracting Officer Technical Representative
COTS	Commercial Off the Shelf
ET	Eastern Time
FAR	Federal Acquisition Regulation
HQ	Headquarters
JAD	Joint Application Development
MIS	Management Information System
PM	Project Manager
PMO	Project Management Office
PMP	Project Management Plan
RFI	Request for Information
RFP	Request for Proposal
GHSC-PSM	Supply Chain Management System
SDLC	Systems Development Lifecycle
SLA	Service Level Agreement
SME	Subject Matter Expert
SOW	Statement of Work
STP	System Test Plan
UAT	User Acceptance Test
WBS	Work Breakdown Structure

APPENDIX B: STAFFING ROLE TO SKILL MATRIX

<List out the roles from section 2.1 and map those to the required skillset and software (in section 4.3) to create a staffing role to skill matrix.>

Table 13: Staffing Role to Skill Matrix

	Program Manager	Project Manager	Configuration Manager	Chief Systems Engineer	Security Member	Requirements Member	Systems Implementation Member	Test Member
MS Office Tools	X	X	X	X	X	X	X	X
<List PM Tools/Tech>	X	X	O	O	O	O	O	O
<List Requirements Tools/Tech>						X		
<List Design Tools/Tech>				X			X	
<List Develop Tools/Tech>				O			X	
<List Test Tools/Tech>								X
<List Security Tools/Tech>					X			

Key	
X	Required Skill/Capability
O	Optional Skill/Capability

APPENDIX C: RISK MATRIX TEMPLATE

<Identify the structure and the fields required for managing risk. Identify how risks are managed (e.g. MS Word, MS Excel, an online tool, etc.)>

The following fields will be collected to track and manage risks associated with the project:

- **ID:** Unique ID for Risk;
- **Risk Description:** Description of the risk. Provide enough details to describe the risk and the impact of the risk if realized;
- **Trigger:** Describe the parameters or events which will change the risk to an issue that requires resolution;
- **Probability:** An estimate of the likelihood that the risk will be realized. Acceptable values are: Extremely Improbable, Low Likelihood, Likely, Highly Likely, Near Certainty. See Figure 2 for additional details;
- **Impact:** An estimate of the effect that the realized risk would have on the project success. Acceptable values are: Minimal, Minor, Major, Serious, Catastrophic). See Figure 2 for additional details;
- **Mitigation Plan:** Describe steps that will be taken to reduce the probability of the risk from being realized;
- **Critical Dependencies:** Identify the services that would be affected if the risk were to be realized;
- **Contingency:** Should the risk be realized and become an issue, describe the plans to keep the affected operations moving forward with minimal impact while the new issue is addressed;
- **Date Identified:** Day on which the risk was identified.

Risks are managed using <sate tool used to manage risks>.

Table 14: Risk Matrix Template

ID	Risk Description	Trigger	Probability	Impact	Mitigation Plan	Critical Dependencies	Contingency	Date Identified
1.								
2.								
3.								

APPENDIX D: ISSUE LOG TEMPLATE

<Identify the structure and the fields required for managing issues. Identify how issues are managed (e.g. MS Word, MS Excel, an online tool, etc.)>

The following fields will be collected to track and manage issues associated with the project:

- **ID:** Unique ID for Risk;

- **Issue Description:** Description of the issue. Provide enough details to describe the issue and the steps to repeat, if applicable;

- **Severity:** Severity of issue. Acceptable values are: Critical, Severe, Moderate, Minor. See Change Control Plan for additional details;

- **Priority:** Priority of issue. Acceptable values are: High, Medium, Low. See Change Control Plan for additional details;

- **Assignee:** Person to whom the issue is assigned;

- **Resolution Date:** Date by which issue should be resolved;

- **Status:** Status of the issue. Acceptable values are: Submitted=Submitted to PM/CCB for consideration, Duplicate, Postpone, Assigned = Allocated for Development, Opened = Development in Progress, Resolved, Ready for Build = Unit tested & ready for build, Ready for Test, Closed;

- **Date Identified:** Date on which the risk was identified;

- **Comments:** Comments related to resolution of the issue.

Issues are managed using <sate tool used to manage issues>.

Please reference the Change Control Plan and the System Test Plan for details regarding Issue Resolution.

Table 15: Issue Log Template

ID	Issue Description	Severity	Priority	Assignee	Resolution Date	Status	Date Identified	Comments
1.								
2.								
3.								

APPENDIX E: ACTION ITEM LIST TEMPLATE

<Identify the structure and the fields required for managing action items. Identify how action items are managed (e.g. MS Word, MS Excel, an online tool, etc.)>

The following fields will be collected to track and manage action items associated with the project:

- **ID:** Unique ID for Action Item;

- **Action Item Description:** Description of action item;

- **Date Identified:** Date on which the action was identified;

- **Due Date:** Date on which the action item is due;

- **Assignee:** Person to whom the action item is assigned;

- **Status:** Status of the action item. Acceptable values are: Open, In Progress, Postponed, Duplicate, Closed;

- **Comments:** Comments related to resolution of the action item.

Action items are managed using <sate tool used to manage action items>.

Table 16: Action Item List Template

ID	Action Item Description	Date Identified	Due Date	Assignee	Status	Comments
1.						
2.						
3.						