**EZ-Maintenance Project**

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**Van Horn Solutions**

**Better Results with AI**

**April 23, 2024**

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Abstract developed with ChatGPT

The EZ-Maintenance Project aims to develop a comprehensive piece of software tailored for on-site service technicians. This software will facilitate the tracking of customers, time, and materials through various modules within a single mobile application. Each module will serve a distinct function, enhancing efficiency and organization for service technicians in the field. This project seeks to address the challenges faced by technicians in managing their tasks and resources, ultimately improving service delivery and customer satisfaction.

**Business Case**

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* **Executive Summary**

This business case outlines how the EZ-maintenance Project will address current business concerns, the benefits of the project, and recommendations and justification of the project. The business case also discusses detailed project goals, performance measures, assumptions, constraints, and alternative options.

* Issue

Site maintenance personnel need to be able to focus on problem-solving. Logistics cost these personnel a lot of time. The skills required for a good troubleshooting expert can be very different from those involved in things like billing, inventory, and similar logistics.

* Anticipated Outcomes

The anticipated outcome is a comprehensive app that automates the repetitive, time-consuming responsibilities of the maintenance workers. This app should benefit the business by increasing the billable hours of maintenance and increasing their efficiency which will translate into higher profits and easier onboarding.

* Recommendation

This project will address the problem by creating an app that helps manage logistics for field workers. Desirable results will be achieved by introducing the elements of the app one at a time in an agile methodology. Each step of the process will be accompanied by a trial period to assess the functionality and the concerns of the maintenance workers.

* Justification

This project should be implemented because it will be industry specific. Alternatives will be generalized use-cases, where this option will be tailored to the industry from the beginning and will improve efficiency accordingly.

* **Business Case Analysis Team**

|  |  |  |
| --- | --- | --- |
| **Role** | **Description** | **Name/Title** |
| Executive Sponsor | Provide executive support for the project | Kayla, Rada, CEO |
| Technology Support | Provides all technology support for the project | Clayton DeSimone, Head Developer |
| Process Improvement | Advises team on process improvement techniques | Tyler Coenen, Process Team Lead |
| Project Manager | Manages the business case and project team | Zach Nikkel, Project Manager |
| Software Support | Provides all software support for the project | Paul Morgan, Software Group Lead |

* **Problem Definition**
* Problem Statement

The business problem that this project is intended to address is as follows: too much of the on-site service industry workload is dedicated to repetitive logistics that don’t cost much labor time or involve high skilled work. The field workers should not have to spend their time and energy categorizing their labor and materials or planning their routes.

* Organizational Impact

The proposed project will affect the organizational processes by cutting out the unskilled labor involved in site visitation. This streamlining should allow for more field workers to be brought on board since less paid time will be dedicated to the menial tasks. Retention and worker satisfaction should also increase since the actual work in the field will more closely reflect the job description.

* Technology Migration

The migration process will involve both office staff and field workers. Filling out the database of customer information, materials and training information will involve an up-front labor cost. If users are migrating from similar software the tool will be able to automate the migration and handle most edge-cases. If the user is moving from pen and paper, the process will be more involved as documentation will need to be scanned and more manual data entry will be required. Users will also need to be provided with a device capable of interacting with the app.

* **Project Overview**

This program will consist of several free-standing elements. The training module, the customer management module, the inventory and billing module, and the mapping module.

* Project Description

This project will consist of an app, a database, and a server. The field workers will have access to the app to interact with the server and database that will be relatively lightweight so that their clients can be inexpensive devices. Administrators will be able to alter the database structure and create quiz and training materials with the field workers having access to that information and limited database modification abilities.

* Goals and Objectives

|  |  |
| --- | --- |
| **Business Goal/Objective** | **Description** |
| Timely and accurate reporting | App based tool will allow real-time and accurate reporting of all payroll and administrative metrics |
| Improve staff efficiency | Fewer hours spent on logistics allow for more field worker positions |
| Reduce employee turnover | Greater autonomy and flexibility will address employee concerns and allow managers to focus on billable tasks |
| Reduce overhead costs | Fewer staff hours will help maximize billable time |

* Project Performance

|  |  |
| --- | --- |
| **Key Resource/Process/Service** | **Performance Measure** |
| Reporting | The app-based system will reduce reporting discrepancies (duplicates and gaps) and require reconciliation every 6 months instead of monthly. |
| Timesheet/Admin data entry | Eliminate managers’ non-billable work by allowing employees to enter their data directly. |
| Software and System Maintenance | Decrease in cost and staff requirements as system maintenance will be reduced from once every month to once every 6 months with the new system. |
| Staff Resources | Increase field staff positions |

* Project Assumptions

Project assumptions are as follows. High internet availability across the service area. Field staff have basic technological skills. Business falls within the target customer base.

* Project Constraints

The preliminary constraints of the proposed project are as follows: The front end needs to be accessible with mobile devices. The modules need to be clearly delineated. The server and database need to be secure and should ideally be local. The backend should also be lightweight to minimize server costs.

* Major Project Milestones

|  |  |
| --- | --- |
| **Milestones/Deliverables** | **Target Date** |
| Project Charter | 01/01/20xx |
| Project Plan Review and Completion | 03/01/20xx |
| Project Kickoff | 03/10/20xx |
| Phase I Complete | 04/15/20xx |
| Phase II Complete | 06/15/20xx |
| Phase III Complete | 08/15/20xx |
| Phase IV Complete | 10/15/20xx |
| Phase V Complete | 12/15/20xx |
| Closeout/Project Completion | 12/31/20xx |

* **Strategic Alignment**

|  |  |  |
| --- | --- | --- |
| **Plan** | **Goals/Objectives** | **Relationship to Project** |
| 20xx VanHorn Solutions Field work management | Improve record keeping and information management | This project will allow for real-time information and data entry, increased information accuracy, and a consolidated repository for all payroll and administrative data |
| 20xx VanHorn Solutions Field work management | Create new technology to support company and department missions more effectively | New technology will allow many payroll and administrative functions to be automated reducing the levels of staff required to manage these systems |
| 20xx VanHorn Solutions Strategic Plan for Human Capital | Engage the workforce and improve employee retention | This project allows the employee to take an active role in managing his/her payroll and administrative elections |

* **Cost Benefit Analysis**

|  |  |  |  |
| --- | --- | --- | --- |
| **Action** | **Action Type** | **Description** | **First year costs (- indicates anticipated savings)** |
| Create new app platform | Cost | Initial investment for Project | $400,000.00 |
| Software installation and training | Cost | Cost for IT group to install new software and for the training group to train all employees | $100,000.00 |
| Increase staff by 3 employees | Savings | An immediate reduction in overhead equal to the annual salary of 3 HR specialists and 2 payroll analysts. | -$183,495.00 |
| Field workers no longer required to work non-billable payroll and administrative tasks | Savings | Field workers currently average 16 hours per week non-billable time. It is anticipated that this number will be reduced to no more than 2 hours per week. At an average of $36.00 per hour this results in ($36.00 x 14 hours/wk reduced non-billable time x 18 managers) $9072.00 increased revenue per week. | -$471,744.00 |
| System maintenance required every 6 months instead of monthly | Savings | Less frequent use of IT resources working on non-value added tasks results in approximately $42,000 savings per year. | -$42,000 |
| Reduce employee turnover by 10% | Savings | Savings in cost to out-process exiting employee and recruit, hire, and train new employees is approximately $50,000 in the first year. | -$50,000 |
| **Net First Year Savings** |  |  | **$247,239.00** |

* **Alternatives Analysis**

|  |  |
| --- | --- |
| **No Project (Status Quo)** | **Reasons For Not Selecting Alternative** |
| Keep the legacy system in place | * Unnecessary expenditure of funds for increased staffing levels * Continued occurrence of a high number of data errors * Poor and untimely reporting * Lack of automation |
| **Alternative Option** | **Reasons For Not Selecting Alternative** |
| Outsource the implementation of a web-based platform | * Significantly higher cost * Expertise already exists in house * Vendor’s lack of familiarity with our internal requirements |
| **Alternative Option** | **Reasons For Not Selecting Alternative** |

**Proposal**

Introduction:

The EZ-Maintenance Project aims to revolutionize the way on-site service technicians manage their tasks and resources through the development of a comprehensive mobile application. This project is of significant importance to Van Horn Solutions as it addresses the challenges faced by service technicians in the field, enhances operational efficiency, and ultimately improves customer satisfaction.

Objectives:

* Improve efficiency for service technicians by automating repetitive tasks and streamlining logistical processes.
* Enhance customer satisfaction by providing timely and accurate service delivery.
* Maximize profitability for Van Horn Solutions by increasing billable hours and reducing overhead costs.

Scope:

The project will encompass the development of four main modules within a single mobile application:

* Employee Management and Training: This module will allow for the management of employee details and enable workers to access training materials and quizzes.
* Route Planning and Mapping: This module will facilitate route planning and mapping for customer addresses, optimizing driving routes between locations.
* Customer Management: This module will be dedicated to managing customer details, including information about their physical property, billing history, and other relevant data.
* Billing and Bookkeeping: The final module will handle billing, timekeeping, ordering supplies, and other bookkeeping tasks essential for efficient operations.

Deliverables:

* Completed mobile application with four functional modules.
* Implemented database system to store employee and customer information.
* Training materials and documentation for employees on app usage and procedures.

Timeline:

The project will commence in June 2024 and run until the end of July 2024, with the following major milestones:

* June 27: Development of app modules and database implementation.
* July 15: Testing and refinement of app functionalities.
* July 23: Deployment of final app version and training for employees.

Resources:

Personnel:

* Development team:(Paul Morgan, Clay Desimone, Tyler Coenen, Peter Van Horn) Frontend and backend developers, UI/UX designers, quality assurance testers.
* Project managers:(Kayla Rada, Zach Nikkel) Responsible for overseeing the project and coordinating team efforts.
* Technology:
* Software development tools and platforms.
* Database management systems.
* Mobile device testing and deployment infrastructure.

Budget:

* Funding allocated for development costs, software licenses, and personnel salaries.

Benefits:

* Increased productivity and efficiency for service technicians.
* Enhanced customer satisfaction through improved service delivery.
* Cost savings and competitive advantage for Van Horn Solutions.

**Project Charter Plan**

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**Executive Summary**

Small business often rely on antiquated systems for data management, onboarding and training of employees. These practices create inefficiencies and frustration within the business and represent needless work. The EZ-Maintenance project has been created to address and correct these issues. The project will integrate several small business focused applications into a single platform. Implementation of this project will free up funds for increased employee benefits or more staff.

**Project Purpose/Justification**

Business Need/Case

The EZM project has been created to decrease organizational inefficiencies in order to improve employee retention and satisfaction. The costs of implementation will be recovered from the fee associated with businesses using the application as well as advertising revenue.

Business Objectives

The business objectives for this project are to improve quality of life, salaries, and efficiency within small business.

* Design and test a new IT infrastructure within the next 90 days
* Complete implementation the new IT infrastructure within the next 120 days
* Increase employee retention by 30% within the first year

**Project Description**

The EZM project will provide increased efficiency and worker retention for small business. The EZM project will utilize improved technology in the form software in order to streamline data management and training tasks. All software will be integrated into a single application accessible via the internet.

Project Objectives and Success Criteria

The objectives which mutually support the milestones and deliverables for this project have been identified. In order to achieve success on the EZM project, the following objectives must be met within the designated time and budget allocations:

* Complete list of required hardware/software which meets budget allocation within the next 25 days
* Create a simulated solution in the IT lab using all purchased hardware and software to test the solution within the next 60 days
* Achieve a simulated solution and complete testing within the next 90 days
* Implement the solution within the next 120 days

Requirements

This project must meet the following list of requirements in order to achieve success.

* The solution must be tested in the IT lab prior to deployment
* Solution must be implemented

Additional requirements may be added as necessary, with project sponsor approval, as the project moves forward.

Constraints

The following constraints pertain to the EZM project:

* All software must be compatible with current mobile platforms
* Two IT specialists and one security specialist will be provided as resources for this project

Assumptions

The following are a list of assumptions. Upon agreement and signature of this document, all parties acknowledge that these assumptions are true and correct:

* This project has the full support of the project sponsor, stakeholders, and all departments
* The purpose of this project will be communicated throughout the company prior to deployment
* The IT manager will provide additional resources if necessary

Preliminary Scope Statement

The EZM project will include the design, testing, and delivery of a data management application to a small business. All personnel and software resources will be managed by the project team. All project work will be the focus of daily and ongoing operations and all required testing will be done in the IT laboratory. All project funding will be managed by the project manager up to and including the allocated amounts in this document. Any additional funding requires approval from the project sponsor. This project will conclude when the final report is submitted within 30 days after the solution is tested and deployed, all technical documentation is complete and distributed to the appropriate personnel, and a list of future considerations is complete and submitted to the VP of Technology.

**Risks**

The following risks for the EZM project have been identified. The project manager will determine and employ the necessary risk mitigation/avoidance strategies as appropriate to minimize the likelihood of these risks:

* Potential for non-adoption among small business

**Project Deliverables**

The following deliverables must be met upon the successful completion of the EZM project. Any changes to these deliverables must be approved by the project sponsor.

* Fully deployed solution
* Technical documentation for solution

**Summary Milestone Schedule**

The project Summary Milestone Schedule is presented below. As requirements are more clearly defined this schedule may be modified. Any changes will be communicated through project status meetings by the project manager.

|  |  |
| --- | --- |
| **Summary Milestone Schedule – List key project milestones relative to project start.** | |
| **Project Milestone** | **Target Date** |
| * Project Start | 06/03/2024 |
| * Complete Solution Design | 06/19/2024 |
|  |  |
| * Complete Solution Simulation with New Software | 07/04/2024 |
| * Complete Solution Simulation and Testing | 07/15/2024 |
| * Deploy Solution | 07/23/2024 |
| * Project Complete | 08/05/2024 |

**Summary Budget**

The following table contains a summary budget based on the planned cost components and estimated costs required for successful completion of the project.

|  |  |
| --- | --- |
| **Summary Budget – List component project costs** | |
| **Project Component** | **Component Cost** |
| * Personnel Resources | $151,000 |
| * Hardware | $0 |
| * Software and Licensing | $0 |
| * IT Lab Preparation | $15,000 |
| **Total** | **$180,000** |

**Project Approval Requirements**

Success for the EZM project will be achieved when a fully tested solution, and all technical documentation, is fully deployed within the time and cost constraints indicated in this charter. Additionally, this measure of success must include a recommendation list for future considerations as we fully anticipate the necessity of this solution to evolve to meet future needs. Success will be determined by the Project Sponsor, Ms. Kayla Rada, who will also authorize completion of the project.

**Project Manager**

Zack Nikkel is named Project Manager for the duration of the EZM Project. Mr. Nikkel 's responsibility is to manage all project tasks, scheduling, and communication regarding the EZM project. His team, consisting of two IT specialists and one security specialist, will be matrix support from the IT department. Mr. Nikkel will coordinate all resource requirements through the IT department manager, Clayton DeSimone. Mr. Nikkel is authorized to approve all budget expenditures up to, and including, the allocated budget amounts. Any additional funding must be requested through the Project Sponsor, Kayla Rada. Mr. Nikkel will provide weekly updates to the Project Sponsor.

**Project Brief**

Project Overview:

The EZ-Maintenance Project aims to develop a comprehensive mobile application tailored for on-site service technicians at Van Horn Solutions. This application will streamline logistical processes, automate repetitive tasks, and enhance operational efficiency for service technicians in the field.

Key Objectives:

* Improve efficiency for service technicians by automating repetitive tasks and streamlining logistical processes.
* Enhance customer satisfaction through timely and accurate service delivery.
* Maximize profitability for Van Horn Solutions by increasing billable hours and reducing overhead costs.

Scope:

The project will involve the development of four main modules within the mobile application:

* Employee Management and Training
* Route Planning and Mapping
* Customer Management
* Billing and Bookkeeping

Timeline:

The project is scheduled to commence in June 2024 and conclude in July 2024, with major milestones and deliverables outlined accordingly.

Key Deliverables:

* Completed mobile application with four functional modules.
* Implemented database system to store employee and customer information.
* Training materials and documentation for employees on app usage and procedures.

Resources:

* Personnel: Development team, project manager, technology support.
* Technology: Software development tools, database management systems, mobile device testing infrastructure.
* Budget: Allocated funding for development costs, software licenses, and personnel salaries.

Benefits:

* Increased productivity and efficiency for service technicians.
* Enhanced customer satisfaction through improved service delivery.
* Cost savings and competitive advantage for Van Horn Solutions.

**Scope Statement**

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**Introduction**

This Project Scope Statement serves as a baseline document for defining the scope of the EZ-Maintenance Project, project deliverables, work which is needed to accomplish the deliverables, and ensuring a common understanding of the project’s scope among all stakeholders. All project work should occur within the framework of the project scope statement and directly support the project deliverables. Any changes to the scope statement must be vetted through the approved Project Change Management Process prior to implementation. The completion date for this project is August 9, 2024.

**Project Purpose and Justification**

The EZM Project has been approved to plan, design, build, and implement a new training and data management system. The purpose of this project is to streamline the onboarding and continued learning process as well as provide a powerful tool for field staff. Many small companies rely on pencil and paper methods of data tracking and using management time for basic training purposes. As a result, time and efficiency are compromised. By implementing the EZM Project, small companies can better leverage their workers’ time and cut out frustrating waste. This will allow these companies to hire more staff and expand their services while minimizing overhead. The successful implementation of this project is expected to increase the average small business employment rate by 30%.

**Scope Description**

The scope of the EZM Project is to plan, design, build, and implement an all-purpose tool that will include a quiz-based training platform, a customer database access tool, an ordering and requisitions tool, and other billing and logistics platforms that branch from one central app.

**High Level Requirements**

The EZM tool has been approved to meet a business need. To meet this business need there are several requirements which must be met as part of the successful execution of this project. The following high-level requirements have been identified for the EZM Project:

* Database platform with access granted to all employees.
* Accessible from office or remotely
* Program template tool to ensure all program dashboards are consistent.
* Ability to maintain tools internally without contract support.

**Boundaries**

The EZM Project includes all work associated with planning, designing, building, and implementing the EZM Tool. This includes requirements gathering, gathering input from all departments, conceptual and technical design and coding work, server configuration, testing, troubleshooting, and deployment of the EZM Tool. This also includes training manuals and materials associated with operating the tool. Not included in the scope of this project are ongoing maintenance of the system, implementing commercial database products, ongoing help desk and/or service support, or hardware/software upgrades.

**Strategy**

For the EZM Project strategy, the project team will leverage the expertise of several database developers from the VanHorn Solutions group. These experts will be in matrixed support as part of the project team. They will aid the project manager and other team members in conceptual and technical design, coding, server configuration, testing and troubleshooting, and deployment. The project manager will ensure that the IT experts incorporate all input from stakeholders and gathered requirements.

**Deliverables**

There are several deliverables which will be produced because of the successful completion of the EZM Project. If all of the following deliverables are not met, then the project will not be considered successful. The Project Manager is responsible for ensuring the completion of these deliverables.

* Deliverable 1 – A tested and operational EZM tool free of errors and meeting the specifications described in the Project Scope Description
* Deliverable 2 – A tested and operational Program template tool (as part of the EZM) which allows users to enter data and metrics in a consistent manner.
* Deliverable 3 – A complete and thorough user’s manual which provides step by step instructions on how to use the EZM tool for users of all permission levels.
* Deliverable 4 – A complete and thorough troubleshooting guide which provides corrective steps to users of all permission levels for all anticipated problems.

**Acceptance Criteria**

Acceptance criteria have been established for the EZM Project to ensure thorough vetting and successful completion of the project. The acceptance criteria are both qualitative and quantitative in nature. All acceptance criteria must be met to achieve success for this project:

* Meet all deliverables within scheduled time and budget tolerances.
* Increase employee retention by at least 30%.
* Increase employed staff by at least 30%.
* Accomplish an overall performance improvement in program metrics.

**Constraints**

Several constraints have been identified for the EZM Project. It is imperative that considerations be made for these constraints throughout the project’s lifecycle. All stakeholders must remain mindful of these constraints as they must be carefully planned to prevent any adverse impacts to the project’s schedule, cost, or scope. The following constraints have been identified for the EZM Project:

* IT experts will only work 50% of the billable hours on this project.
* Project manager will only work 75% of billable hours on this project.
* The Project Manager working only 75% of billable hours on this project is adequate to complete the project by August 9, 2024
* The EZM Project has full support from senior management across all departments within VanHorn Solutions

**Cost Estimate**

The estimated costs for this project are included in the table below. As the project proceeds and any additional costs become known, this cost estimate will be refined and communicated to all project stakeholders.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Expense** | **Estimated Budget** | **Expended to Date** | **Estimate to Complete** | **Variance** |
| Labor |  |  |  |  |
| Internal | $500,000 | $144,000 | $370,000 | +/- $4,000 |
| External | $45,000 | $32,000 | $13,000 | +/- $6,000 |
| Software | $20,000 | $13,000 | $10,000 | +/- $6,000 |
| Hardware | $50,000 | $50,000 | $0 | +/- $1,000 |
| Other | $57,000 | $7,000 | $45,000 | +/- $500 |
| Total | $672,000 | $246,000 | $438,000 | +/- $60,000 |

**Cost Benefit Analysis**

A cost benefit analysis has been performed for the EZM Project. The successful completion of this project will provide significant benefits to small business. It is imperative that all stakeholders understand these benefits as well as the importance of the successful completion of this project. The table below shows a net benefit of -$465,000 over one year after successful completion of the EZM Project. This is a total benefit of -$258,000 if no project is done and schedule delays, cost overruns, and poor resource allocation continue.

|  |  |  |
| --- | --- | --- |
|  | With PMD Project | Without PMD Project |
| Costs of Project |  |  |
| Recurring Cost | $0 | $0 |
| Non-Recurring Cost | $672,000 | $0 |
| Capital Costs | $0 | $0 |
| **Total Cost of EZM Project** | **$**672,000 | **$0** |
|  |  |  |
| Benefits (1 year) |  |  |
| Reduce Delays by 30% | $15,000 | -$15,000 |
| Reduce Overruns by 30% | $170,000 | -$170,000 |
| Improve Resource Allocation | $22,000 | -$22,000 |
| **Total Benefits of EZM Project** | **$207,000** | **-$207,000** |
|  |  |  |
| **Net Benefits of EZM Project** | -$465,000 | -$207,000 |
|  |  |  |

**Team Charter**

Project Manager:

Name: Zach Nikkel

Responsibilities:

* Oversee project planning, execution, and closure.
* Coordinate team efforts and communication.
* Ensure project objectives are met within scope, timeline, and budget constraints.

Development Team:

Name: Paul Morgan, Peter Van Horn

Responsibilities:

* Design and develop the mobile application and database system.
* Test and refine app functionalities to ensure optimal performance.
* Provide ongoing support and maintenance as needed.

Technology Support:

Name: Clayton DeSimone

Responsibilities:

* Provide technical support for software development tools and platforms.
* Manage database systems and infrastructure.
* Ensure compatibility and integration with existing systems.

Process Improvement Advisor:

Name: Tyler Coenen

Responsibilities:

* Advise the team on process improvement techniques and methodologies.
* Identify areas for optimization and efficiency enhancement.
* Facilitate continuous improvement initiatives throughout the project lifecycle.

Software Support:

Name: Paul Morgan

Responsibilities:

* Provide software support for the development team.
* Troubleshoot and resolve technical issues related to the mobile application.
* Collaborate with technology support for system maintenance and updates.

Roles and Responsibilities:

Clearly define roles and responsibilities for each team member, ensuring clarity and accountability throughout the project.

Communication Plan:

Establish guidelines for communication among team members and project stakeholders, including frequency, channels, and protocols.

Conflict Resolution:

Define a process for resolving conflicts and addressing issues that may arise during the project, ensuring a collaborative and productive team environment.

Resource Allocation:

Identify and allocate resources required for project execution, including personnel, technology, and budget.

Signatures:

Project Manager

Development Team Members

Technology Support

Process Improvement Advisor

Software Support

**Work Breakdown Structure (WBS)**

**Introduction**

The Work Breakdown Structure presented here represents all the work required to complete this project.

**Outline View**

* EZ-Maintenance Project
* Gather Data
* Evaluation & Recommendations
* Assess stakeholders
* Market Research
* Project Sponsor Reviews Data
* Project Charter Signed/Approved
* Create charts
* Create gantt chart
* Create Pert Chart
* Create WBS
* Create Network Diagram
* Create Budget
* Initialize EVM
* Select subcontractors
* Finalize scope
* Determine platform/technologies
* Write Proposal
* Consolidate project progress
* Formalize budget
* Develop stakeholder presentation
* Update Project Management Plan
* Meet Stakeholders
* Implement presentation
* Gather feedback/concerns
* Update Files/Records
* Present to Project sponsor
* Create Plan
* Reassess gantt chart and pert diagram
* Assign tasks to groups
* Update Project Management Plan
* Brief entire team
* Present to project sponsor
* Final plan approved
* Schedule work
* Establish Deadlines
* Gather teams
* Publish schedule
* Begin Development
* Create scaffolding
* Assign modules
* Environment preparation
* Setup
* Module 1
* Create scaffolding
* Develop framework
* Generate test data
* Testing
* Module 2
* Develop framework
* Generate test data
* Testing
* Unify Modules
* Module one scaffolded
* Module two scaffolded
* Project testing
* Update Project Management Plan
* Module 3
* Develop framework
* Generate test data
* Testing
* Module 4
* Develop framework
* Generate test data
* Testing
* Unify Modules
* Module three scaffolded
* Module four scaffolded
* Project testing
* Update Project Management Plan
* Unify Project
* Update testing data
* Install on testing hardware
* Project testing
* Feedback period
* Deploy project in limited testing environment
* Gather feedback
* Implement minor changes
* Modifications
* Plan major modifications
* Implement major changes
* Re-install on testing hardware
* Test major changes
* Training
* Combine documentation
* Finalize manuals/help materials
* Hire help line staff
* Wrap up
* Whole team meeting
* Break down failures successes
* Document learning
* Present to stakeholders
* Present to sponsor
* Complete!

**Hierarchical Structure**

|  |  |  |
| --- | --- | --- |
| Level | WBS Code | Element Name |
| 1 | 1 | EZ-Maintenance Project |
| 2 | 1.1 | Gather Data |
| 3 | 1.1.1 | Evaluation and recommendations |
| 3 | 1.1.2 | Assess stakeholders |
| 3 | 1.1.3 | Market Research |
| 3 | 1.1.4 | Project Sponsor Reviews Data |
| 3 | 1.1.5 | Project Charter Signed/Approved |
| 2 | 1.2 | Create Charts |
| 3 | 1.2.1 | Create Gantt chart |
| 3 | 1.2.2 | Create Pert diagram |
| 3 | 1.2.3 | Create WBS |
| 3 | 1.2.4 | Create network diagram |
| 2 | 1.3 | Create Budget |
| 3 | 1.3.1 | Initialize EVM |
| 2 | 1.3.2 | Select subcontractors |
| 3 | 1.3.3 | Finalize scope |
| 3 | 1.3.4 | Determine platform/technologies |
| 2 | 1.4 | Write Proposal |
| 3 | 1.4.1 | Consolidate project progress |
| 3 | 1.4.2 | Formalize budget |
| 3 | 1.4.3 | Develop stakeholder presentation |
| 3 | 1.4.4 | Update project management plan |
| 2 | 1.5 | Meet Stakeholders |
| 3 | 1.5.1 | Present |
| 3 | 1.5.2 | Gather feedback/concerns |
| 3 | 1.5.3 | Update Records |
| 3 | 1.5.4 | Present to sponsor |
| 2 | 1.6 | Create Plan |
| 3 | 1.6.1 | Reassess gantt |
| 3 | 1.6.2 | Assign tasks |
| 3 | 1.6.3 | Update project management plan |
| 3 | 1.6.4 | Brief team |
| 3 | 1.6.5 | Present to sponsor |
| 3 | 1.6.6 | Final plan approved |
| 2 | 1.7 | Schedule Work |
| 3 | 1.7.1 | Establish Deadlines |
| 3 | 1.7.2 | Gather teams |
| 3 | 1.7.3 | Publish schedule |
| 2 | 1.8 | Begin Development |
| 3 | 1.8.1 | Create scaffolding |
| 3 | 1.8.2 | Assign modules |
| 3 | 1.8.3 | Environment preparation |
| 3 | 1.8.4 | Setup |
| 2 | 1.9 | Module 1 |
| 3 | 1.9.1 | Create scaffolding |
| 3 | 1.9.2 | Develop framework |
| 3 | 1.9.3 | Generate test data |
| 3 | 1.9.4 | Testing |
| 2 | 2.1 | Module 2 |
| 3 | 2.1.1 | Develop framework |
| 3 | 2.1.2 | Generate test data |
| 3 | 2.1.3 | Testing |
| 2 | 2.2 | Unify Modules |
| 3 | 2.2.1 | Module one scaffolded |
| 3 | 2.2.2 | Module two scaffolded |
| 3 | 2.2.3 | Project testing |
| 3 | 2.2.4 | Update project management plan |
| 2 | 2.3 | Module 3 |
| 3 | 2.3.1 | Develop framework |
| 3 | 2.3.2 | Generate test data |
| 3 | 2.3.3 | Testing |
| 2 | 2.4 | Module 4 |
| 3 | 2.4.1 | Develop framework |
| 3 | 2.4.2 | Generate test data |
| 3 | 2.4.3 | Testing |
| 2 | 2.5 | Unify Modules |
| 3 | 2.5.1 | Module three scaffolded |
| 3 | 2.5.2 | Module four scaffolded |
| 3 | 2.5.3 | Project testing |
| 3 | 2.5.4 | Update project management plan |
| 2 | 2.6 | Unify Project |
| 3 | 2.6.1 | Update testing data |
| 3 | 2.6.2 | Install on testing hardware |
| 3 | 2.6.3 | Project testing |
| 2 | 2.7 | Feedback Period |
| 3 | 2.7.1 | Deploy project in limited testing environment |
| 3 | 2.7.2 | Gather feedback |
| 3 | 2.7.3 | Implement minor changes |
| 2 | 2.8 | Modifications |
| 3 | 2.8.1 | Plan major work |
| 3 | 2.8.2 | Implement major changes |
| 3 | 2.8.3 | Re-install on testing hardware |
| 3 | 2.8.4 | Test major changes |
| 2 | 2.9 | Training |
| 3 | 2.9.1 | Combine documentation |
| 3 | 2.9.2 | Finalize manuals/help material |
| 3 | 2.9.3 | Hire help line staff |
| 2 | 3.1 | Wrap Up |
| 3 | 3.1.1 | Team meeting |
| 3 | 3.1.2 | Break down failures successes |
| 3 | 3.1.3 | Document learning |
| 3 | 3.1.4 | Present to stakeholders |
| 3 | 3.1.5 | Present to sponsor |
| 3 | 3.1.6 | Complete! |

**WBS Dictionary**

|  |  |  |  |
| --- | --- | --- | --- |
| Level | WBS Code | Element Name | Definition |
| 1 | 1 | Widget Management System | All work to implement a new widget management system. |
| 2 | 1.1 | Initiation | The work to initiate the project. |
| 3 | 1.1.1 | Evaluation & Recommendations | Working group to evaluate solution sets and make recommendations. |
| 3 | 1.1.2 | Develop Project Charter | Project Manager to develop the Project Charter. |
| 3 | 1.1.3 | Deliverable: Submit Project Charter | Project Charter is delivered to the Project Sponsor. |
| 3 | 1.1.4 | Project Sponsor Reviews Project Charter | Project sponsor reviews the Project Charter. |
| 3 | 1.1.5 | Project Charter Signed/Approved | The Project Sponsor signs the Project Charter which authorizes the Project Manager to move to the Planning Process. |
| 2 | 1.2 | Planning | The work for the planning process for the project. |
| 3 | 1.2.1 | Create Preliminary Scope Statement | Project Manager creates a Preliminary Scope Statement. |
| 3 | 1.2.2 | Determine Project Team | The Project Manager determines the project team and requests the resources. |
| 3 | 1.2.3 | Project Team Kickoff Meeting | The planning process is officially started with a project kickoff meeting which includes the Project Manager, Project Team and Project Sponsor (optional). |
| 3 | 1.2.4 | Develop Project Plan | Under the direction of the Project Manager the team develops the project plan. |
| 3 | 1.2.5 | Submit Project Plan | Project Manager submits the project plan for approval. |
| 3 | 1.2.6 | Milestone: Project Plan Approval | The project plan is approved and the Project Manager has permission to proceed to execute the project according to the project plan. |
| 2 | 1.3 | Execution | Work involved to execute the project. |
| 3 | 1.3.1 | Project Kickoff Meeting | Project Manager conducts a formal kick off meeting with the project team, project stakeholders and project sponsor. |
| 3 | 1.3.2 | Verify & Validate User Requirements | The original user requirements is reviewed by the project manager and team, then validated with the users/stakeholders. This is where additional clarification may be needed. |
| 3 | 1.3.3 | Design System | The technical resources design the new widget management system. |
| 3 | 1.3.4 | Procure Hardware/Software | The procurement of all hardware, software and facility needs for the project. |
| 3 | 1.3.5 | Install Development System | Team installs a development system for testing and customizations of user interfaces. |
| 3 | 1.3.6 | Testing Phase | The system is tested with a select set of users. |
| 3 | 1.3.7 | Install Live System | The actual system is installed and configured. |
| 3 | 1.3.8 | User Training | All users are provided with a four hours training class. Additionally, managers are provided with an additional two hours class to cover advanced reporting. |
| 3 | 1.3.9 | Go Live | System goes live with all users. |
| 2 | 1.4 | Control | The work involved for the control process of the project. |
| 3 | 1.4.1 | Project Management | Overall project management for the project. |
| 3 | 1.4.2 | Project Status Meetings | Weekly team status meetings. |
| 3 | 1.4.3 | Risk Management | Risk management efforts as defined in the Risk Management Plan. |
| 3 | 1.4.4 | Update Project Management Plan | Project Manager updates the Project Management Plan as the project progresses. |
| 2 | 1.5 | Closeout | The work to close-out the project. |
| 3 | 1.5.1 | Audit Procurement | An audit of all hardware and software procured for the project, ensures that all procured products are accounted for and in the asset management system. |
| 3 | 1.5.2 | Document Lessons Learned | Project Manager along with the project team performs a lessons learned meeting and documents the lessons learned for the project. |
| 3 | 1.5.3 | Update Files/Records | All files and records are updated to reflect the widget management system. |
| 3 | 1.5.4 | Gain Formal Acceptance | The Project Sponsor formally accepts the project by signing the acceptance document included in the project plan. |
| 3 | 1.5.5 | Archive Files/Documents | All project related files and documents are formally archived. |

**Glossary of Terms**

Level of Effort: Level of Effort (LOE) is how much work is required to complete a task.

WBS Code: A unique identifier assigned to each element in a Work Breakdown Structure for the purpose of designating the elements hierarchical location within the WBS.

Work Package: A Work Package is a deliverable or work component at the lowest level of its WBS branch.

WBS Component: A component of a WBS which is located at any level. It can be a Work Package or a WBS Element as there's no restriction on what a WBS Component is.

WBS Element: A WBS Element is a single WBS component and its associated attributes located anywhere within a WBS. A WBS Element can contain work, or it can contain other WBS Elements or Work Packages.

**Requirements Management Plan**

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**Introduction**

The purpose of the EZ-Maintenance Requirements Management Plan is to establish a common understanding of how requirements will be identified, analyzed, documented, and managed for the EZ-Maintenance project.

Requirements will be divided into two categories: project requirements and product requirements.

Project requirements are the requirements identified to meet the needs of the project and ensure its completion and readiness to hand over to operations. These consist mostly of non-technical requirements.

Product requirements are the requirements identified to meet the technical specifications of the product being produced as a result of the project: the EZ-Maintenance mobile application. These will consist of requirements to ensure that performance specifications are met, app functionalities are properly documented, and user experience thresholds are identified and documented.

The inputs for the requirements management plan include the EZ-Maintenance Project Charter and Stakeholder Register.

**Requirements Management Approach**

**Requirements Identification:** The EZ-Maintenance project team will facilitate various methods to collect requirements which may include: interviews, focus groups, facilitated workshops, group creativity techniques, questionnaires and surveys, or product prototypes. These will be conducted among the project stakeholders to ensure all requirements are captured.

**Requirements Analysis:** The EZ-Maintenance project team will analyze requirements to determine if they fall into project or product categories. Additionally, this analysis will determine where in the WBS the requirements will fall or what work activities correspond to particular requirements. Accountability and priority for each requirement will also be determined as part of the analysis. Finally, metrics and acceptance criteria must be determined for all requirements in order to provide a baseline for understanding when a requirement has been fulfilled to an acceptable level.

**Requirements Documentation:** Once requirements have been identified and analyzed, they will be documented and assigned to accountable personnel. These requirements will be added to the EZ-Maintenance project plan and the project team will determine what methodology the accountable personnel will use to track and report on the status of each requirement. All requirements will also be added to the project requirements checklist which must be completed before formal project closure is accepted by the project sponsor.

**Ongoing Requirements Management:** Throughout the project lifecycle, the project manager will ensure all team members are reporting requirement status and raising any issues or concerns with their assigned requirements as appropriate. As the project matures there may be situations in which requirements must change or be altered in some way. The project team must follow the established change control process in order to propose any changes to requirements and receive approval from the change control board. Ongoing requirements management also includes receiving approval of all requirements by all vested parties as part of project closure.

**Configuration Management**

For the EZ-Maintenance Project, the Requirements Management Plan will utilize the configuration management activities outlined in the Configuration Management Plan. Key items include documentation/version control and change control.

**Documentation and Version Control:** All project documentation will be loaded into the Configuration Management Database (CMDB) as the central repository for the EZ-Maintenance Project. Appropriate permissions will be granted to the project team for editing and revising documentation. Any proposed changes to project requirements must be reviewed by the Configuration Control Board (CCB) and have written approval by the project sponsor before any documentation changes are made. Once these proposed changes are approved and the documentation is edited, the project manager will be responsible for communicating the change to all project stakeholders.

**Change Control:** Any proposed changes in project requirements must be carefully considered before approval and implementation. Such changes are likely to impact project scope, time, and/or cost, perhaps significantly. Any proposed changes to project requirements will be reviewed by the CCB. The role of the CCB is to determine the impact of the proposed change on the project, seek clarification on proposed change, and ensure any approved changes are added to the CMDB. The project sponsor, who also sits on the CCB, is responsible for approving any changes in project scope, time, or cost and is an integral part of the change review and approval process.

**Requirements Prioritization Process**

The EZ-Maintenance project manager will facilitate stakeholder meetings in order to establish priorities for all project requirements. This project will use a three-level scale in order to prioritize requirements.The chart below illustrates these levels and defines how requirements will be grouped:



As the project moves forward and additional constraints are identified or there are issues with resources, it may be necessary for the project team and stakeholders to meet in order to determine what requirements must be achieved, which can be re-baselined, or which can be omitted. These determinations will be made in a collaborative effort based on the priorities of the requirements and which level they are assigned in accordance with the chart above. As any changes in requirements are made, all project documentation must be updated in the CMDB and communicated to all project stakeholders.

**Product Metrics**

Product metrics for the EZ-Maintenance project will be based on performance requirements as outlined in the project charter. In order to achieve project success, the EZ-Maintenance product must meet or exceed all established metrics.

Cost, Quality, and Performance metrics will be defined in detail within the project charter.

**BUDGET**

Developed with input from ChatGPT

Project Overview:

The EZ-Maintenance project aims to develop a mobile application for on-site service technicians to track customers, time, and materials. The project will be divided into multiple modules, each serving a different function within the app. This budget was developed with the input of ChatGPT.

Budget Categories:

* Development Costs: $200,000
* Infrastructure Costs: $50,000
* Personnel Costs: $300,000
* Training and Documentation Costs: $20,000
* Contingency Reserve (10% of total budget): $57,000
* Marketing and Launch Costs: $30,000
* Legal and Regulatory Compliance Costs: $15,000

Total Budget Estimate: $672,000

Budget Breakdown:

Development Costs:

* Coding, programming, testing, and debugging activities.
* Estimated Cost: $200,000

Infrastructure Costs:

* Hardware, software tools, servers, and other development infrastructure.
* Estimated Cost: $50,000

Personnel Costs:

* Salaries for project managers, developers, testers, designers, etc.
* Estimated Cost: $300,000

Training and Documentation Costs:

* Training sessions, user manuals, technical documentation.
* Estimated Cost: $20,000

Contingency Reserve:

* Reserve fund to cover unforeseen expenses or risks.
* Estimated Cost: $57,000 (10% of total budget)

Marketing and Launch Costs:

* Marketing activities, promotional materials, launch events.
* Estimated Cost: $30,000

Legal and Regulatory Compliance Costs:

* Legal consultation, IP protection, compliance with regulations.
* Estimated Cost: $15,000

Notes:

The budget estimates provided above are based on industry averages and should be adjusted based on the specific requirements and circumstances of the EZ-Maintenance project.

Actual costs may vary and should be validated through a detailed cost analysis and budgeting process.

It's important to monitor and track actual expenses throughout the project lifecycle to ensure adherence to the budget and identify any deviations or overruns.

**Communication Management Plan**

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**Introduction**

This Communications Management Plan sets the communications framework for this project. It will serve as a guide for communication throughout the life of the project. This plan identifies and defines the roles of everyone involved in this project. A project team directory is included to provide contact information for all stakeholders directly involved in the project.

**Communications Management Approach**

Project Manager Zack Nikkel will ensure effective communications on this project. The Communications Matrix in this document will be used as the guide for all project communications.

Changes or updates may be required as the project matures, and additional requirements are needed. Once the change is approved by the project sponsor, the project manager will update the plan and will distribute the updates to the project team and stakeholders. This methodology is consistent with the project’s Change Management Plan and ensures that all project stakeholders remain aware of any changes.

**Communications Management Constraints**

All project communication activities will occur within the project’s approved budget, schedule, and resource allocations. Communication activities will occur in accordance with the frequencies detailed in the Communication Matrix. Any deviation of these timelines must be approved by the project sponsor.

VanHorn Solutions organizational policy also states that only a Vice President or higher-level employee may authorize the distribution of confidential information. The project manager is responsible for ensuring that approval is requested and obtained prior to the distribution of any confidential information regarding this project.

**Stakeholder Communication Requirements**

The project manager will communicate with each stakeholder to determine their preferred frequency and method of communication. Standard project communications will occur in accordance with the Communication Matrix; however, depending on the identified stakeholder communication requirements, individual communication is acceptable and within the constraints outlined for this project.

If project information is communicated via secure means or through internal company resources, all stakeholders, internal and external, must have the necessary access to receive project communications.

Once all stakeholders have been identified the project team will maintain this information in the project’s Stakeholder Register and use this, along with the project communication matrix as the basis for all communications.

**Roles**

**Project Sponsor**

The project sponsor is the champion of the project and has authorized the project by signing the project charter. Since the Project Sponsor is at the executive level communications should be presented in summary format unless the Project Sponsor requests more detailed communications.

**Program Manager**

The Program Manager is responsible for overall program costs and profitability and as such they require more detailed communications than the Project Sponsor.

**Key Stakeholders**

These are the stakeholders with whom we need to communicate and are not included in the other roles defined in this section. The Key Stakeholders includes executive management with an interest in the project and key users identified for participation in the project.

**Change Control Board**

Technical design documents, user impact analysis and implementation strategies are typical of the types of communication this group requires.

**Customer**

The customer for this project is Kayla Rada. As the customer who will be accepting the final deliverable of this project, they will be informed of the project status including potential impacts to the schedule for the final deliverable or the product itself.

**Project Manager**

As the person responsible for the execution of the project, the Project Manager is the primary communicator for the project distributing information according to this Communications Management Plan.

**Project Team**

The Project Team requires a detailed level of communication which is achieved through daily interactions with the Project Manager and other team members along with weekly team meetings.

**Steering Committee**

The Steering Committee includes management representing the departments which make up the organization. The Steering Committee requires communication on matters which will change the scope of the project and its deliverables.

**Technical Lead**

The Technical Lead is responsible for all technical designs, overseeing the implementation of the designs and developing as-build documentation. The Technical Lead requires close communications with the Project Manager and the Project Team.

**Project Team Directory**

The following table presents contact information for all persons identified in this communications management plan. The email addresses and phone numbers in this table will be used to communicate with these people.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Role** | **Name** | **Title** | **Organization/ Department** | **Email** | **Phone** |
| **Project Sponsor** | Kayla Rada | VP of Technology | IT | [a.white@abc.com](mailto:a.white@abc.com) | (555) 555-1212 |
| **Program Manager** | Peter Van Horn | PMO Manager | PMO | [b.brown@abc.com](mailto:b.brown@abc.com) | (555) 555-1313 |
| **Project Manager** | Zack Nikkel | Project Manager | PMO | [c.black@abc.com](mailto:c.black@abc.com) | (555) 555-1414 |
| **Project Stakeholders** | See Stakeholder Register | See Stakeholder Register | See Stakeholder Register | See Stakeholder Register | See Stakeholder Register |
| **Customer** | Kayla Rada | Manager | IT | [J.Doe@xyz.com](mailto:J.Doe@xyz.com) | (615) 555-8121 |
| **Project Team** |  |  |  |  |  |
| **Technical Lead** | Clayton DeSimone | Lead Developer | IT |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Communication Methods and Technologies**

The project team will determine the communication methods and technologies based on several factors to include: stakeholder communication requirements, available technologies (internal and external), and organizational policies and standards.

VanHorn Solutions LLC maintains a SharePoint platform within the PMO which all projects use to provide updates, archive various reports, and conduct project communications. This platform enables senior management and stakeholders with compatible technology to access project data and communications. SharePoint also allows stakeholders and project team members to collaborate on project work.

All project teams are responsible for developing, maintaining, and communicating schedules using MS Project software. PERT Charts are the preferred format for communicating schedules to stakeholders. The project schedule will be maintained on the SharePoint platform.

All project communication and documentation, in addition to being maintained on the SharePoint platform and project website, will be archived on the internal VanHorn Solutions shared drive which resides in the PMO program directory. Organizational naming conventions for files and folders will be applied to all archived work.

**Communications Matrix**

The following table identifies the communications requirements for this project.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Communication Type** | **Objective of Communication** | **Medium** | **Frequency** | **Audience** | **Owner** | **Deliverable** | **Format** |
| Kickoff Meeting | Introduce the project team and the project. Review project objectives and management approach. | * Face to Face | Once | * Project Sponsor * Project Team * Stakeholders | Project Manager | * Agenda * Meeting Minutes | * Soft copy archived on project SharePoint site and project web site |
| Project Team Meetings | Review status of the project with the team. | * Face to Face * Conference Call | Weekly | * Project Team | Project Manager | * Agenda * Meeting Minutes * Project schedule | * Soft copy archived on project SharePoint site and project web site |
| Technical Design Meetings | Discuss and develop technical design solutions for the project. | * Face to Face | As Needed | * Project Technical Staff | Technical Lead | * Agenda * Meeting Minutes | * Soft copy archived on project SharePoint site and project web site |
| Monthly Project Status Meetings | Report on the status of the project to management. | * Face to Face * Conference Call | Monthly | * PMO | Project Manager | * Slide updates * Project schedule | * Soft copy archived on project SharePoint site and project web site |
| Project Status Reports | Report the status of the project including activities, progress, costs, and issues. | * Email | Monthly | * Project Sponsor * Project Team * Stakeholders * PMO | Project Manager | * Project Status Report * Project schedule | * Soft copy archived on project SharePoint site and project web site |

**Communication Flowchart**

This flowchart provides a framework for the project team to follow for this project. However, there may be occasions or situations which fall outside of the communication flowchart where additional clarification is necessary. In these situations, the Project Manager is responsible for discussing communication with the Project Sponsor and making a determination.



**Guidelines for Meetings**

**Meeting Agenda**

The meeting Agenda will be distributed 5 business days in advance of the meeting. The agenda should identify the presenter for each topic along with a time limit for that topic. The first item on the agenda should be a review of action items from the previous meeting.

**Meeting Minutes**

Meeting minutes will be distributed within 2 business days following the meeting. Meeting minutes will include the status of all items from the agenda along with new action items and the Parking Lot list.

**Action Items**

Action items will include both the action item along with the owner of the action item. Meetings will start with a review of the status of all action items from previous meetings and end with a review of all new action items resulting from the meeting.

**Meeting Chairperson**

The Chairperson is responsible for distributing the meeting agenda, facilitating the meeting, and distributing the meeting minutes.

**Note Taker**

The Note Taker will give a copy of their notes to the Chairperson at the end of the meeting as the Chairperson will use the notes to create the Meeting Minutes.

**Timekeeper**

The Timekeeper will let the presenter know when they are approaching the end of their allocated time. Typically, a quick hand signal to the presenter indicating how many minutes remain for the topic is sufficient.

**Parking Lot**

The Parking Lot is a tool used by the facilitator to record and defer items which aren’t on the meeting agenda; however, merit further discussion later.

A parking lot record should identify an owner for the item as that person will be responsible for ensuring follow-up. The Parking Lot list is to be included in the meeting minutes.

**Communication Standards**

VanHorn Solutions LLC will utilize standard organizational formats and templates for all formal project communications. Formal project communications are detailed in the project’s communication matrix and include:

Kickoff Meeting – the project team will utilize VanHorn Solutions LLC standard templates for meeting agenda and meeting minutes. Additionally, any slides presented will use the ABC Corp. standard slideshow template.

Project Team Meetings – the project team will utilize VanHorn Solutions LLC standard templates for meeting agenda and meeting minutes. Additionally, any slides presented will use the ABC Corp. standard slideshow template.

Technical Design Meetings - the project team will utilize VanHorn Solutions LLC standard templates for meeting agenda and meeting minutes. Additionally, any slides presented will use the ABC Corp. standard slideshow template.

Monthly Project Status Meetings - project team will utilize VanHorn Solutions LLC standard templates for meeting agenda and meeting minutes. Additionally, any slides presented will use the ABC Corp. standard slideshow template.

Project Status Reports – project team will utilize VanHorn Solutions LLC standard templates for meeting agenda and meeting minutes. Additionally, the standard project status report document, available on the share drive, will be used to provide project status.

Informal project communications should be professional and effective but there is no standard template or format that must be used.

**Communication Escalation Process**

It is imperative that any disputes, conflicts, or discrepancies regarding project communications are resolved in a way that is conducive to maintaining the project schedule, ensuring the correct communications are distributed, and preventing any ongoing difficulties. To ensure projects stay on schedule and issues are resolved, VanHorn Solutions LLC will use its standard escalation model to provide a framework for escalating communication issues. The table below defines the priority levels, decision authorities, and timeframes for resolution.

|  |  |  |  |
| --- | --- | --- | --- |
| **Priority** | **Definition** | **Decision Authority** | **Timeframe for Resolution** |
| Priority 1 | Major impact on project or business operations. If not resolved quickly there will be a significant adverse impact to revenue and/or schedule. | Vice President or higher | Within 4 hours |
| Priority 2 | Medium impact to project or business operations which may result in some adverse impact to revenue and/or schedule. | Project Sponsor | Within one business day |
| Priority 3 | Slight impact which may cause some minor scheduling difficulties with the project but no impact to business operations or revenue. | Project Manager | Within two business days |
| Priority 4 | Insignificant impact to project but there may be a better solution. | Project Manager | Work continues and any recommendations are submitted via the project change control process |

\*\* NOTE: Any communication including sensitive and/or confidential information will require escalation to VP level or higher for approval prior to external distribution.

**Glossary of Communication Terminology**

|  |  |
| --- | --- |
| Term | Definition |
| Communication | The effective sending and receiving of information. Ideally, the information received should match the information sent. It is the responsibility of the sender to ensure this takes place. |
| Stakeholder | Individuals or groups involved in the project or whose interests may be affected by the project’s execution or outcome. |
| Communications Management Plan | Portion of the overall Project Management Plan which details how project communications will be conducted, who will participate in communications, frequency of communications, and methods of communications. |
| Escalation | The process which details how conflicts and issues will be passed up the management chain for resolution as well as the timeframe to achieve resolution. |
|  |  |

**Risk Management Plan**

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**Introduction**

This project is considered a low-risk project as it has an overall risk score of 3 on a scale from 0 to 10. The project risk score is the average of the risk scores of the most significant risks to this project. A risk score between 3 and 7 is a medium risk project and a score above 7 is a high-risk project.

T the following project elements were completed and defined prior to developing this Risk Management Plan:

* Define work scope, schedule, resources, and cost elements.
* Develop project WBS/WBS dictionary.
* Develop master schedule and detailed schedules.
* Estimate project cost and finalize budget.
* Identify required and available resources.
* Establish performance measurement metrics.
* Define minimum and maximum baseline thresholds.
* Schedule
* Resources
* Cost
* Baseline reporting requirements
* Format
* Frequency of distribution
* Distribution list
* Define Risk Management Roles and Responsibilities
* Project Manager chairs the risk assessment meetings.
* Project team participates in risk assessment meetings and members serve as meeting recorder and timekeeper.
* Project Sponsor may participate in risk assessment meetings.

**Top Three Risks**

The top three high probability and high impact risks to this project are:

**Business partners withdraw.**

**Significant change-order**

**Advances in AI**

**Risk Management Approach**

We added the highest impact risks to the project schedule so that risk managers take the necessary steps to implement the mitigation response. Risk managers will provide status updates on their assigned risks in bi-weekly meetings. Upon the completion of the project, the project manager will analyze the risk management process. Based on this analysis, we will identify any improvements that can be made to the process for future projects.

**Risk Identification**

For this project, risk identification was conducted in the initial project risk assessment meeting. The project team identified risks using the following methods.

**Risk Assessment Meeting**

A risk assessment meeting was held with key team members. The risks identified during this meeting were added to the project plan and Risk Register.

**Historical Review of Similar Projects**

The project team reviewed the history of similar projects to determine the most common risks and the strategies used to mitigate those risks.

**Risk Qualification and Prioritization**

To determine the severity of the risks identified by the team, a probability and impact factor was assigned to each risk. The project manager utilized a probability-impact matrix to place each risk appropriately on the chart.

**Risk Monitoring**

The most likely and greatest impact risks have been added to the project plan, so they are monitored during the time the project is exposed to each risk. During the bi-weekly project team meeting the Risk Manager for each risk will discuss the status of that risk. Risk monitoring will be a continuous process throughout the life of this project. As risks approach on the project schedule the project manager will ensure that the appropriate risk manager provides the necessary status updates.

**Risk Mitigation and Avoidance**

The project manager has led the project team in developing responses to each identified risk. As more risks are identified the team will develop mitigation strategies and add the risks to the Risk Register and the project plan.

The project manager, with the assistance of the project team, will determine the best way to respond to each risk to ensure compliance with the constraints of time, scope, and cost.

It may be necessary to allow flexibility to one or more of the project’s constraints. If necessary, funding may be added to the project to allow for more resources to meet the time and scope constraints.

**Risk Register**

The Risk Register for this project is a log of all identified risks, their probability and impact to the project, the category they belong to, mitigation strategy, and when the risk will occur. The Risk Register also contains the mitigation strategy for each risk as well as when the risk is likely to occur.

Each risk has been added to the project plan. At the appropriate time in the plan the project manager will assign a risk manager to ensure adherence to the mitigation strategy. Each risk manager will provide the status of their assigned risk at the bi-weekly project team meeting.

**Sponsor Acceptance**

Approved by the Project Sponsor:

Date:

Kayla Rada

Owner