PROJECT MANAGEMENT PLAN

<RAMs Corner: ITRO Ticketing Service System>

Asia Pacific College

Information Technology Resource Office

3 Humabon Place, Brgy. Magallanes

Makati City, 1232

May 2023

# Company Profile

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| --- | --- |
| Registered Name | Asia Pacific College – Information Technology and Resource Office |
| Company Logo |  |
| Address | 5th Floor, Asia Pacific College, 3 Humabon Place, Barangay Magallanes, Makati City, Metro Manila 1232 |
| Telephone Numbers |  |
| Fax Number |  |
| Line of Business |  |
| Type of Customers |  |
| Date of Registration |  |
| President |  |
| Number of Employees |  |

# Business Case

## Problem Definition

### 2.1.1 Problem Statement

The Asia Pacific College ITRO Department lacks a system that would help them address the school’s technical-related problems. They only use email system which often-times. ITRO personnel tend to miss out the students, teachers, or staff emails regarding the problem they encountered. This might lead to a bigger problem since there are problems that need attention and action.

### 2.1.2 Organizational Impact

The Nacor Industries’ Ram’s Corner: Ticketing System will make a significant change on the ITRO Department. Some of the changes that will immediately take effect is the current system that they are using.

Tools:

Once the RAMS Corner: Ticketing System is up and running. It will replace the old email system that the Department is currently using. This will require training for the ITRO personnel because the software is new and fresh. The training will provide much smoother work as they will navigate each button and functions continuously and they won’t need to guess the functions of a specific button.

Processes:

With the new System made, it will boost the Department’s productivity as the system will ask its users for full details of the problem they encountered. This will reduce the time of the personnel trying to figure out what the users are trying to convey. It will reduce the manual assigning of tickets as the system will automatically personnel to resolve the problem.

Roles and Responsibilities:

The department is divided into two groups. One that handles all hardware related problems and other for all software related problems. With the new system, all the ITRO personnel can focus on the fields of their expertise. In this way, the job gets to be done in a short time as the personnel who handle the problem know what they are doing resulting in a smooth resolution for the users.

Hardware and software:

The hardware will not be much of a problem as the Department already has a laptop that can run the software. As for the software needs. It does not require much, and it only needs a stable internet connection to run properly.

### 2.1.3 Technology Migration

Since the legacy system utilized by the client is only email-based and the team’s system, RAMS Corner runs on the web on an entirely new environment, the team decided to pursue the migration through a systematic approach to avoid any conflicts regarding the ongoing processes within the legacy system (email-based reporting):

Phase 1:

* + The development team would pull a handful of the existing userbase within the project stakeholders through their APC outlook emails for isolated testing purposes.

Phase 2:

* + If the test cases were all satisfactory, then the backend developer would proceed to pull all existing userbases and build their own accounts with pre-determined credentials to be modified later by each of the stakeholders and fill the Knowledge Base with past issues raised and solved by the ITRO.

Phase 3:

* + With the acknowledgement of the ITRO Head, Mr. Jojo Castillo, the ITRO are encouraged to promote the newly developed web-application by informing their clients of its existence through pre-established communication channels such as their APC emails or through a formal press release.

Phase 4:

* + Since most inquiries sent through email are only being recorded and handled manually, the complete transfer of the already ongoing processes from emails to the RAMS Corner Ticketing Service System would not be advised, therefore, all new inquiries would be made in the web application, while the already ongoing ones are meant to be handled separately until completion. Inquiries that are sent through email, but have long been pending, however should be sent to the RAMS Corner to be handled.

## Project Overview

### Project Description

RAMS Corner Ticketing System is a web-based application that would make use of a ticketing method similar to that of Discord and other outsourcing companies that would not only help the students and teachers get an equal chance to be given audience by the ITRO, but also to provide automated questions to frequently-asked-questions through a dedicated knowledge base that would be done by surveying them before the development phase. Making troubleshooting easier and much more convenient.

### Goals and Objectives

The business objectives for this project are to direct support of our team’s strategic plan to provide an alternative work environment for the ITRO and improve their workflow efficiency.

* Complete implementation of the RAMS Corner Ticketing System within the next 90 days (about 3 months) to replace the current email-based system.
* Shorten time duration of ITRO’s interactions with their clients by 85% after the app deployment.
* Minimize the number of inquiries that does not reach the ITRO by at least 70%—within the next month after the full app deployment.

### Project Performance

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

* Finish the development of the app’s user interface within the next 50 days (about 1 and a half months)
* Retrieve all the necessary data of the ITRO and their clients for the database within the next 25 days (about 3 and a half weeks)
* Present a working prototype with at least 50% of its functions realized within the next 35 days (about 1 month 4 and a half days)
* Present the beta version of the application with all its functions intact within the next 100 days (about 3 and a half months)
* Conduct an isolated deployment of the application within the next 100 days (about 3 and a half months)
* Deploy the application for the use of ITRO and their clients within the next 120 days (about 4 months)

### Project Assumptions

Listed below are the team’s project assumptions revolving regarding the deployment of RAMS Corner Ticketing System.

* + The ITRO, as well as their clients have access to the internet through APC Rams Wi-Fi (or personal data/ISP) along with the necessary devices to use the web application.
  + The ITRO Staff would be trained in using the new web application.
  + The web application will be developed without any major technical issues or roadblocks.
  + The web-app will be deployed by the client using their resources with sufficient processing power, memory, and storage.
  + The web application will be developed within the given timeline (the entirety of PBL1).
  + The APC faculty and students would utilize the new system instead of the email-based reporting system.
  + The ITRO would properly launch and promote the new system.
  + The email notification system will work without any issues.

### Project Constraints

Listed below are the possible project constraints revolving around RAMS Corner’s design and implementation which involves—but are not limited to--the following:

* + Data Privacy
    - Upon takeover, the ITRO would be the one fully responsible for the web-application, and any other authorization regarding the APC faculty and the user’s credentials.
  + Deployment Budget
    - The development team would not ask for any form of payment, and the ITRO would be the ones in charge of the system’s deployment within their budget, along with any other preceding financial needs that the app might incur.
  + Manpower / Workforce
    - The web-application has been made with the limited manpower that the ITRO currently has, however, their lack of workforce should be dealt with to have more hands-on deck to ensure that there would always be an eye out to see the updates within the system.
  + Training / System Migration
    - The ITRO staff are bound to learn and familiarize themselves with the new system to utilize it to its fullest extent along with its features and functionalities.

### Major Project Milestones

|  |  |
| --- | --- |
| **Summary Milestone Schedule – List key project milestones relative to project start.** | |
| **Project Milestone** | **Target Date (mm/dd/yyyy)** |
| * Project Start | 03/2022 |
| * Initial UI/UX Design Completion | 01/08/2023 |
| * App Development Start | 01/10/23 |
| * Initial Prototype Testing and Debugging | 02/2023 |
| * Final App Completion * Isolated App Deployment | 03/2023 |
| * Complete App Deployment | 03/2023 |
| * Project Improvement | 04/2023 |
| * Project Complete | 11/2023 |

## 2.3 Strategic Alignment

1. The ITRO follows the following mission and objectives for each of the ITRO sub-department:

**Objectives of the Infrastructure Team:​**

1. Provide IT hardware, cloud services, technical support services, where and when needed by the members of the APC Communality​
2. Maintain the equipment ready for use by everyone.

**Objectives of the Development Team:​**

1. Develop software needed by the organization for its efficient operations.​
2. Maintain these applications to go with the times including any process changes.​
3. External environment analysis:
   * Mostly, it is the growing trend and increase in volume of the demand for cloud-based technologies.
4. Internal resources and capabilities analysis:
   * People: ITRO only has a few staff. These staff are highly skilled in terms of technology handling.
   * Process: Follows specific receive-process-deliver steps in completing a request/solving a problem. No data gathering tools are used for better decision-making.
   * Technology: Equipped with latest technology tools
5. Strategic goals
   * Launch an app that is specifically used to manage the problems and inquiries of APC Community
   * Lower the requests/inquiries that are frequently asked to the ITRO by 10% very year
   * Increase the percentage of the people who are accommodated by 20% within a year
   * Keep track of the interaction between ITRO and its clients as a basis for decision-making and for record-keeping
6. Strategic plan
   * Develop a web application that is accessible both in desktop, laptop, or smartphone, with or without connectivity issues, with an uptime of 95% a year
   * Include a library for solutions as a feature of the web app to lower the percentage of receiving redundant request
   * Create Service Level Agreement (SLA) for the problems/request raised to the ITRO according to its impact and severity to an individual, a group of individuals or the whole APC Community
   * Data analytics

By following this strategic alignment, the ITRO can leverage or improve its internal resources and capabilities to be able to manage the external environment issues and achieve the objectives of their department whilst retaining their success in providing service for the APC Community in the following years.

## Cost and Benefit Analysis

RAMS Corner Ticketing System, and the team of developers behind it: Nacor Industries would be working voluntarily and would not require any form of compensation from the project stakeholders aside from donations that would be very much welcome. Considering these of course, Nacor Industries is only limited to whatever hardware or time the group has for the Project Management course (PROJMAN) as of the moment. Neither the team nor the individuals are compelled to take part in any financial investments towards the development of the system since the application would be done as a requirement for the course which would take about two more terms to fully realize, or about four to five months before being deployed. Making RAMS Corner the most obvious choice for the client as it will be tailor-made and free.

# Project Charter

## 3.1 Project Purpose/Justification

### 3.1.1 Business Need

RAMS Corner Ticketing System aims to modernize and introduce a more efficient and manageable workflow for the ITRO to replace their current email-based reporting system. The software to be developed will be free of charge and could be accessed by them, and their clients through the use of any device.

### 3.1.2 Business Objectives

The business objectives for this project are to direct support of our team’s strategic plan to provide an alternative work environment for the ITRO and improve their workflow efficiency.

- Complete implementation of the RAMS Corner Ticketing System within the next 90 days to replace the current email-based system.

- Shorten time duration of ITRO’s interactions with their clients by 85% after the app deployment

- Minimize the number of inquiries that does not reach the ITRO by at least 70%—within the next month after the full app deployment

## 3.2 Project Description

RAMS Corner Ticketing System is a web-based application that would make use of a ticketing method similar to that of Discord and other outsourcing companies that would not only help the students and teachers get an equal chance to be given audience by the ITRO, but also to provide automated questions to frequently-asked-questions through a dedicated knowledge base that would be done by surveying them before the development phase. Making troubleshooting easier and much more convenient.

### 3.2.1 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 ISA project, the following objectives must be met within the designated time and budget allocations:

* Finish the development of the app’s user interface within the next 15 days
* Retrieve all the necessary data of the ITRO and their clients for the database within the next 25 days
* Present a working prototype with at least 50% of its functions realized within the next 35 days
* Present the beta version of the application with all of its functions intact within the next 70 days
* Conduct an isolated deployment of the application within the next 80 days
* Deploy the application for the use of ITRO and their clients within the next 120 days

### 3.2.2 Requirements

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

* The application must be tested by the team within the vicinity of Asia Pacific College with the presence of the project beneficiary and the subject course adviser for MCSPROJ
* Solution must be implemented without disruption to operations

Additional requirements may be added as necessary, with the project adviser, and beneficiary’s approval, as the project moves forward.

### 3.2.3 Constraints

The following constraints pertain to the ISA project:

* All security hardware and software must be compatible with ITRO’s current platforms
* Every work and tasks to be filled upon the application’s development
* All hardware and software accessible to the team are limited only to the ones they own themselves or those readily available at the Asia Pacific College

### 3.2.4 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 adviser, beneficiary, stakeholders, and all parties associated
* The purpose of this project will be communicated throughout the ITRO prior to deployment
* No monetary compensations or fundings have been given to the team upon project development

### 3.2.3 Preliminary Scope Statement

RAMS Corner Ticketing System will be designed, developed, and tested by Nacor Industries to deliver an alternative working environment for the ITRO to modernize and improve their workflow efficiency. All project-related work will be independent of daily and ongoing operations and all required testing will be done either within the APC school grounds or the team’s individual workplaces. Nacor Industries would also not be obliged to comply with or entertain all changes made or requested for the application after the end of the said subject’s duration, unless done so voluntarily.

## 3.3 Risks

The following denotes all the risks that have been identified upon the possible implementation of the RAMS Corner Ticketing System. To ensure the success of the project and to minimize the threat and possibilities of any of the following to occur, the team will be sure to mitigate and create an effort to minimize its effects.

* Potential disruption to operations during solution deployment
* Possible hardware/software specific bugs that may occur upon system access
* Incompatibilities with the pre-installed software/hardware within the ITRO and their clients
* Probable refusal or lack of knowledge of some ITRO Clients about the newly implemented system

## Project Key Deliverables

The following deliverables must be met upon the successful deployment of the RAMS Corner Ticketing System. Any changes to these deliverables must be approved by the project adviser.

* Fully deployed and accessible web application for ITRO and their clients
* Technical reports for the first weeks of deployment must be made to ensure the integrity of the web-application
* Post-deployment surveys would also be given to the ITRO and their clients to assess the satisfaction rate as well as to receive any feedback regarding the concerns and recommendations regarding the application.

## 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.

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| --- | --- |
| **Summary Milestone Schedule – List key project milestones relative to project start.** | |
| **Project Milestone** | **Target Date (mm/dd/yyyy)** |
| 1. Project Start | 03/2022 |
| * Initial UI/UX Design Completion | 01/08/2023 |
| 1. App Development Start | 01/10/23 |
| 1. Initial Prototype Testing and Debugging | 02/2023 |
| 1. Final App Completion 2. Isolated App Deployment | 03/2023 |
| 1. Complete App Deployment | 03/2023 |
| 1. Project Improvement | 04/2023 |
| 1. Project Complete | 07/2023 |

## Budget Summary

## Project Approval Requirements

RAMS Corner Ticketing System’s success will be achieved when fully fleshed-out software is published and is installed within the devices of the ITRO Office and their clientele within the time and cost constraints indicated in this charter. To further assess the success of the project, post-deployment surveys would be done in order to gauge the effectivity of the solution, along with any other possible recommendations or suggestions that might be useful for the betterment of the system which would be determined by the Project Adviser, Mr. Alvin Limpin, the Project’s Beneficiary, Mr. Jojo Castillo and the PROJMAN Subject Course Adviser, Prof. Jose Eugenio Quesada, who will also authorize the completion of the project.

# Project Management Approach

# Project Technical Approach

## 5.1 Product Development Methodology

## 5.2 Technical Architecture

# 6. Project Management Plan

## 6.1 Stakeholders Strategy Management Plan

### 6.1.1 Introduction

The Stakeholder Management Strategy for the project is a crucial aspect of effective project management. It involves identifying and engaging with all relevant stakeholders to ensure their interests, concerns, and expectations are considered and addressed throughout the project's lifecycle. In this section, we will discuss the goals and objectives of the Stakeholder Management Strategy and highlight its significance in project success.

Proper stakeholder management is essential as it helps in gaining support and buy-in from stakeholders, while also proactively addressing any potential resistance, conflict, or competing objectives. By actively involving stakeholders, we can minimize risks and maximize project success by aligning their interests with the project's objectives.

In this section, we will outline the key goals and objectives of the Stakeholder Management Strategy, which will serve as a guiding framework for effectively managing stakeholders throughout the project's duration.

Strategies that could be implemented to improve the stakeholder management for the RAMS Corner Ticketing Software System:

* **Communicate regularly and transparently:** The team Nacor Industries will establish an open and transparent communication channel with stakeholders. Provide regular updates on project progress, risks, and changes. Be clear, honest, and consistent in communication to build trust and maintain positive relationships with the stakeholders.
* **Involve stakeholders in decision-making:** Involving stakeholders in the decision-making of the project RAMS Corner can foster their ownership and commitment to the project. Seek their input, feedback, and suggestions when making important decisions, and incorporate their perspectives as appropriate.

By implementing these strategies, our team can improve stakeholder management and cultivate positive relationships with stakeholders, leading to greater project success and organizational effectiveness for the Project RAMS Corner.

### 6.1.2 Identify Stakeholders

Stakeholder analysis was used by the project team to identify the project's stakeholders and highlight the ways in which they demonstrate their "proposed actions" for the project's advancement. This may include their impact, influence, engagement techniques, and how they primarily impact the project development lifecycle, such as if they caused delays in particular development phases or brought success and failure with their suggested activities.

Identified Stakeholders:

1. Project Sponsor

* Mr. Jose Castillo, as the head of the ITRO department office, facilitates discussions among the project team providing the necessary technical aspects needed for system development. He is also identified as the project sponsor.

1. Project Advisor

* The project advisor is Mr. Alvin Limpin. With his extensive knowledge and experience in the corporate field and the IT industry, he was able to provide guidance to the project's development by highlighting technical uncertainties within the system. This has a significant impact on the project team because the suggested changes and updates took time to implement, resulting in delays in the project's development.

1. Project Consultant

1. Mr. Hans Schuck

2. Ms. Wednesday Gardon

* Both Project Consultants are also identified as project stakeholders since they are defined by their influence made in the team as the gave insights and suggestions towards their field of expertise which give them a lot of credit to the project contribution

1. APC ITRO

* APC ITRO is identified as a project stakeholder since they provide continuous feedbacks upon the accessibility and usability of the Ticketing System, which they fill a big role as the staff who will use the system as the development team will turnover the full working system for the ITRO Department Offie specific use case.

5. APC Students and Faculties

* Students and faculties are identified as project stakeholders since they are the specific users of the Ticketing System, in which they will utilize to further communicate with ITRO customer service using the Ticketing System and using the application will be their greatest contribution as they provide with the feedback and usability of the system.

### 6.1.3 Key stakeholders

Identified Key Stakeholders:

1. ITRO Department Office of Asia Pacific College Headed by Mr. Jose Castillo

* One of the key stakeholders in the Project entitled Rams Corner Ticketing System is the ITRO Department Office. On top of that, they said the department office also happens to be the project's client, which is under the supervision of Mr. Jose Castillo. After the whole project development is complete, the ticketing software as the byproduct of the project will be utilized by the department. The head of the ITRO Department Office, Mr. Jose Castillo is the representative of the department that facilitates communication between the project team including all the discussions, meetings, updates, with his great knowledge in technical field of information technology he managed to bring great impact and influence towards the decision making with regards to the development during the course of the project.

### 6.1.4 Stakeholder Analysis

A screenshot of a computer

Description automatically generated with medium confidence

## 6.2 Scope Management Plan

### 6.2.1 Introduction

Towards the start of the project: RAMS Corner Ticketing System, the team, Nacor Industries has already set a list of scope and limitations that would enable the group to focus on the tasks at hand and not be swayed nor distracted by minor issues nor inconveniences prior, during and after the development phase. This Scope Management Plan aims to identify and elaborate the necessary processes used to define, control, approach, delegate, and verify the project’s scope which involves—but are not limited to—the following:

1. Requirement Collection;

* This process would be done through collective and regular meetings with the group and the client through a Scrum-Fall methodology-based workflow. This ensures that the needed data and resources would be gathered and verified simultaneously while also allowing freedom for the team in case of revision, as referenced in the figure below:

A picture containing diagram

Description automatically generated

*Figure 1: Scrum-Fall Methodology*

1. Scope Definition;

* Involves the checking of all the necessary documents such as contracts, agreements, and statements of work to ensure that they align with the project's goals, objectives, and constraints.

1. Work Breakdown Structure (WBS) Creation;

* The WBS is comprehensive and accurate visual representation of the tasks and goals that the team came up with through various sessions and meetings which entails all the work packages required to complete the project.

1. Scope Verification;

* This would be done through performing a walkthrough of the project deliverables with stakeholders to ensure that they meet their needs and expectations. Furthermore, it will allow stakeholders to provide feedback and make suggestions for improvement as indicated accordingly through the team’s Scrum-Fall Methodology.

1. Scope Control

* Controlling the project’s scope is needed to reflect any changes in the project's goals, objectives, or constraints. Prior to any changes the team would make sure that the stakeholders are aware of the project's scope.

### 6.2.2 Scope Management approach

The scope of the web application, RAMS Corner: Ticketing System is pre-determined in Scope Definition, Project Scope Statement, Work Breakdown Structure (WBS) and WBS dictionary. The primary objective of the project is to develop the said application for the client, APC-ITRO and provide a platform for them to use in lieu of their current email-based reporting system. The scope of the project revolves mainly around the main project documentation and the creation phase would include the planning of the system’s functionalities, design, actual development, test cases for usability and performance, along with the provision of user manuals, training, and support for the stakeholders and clients.

### 6.2.3 Roles and Responsibilities

In order to promote organizational harmony and present a systematic and effective development procedure, each member of the team, Nacor Industries, along with other stakeholders has been assigned with roles according to their interests and areas of expertise, with the roles being listed below:

|  |  |
| --- | --- |
| **ROLES** | **RESPONSIBILITIES** |
| Project Advisor | * Provides necessary feedback on the system and project deliverables * Provides suggestions on the change approach that should be made and implemented towards the system * Guides the team with the project development. |
| Project Manager | * Assigns work to all team members * Ensures that project deliverables are done on time * Facilitates team meeting with project client and project advisor for possible change requests within the system and project documentations. * Executes scope change requests from project client and advisor if changes will be necessary as discussed in consultations. |
| Product Owner | * Defines and prioritizes the project requirements and ensures that the final product meets the needs of the stakeholders. * Works closely with the Project Manager and Scrum Team to ensure that the project deliverables align with the scope. * Represents the stakeholders and clients’ best interest during meetings. |
| Scrum Master | * Facilitates the Agile Development process with regards to the Scrum framework * Works closely with the Project Manager and Product Owner to ensure that the project is progressing according to the defined scope. |
| Scrum Team | * Under the lead of the Scrum Master, they are the ones responsible for developing the project deliverables and working together with the rest of the team to ensure the success of the project. |
| Documentation Manager | * Oversees the project documentation deliverables and ensures that the documents are presentable and free from errors. * Ensures that the project documents are adjusted and updated according to what the project client and advisor discussed on change requests. |
| Project Client | * As a key stakeholder, the client provides all the necessary information needed by the project team in their work organization, if necessary, in the project development * Suggests changes in the system according to their work organization that should ensure the system is properly developed before deployment |
| Class Advisor | * Acts as another stakeholder and guides the team members (students) to make sure that the project itself, along with the several documentations would be pleasing in an academic perspective. |

### 6.2.4 Scope Definition

The project, RAMS Corner: Ticketing System, is designed for the use of the (1) APC organization; (2) APC staff and faculty members, (3) APC students, will help the ITRO in their workflow in identifying problems within the building. This ticketing system that the team is developing allows the ITRO Admins to have more control over how it tracks and resolves the ITRO Client complaints. The team’s ticketing software has a set of processes that enable the ITRO to efficiently oversee incidents and service requests logged or reported by its ITRO clients which involves—and is specifically limited to—the following:

* Infrastructure-Based
* Desktop Support
* Server/Cloud Services Support
* Audio/Video Equipment Support
* Software-Based
* Backend Development Support
* Business Analysis/QA
* Data Analysis
* Software Development Support

The flexible ticketing solution increases IT service delivery and overall ITRO Client satisfaction by integrating native IT service management modules such as IT problem management and asset management. But this ticketing system will not cover the management of the requests to ITRO that are raised via phone calls. This application serves only as Ticket Management and does not include ITRO’s Problem Management and User Management. This project will be used and be made available only to the APC staff, personnel, and students.

### 6.2.5 Project Scope Statement

**Product Scope Description**

The project team's goal is to develop a deployable IT ticketing system that will be complete and functional as a requirement for the team’s Project-Based Learning (PBL) course with the following features stated below:

* Dashboard
  + The dashboard is meant to provide information and updates at a glance, customized to each user and user type.
    - ITRO Client:
      * A simpler version which aims to give ample information about the possible concerns of the client at a glance which includes ticket status, number of tickets sent, and KB shortcuts.
    - ITRO Admin/ITRO Staff:
      * The admin and staff dashboard has a more technical and professional look but has the same functions related to their concerns that involves—but are not limited to—the following: received tickets, assigned tickets, statuses of tickets concerning them, ticket summary, active clients, and agents, etc.
* Notifications
  + The notifications pane would be available to every user type and would provide them with the latest updates regarding their tickets and other issues that may be of concern to them.
* Ticket Table
  + The ticket table lists all of the tickets received by the ITRO, along with their current status and details which entail the date and time it is created, along with its prioritization, assignment, etc.
* Knowledge Base
  + The Knowledge Base is a collection of common IT problems and their resolutions that would aim to empower the users and give them the ability to troubleshoot their problems by themselves.
    - ITRO Admin:
      * Could view, add, modify, hide, and approve KB entries to be viewed by the ITRO Clients.
    - ITRO Staff:
      * Could view, add, modify, or hide KB entries from the ITRO Clients.
    - ITRO Client:
      * Could view the knowledge base for self-troubleshooting.
* Generate Reports
  + This feature was made exclusively for the ITRO Admin/Staff interface so that they may be able to view the data regarding the tickets sent depending on their choice of date frame that could be downloaded in PDF format.
* Tags
  + This feature allows the users tagged through the CC section of the tickets to be notified about any updates and progress made to the tickets.
* My Personal Tickets
  + This pane allows the users to see the tickets that they’ve sent personally.

The project team also aims to hand over the said deployable IT Ticketing System for the ITRO Department of Asia Pacific College at the end of the semester since they are the main project beneficiaries as well as their respective clients (APC community.)

**Acceptance Criteria**

Success for the project will be measured on three factors: deliverables, quality of work and deployment, if these three would be deemed to be complete by the stakeholders, project client, project advisor, and class advisor, then the project would be considered a success.

**Project Deliverables**

Upon successful project completion, the team would be able to provide the fully-functional and finished system, along with the source code through GitHub with the Software Requirement Specification along with several other project documentations which include—but are not limited to the following:

* User Manual
* Business Case
* Stakeholders Management Strategy Plan
* Scope Management Plan
* Cost Management Plan
* Time Management Plan
* Human Resource Management Plan
* Communication Management Plan
* Procurement Management Plan
* Project Status Reports Distribution plan
* Change Request Documentation
* Project Execution Monitoring Report
* Implementation Plan
* Change Management Plan
* Project Status Reports
* Transition-Out Plan
* Project Turn-Over Plan
* Post Project Review Plan

**Project Exclusions**

The limitations and exclusions that the team found out has been compounded and listed below and were limited to the design and implementation constraints that the RAMS Corner web application will encounter:

* Data Privacy
  + Upon takeover, the ITRO would be the one fully responsible for the web-application, and any other authorization regarding the APC faculty and the user’s credentials.
* Deployment Budget
  + The development team would not ask for any form of payment, and the ITRO would be the ones in charge of the system’s deployment within their budget, along with any other preceding financial needs that the app might incur.
* Manpower / Workforce
  + The web-application has been made with the limited manpower that the ITRO currently has, however, their lack of workforce should be dealt with in order to have more hands-on deck to ensure that there would always be an eye out to see the updates within the system.
* Training / System Migration
  + The ITRO staff are bound to learn and familiarize themselves with the new system to utilize it to its fullest extent along with its features and functionalities.

**Project Assumptions:**

1. The ITRO, as well as their clients have access to the internet through APC Rams Wi-Fi (or personal data/ISP) along with the necessary devices to use the web application.
2. The ITRO Staff would be trained in using the new web application.
3. The web application will be developed without any major technical issues or roadblocks.
4. *The web-app will be deployed by the client using their resources with sufficient processing power, memory, and storage.*
5. The web application will be developed within the given timeline (the entirety of PBL1).
6. The APC faculty and students would utilize the new system instead of the email-based reporting system.
7. The ITRO would properly launch and promote the new system.
8. The email notification system will work without any issues.

**Project Dependencies:**

1. The team will use Laravel, an open-source PHP web framework for developing web applications.
2. The team will use MySQL as their database for the web application.
3. The ITRO would provide the developers with accurate information about their office and services.
4. The users need access to the internet and the necessary devices to use the web application.
5. The web application needs to be hosted on a reliable and secure server provided by ITRO.
6. The web application should have access to a reliable and fast internet connection.
7. The email notification system should have access to a reliable and fast internet connection.
8. Microsoft Outlook should function accordingly in order to send the email-based notifications.
9. The web browser/s upon which the application would be opened should be free of viruses or malware and is reliable.

### 6.2.6 Work Breakdown Structure

1. RAMs Corner : ITRO Ticketing System
   1. Initiation
      1. Initial Planning/Brainstorming
      2. Client Selection
         1. Deliverable: Client Signed Form
      3. Advisor Selection
         1. Deliverable: Advisor Signed Form
      4. Milestone: Project Idea
   2. Planning
      1. Project Meeting with Members
         1. Deliverable: Minutes of the Meeting
      2. Project Meeting with Advisor
         1. Deliverable: Minutes of the Meeting
      3. Project Meeting with Client
         1. Deliverable: Minutes of the Meeting
      4. Project Proposal Drafting
         1. Chapter 1 Progression
         2. Chapter 2 Progression
         3. Chapter 3 Progression
         4. Chapter 4 Progression
         5. Chapter 5 Progression
         6. Chapter 6 Progression
      5. Project Proposal Editing
      6. Deliverable: Project Proposal Submission
      7. Project Proposal Revision
      8. Milestone: Project Proposal Approval
   3. Systems Analysis and Design
      1. Project Meeting with Members
         1. Deliverable: Minutes of the Meeting
      2. Project Meeting with Advisor
         1. Deliverable: Minutes of the Meeting
      3. Project Meeting with Client
         1. Deliverable: Minutes of the Meeting
      4. Deliverable: System Design
         1. Event Table
         2. Use Case Diagram
         3. Use Case Full Description
         4. Context Diagram
         5. Data Flow Diagram
         6. Entity Relationship Diagram
         7. Activity Diagram
         8. Object Diagram
         9. Class Diagram
         10. Sequence Diagram
         11. State Transition Diagram
         12. Package diagram
         13. Component Diagram
         14. Deployment Diagram
      5. System Design Editing
      6. System Design Submission
      7. System Prototype Design
         1. Low fidelity Wireframe
         2. High Fidelity Wireframe
         3. System Prototype running on browser
      8. Milestone: System Design Approval
   4. System Prototype
      1. Project Meeting with Members
         1. Deliverable: Minutes of the Meeting
      2. Project Meeting with Advisor
         1. Deliverable: Minutes of the Meeting
      3. Project Meeting with Client
         1. Deliverable: Minutes of the Meeting
      4. Deliverable: Working Prototype
         1. Initial Prototype UI/UX
         2. Milestone 1: Release 1 of Working Prototype
         3. Backend Development
         4. Milestone 2: Release 2 of Working Prototype
      5. Working Prototype Revision
      6. Milestone 3: Release 3 of Working Prototype
      7. Verify Use Case Requirements
      8. Run the system on browser
   5. Execution
      1. Project Meeting with Members
         1. Deliverable: Minutes of the Meeting
      2. Project Meeting with Advisor
         1. Deliverable: Minutes of the Meeting
      3. Project Meeting with Client
         1. Deliverable: Minutes of the Meeting
      4. Milestone: Project Management Plan
         1. Business Case
         2. Project Charter
         3. Stakeholder Analysis
         4. Stakeholder Management Analysis
         5. Cost Management Analysis
         6. Cost Management Plan
         7. Schedule Management Plan
         8. Scope Management Plan
         9. Work Breakdown Structure
         10. Work Packages
         11. Human Resource Management Plan
         12. Quality Management Plan
         13. Risk Management Plan
         14. Communications Management Plan
         15. Procurement Management Plan
         16. Implementation Plan
         17. Change Management Plan
      5. Procure Hardware/Software Materials
      6. Testing
         1. Unit Testing
         2. User Acceptance Testing (UI/UX)
         3. Functional Testing
      7. Deploy running system to internal users (ITRO)
      8. Train general users
      9. Deploy whole running system (ITRO/Clients)
   6. Control
      1. Project Meeting with Members
         1. Deliverable: Minutes of the Meeting
      2. Project Meeting with Advisor
         1. Deliverable: Minutes of the Meeting
      3. Project Meeting with Client
         1. Deliverable: Minutes of the Meeting
      4. Set up Kiosk for localize deployment
      5. Project Maintenance
      6. Update Project Management Plan
      7. Promotion/Advertisement
   7. Closeout
      1. Auditing
      2. Narrative Reports
      3. Update Reports
      4. Gain Formal Acceptance
      5. Archive Files/Documents

### 6.2.7 Scope Verification

The project team, Nacor Industries, will conduct scope verification upon each meeting with the client and the project advisor to ensure that the deliverables are in line with the original scope. In accordance with the scrum-fall methodology *(see figure 1 for reference),* this will guarantee that the deliverables are accepted by the client and the project advisor and will ensure that the project will be finished on time and within the scope and budget.

### 6.2.8 Scope Control

Prior to any pivotal changes that may occur within the project’s development, the team ensures that each decision would need to first be approved by the stakeholders, especially the client: APC-ITRO, before getting greenlit. This process would be documented accordingly with regards to the team’s

## 6.3 Cost Management Plan

The purpose of the Cost Management Plan for the Rams Corner Ticketing Service System is to efficiently manage all expenses related to the project from start to finish. The plan establishes guidelines and criteria for measuring, reporting, and regulating the project's costs.

1. **Cost Management Responsibilities**
   * In addition to overseeing the project's cost management, the Project Manager will collaborate with the project team and stakeholders to establish cost management objectives, develop cost estimates, and monitor and control project expenses to ensure that the project stays within budget.
2. **Cost Change Approval**
   * The designated authority would review the proposed change and assess its impact on the project's budget, schedule, and overall goals. They would then decide whether to approve or reject the change based on these factors.
   * If the additional cost represents less than 10% of the total project budget, you will need approval from the Project Manager. However, if the cost increase exceeds 10% of the total project budget, you would need to seek approval from the Project Sponsor.
3. **Cost Measurements and Reports**
   * Cost performance can be quantitatively measured and reported upon by analyzing the planned versus actual costs incurred during a project.
   * These reports may include metrics such as Cost Performance Index (CPI) and Schedule Performance Index (SPI), which provide a quantitative assessment of cost and schedule performance, respectively.
4. **Budget Format**
   * The budget for the project will be presented in a straightforward and easy-to-understand format, using a spreadsheet program such as Excel. The budget will be itemized into individual line items, each with a detailed cost estimate, and updated monthly with any changes clearly marked.

In essence, the Cost Management Plan devised for the RAMS Corner Ticketing Service System aims to guarantee that every expense related to the project is efficiently handled and regulated, thus enabling the project to be executed within the agreed-upon budget. Such a plan would contribute to the successful and timely completion of the project.

### 6.3.1 Cost Management Approach

The Cost Management Approach of the RAMS Corner Ticketing Service System will be based upon the following.

* **Planning**

The team will monitor project expenses, regularly report on deviations from the budget, and take corrective action when necessary, ensuring transparency and accountability throughout the project's lifecycle.

* **Cost Estimation**

The cost estimate will be regularly updated to reflect any changes in the project's scope or budget and will serve as a baseline against which all project costs will be measured. This will enable the team to track and manage project costs effectively, adjusting as needed to ensure that the project is completed within budget and on schedule.

* **Budgeting**

The budget will serve as a guide for managing project expenses, and it will be regularly monitored and adjusted as necessary to ensure that the project remains on track. The project team will use the budget to prioritize expenditures, allocate resources effectively, and make informed decisions that maximize the value delivered to the community.

* **Cost Reporting**

These reports will be reviewed by project stakeholders to ensure that everyone is aware of the project's financial status and can take appropriate action if necessary. The team will use the reports to identify trends and patterns in project costs, allowing them to adjust their cost management strategies accordingly. In addition, these reports will provide transparency and accountability, ensuring that stakeholders can make informed decisions based on accurate and up-to-date information.

* **Risk Management**

The project team will conduct ongoing risk assessments to identify potential risks that may impact project costs and develop strategies to mitigate these risks. The team will also regularly monitor the effectiveness of these strategies and maintain a risk register to document all identified risks and their corresponding mitigation plans.

The Cost Management Approach we have devised intends to guarantee that the RAMS Corner Ticketing Service System is executed within the authorized budget, adheres to project objectives, and provides a product of superior quality that caters to the community's requirements.

### 6.3.2 Measuring Project Costs

Measuring cost performance is a crucial aspect of controlling project costs, and there are several techniques that can be used for this purpose. These techniques include methods such as cost variance, earned value management (EVM), cost performance index, and the Schedule Performance Index.

Below, we'll provide more information about each of these methods for measuring cost performance.

1. **Cost Variance**

Cost Variance (CV) is a technique used for measuring the difference between the Earned Value (EV) and the Actual Cost (AC) of the work completed. It provides an indication of whether the project is under budget or over budget. CV is calculated by subtracting the AC from the EV

**CV = EV - AC**

1. **Earned Value Management**
   * Earned Value Management (EVM) is a widely accepted and effective technique for measuring project performance in project management. The technique integrates the three key elements of scope, time, and cost, providing a holistic view of the project's progress and performance.

**(SV) = EV – PV**

1. **Cost Performance Index**
   * The CPI provides a measurement of the value of work accomplished in relation to the actual cost of the work completed. It is calculated by dividing the EV by the AC.

**(CPI) = EV / AC**

1. **Schedule Performance Index** 
   * The Schedule Performance Index (SPI) is a technique used to measure the project's schedule performance. The SPI provides a measurement of the progress achieved in relation to the work scheduled. It is calculated by dividing the Earned Value (EV) by the Planned Value (PV). The SPI value greater than 1 indicates that the project is ahead of schedule, while an SPI value less than 1 indicates that the project is behind schedule.

**(SPI) = EV / PV**

### 6.3.3 Reporting Format

The stakeholders will receive a progress report on a weekly basis to update them on the cost status of the project. The report will have a section called "Cost Management" which will provide information on the Earned Value Metrics (EVM), including Schedule Variance (SV), Cost Variance (CV), Schedule Performance Index (SPI), and Cost Performance Index (CPI), for evaluating the project's progress and cost performance. If the project's cost goes beyond the predefined limits, the report will include details of the issue and the corrective actions planned. The report will also monitor change requests resulting from cost overruns to ensure they align with the project budget. These updates will be shared with stakeholders weekly to ensure timely decision-making and maintain transparency.

### 6.3.4 Cost Variance Response Process

The process for responding to cost variances involves identifying the root causes of the variance, assessing its impact on the project, and developing a plan to address it. First, the project team will investigate the causes of the cost variance, which could be due to changes in scope, resource allocation, or unexpected expenses. Once the causes have been identified, the team will assess the impact of the variance on the project's budget and schedule to determine the severity of the situation.

Based on this assessment, the team will develop a plan to address the cost variance. This plan may involve cutting costs in other areas of the project, renegotiating contracts with vendors, or requesting additional funding from stakeholders. The plan will be presented to the project sponsor or steering committee for approval before any action is taken. Once the plan has been approved, the team will implement it and monitor its effectiveness to ensure that the project stays on track.

The Control Thresholds for this project are a CPI or SPI of less than 0.8 or greater than 1.2. If the project reaches one of these Control Thresholds a Cost Variance Corrective Action Plan is required. The Project Manager will present the Project Sponsor with options for corrective actions within five business days from when the cost variance is first reported. Within three business days from when the Project Sponsor selects a corrective action option, the Project Manager will present the Project Sponsor with a formal Cost Variance Corrective Action Plan. The Cost Variance Corrective Action Plan will detail the actions necessary to bring the project back within budget along with how the effectiveness of the actions in the plan will be measured. Upon acceptance of the Cost Variance + Corrective Action Plan it will become a part of the project plan and the project will be updated to reflect the corrective actions.

### 6.3.5 Cost Change Control Process

The RAMS Corner Ticketing Service System aims to provide APC Staffs, Faculty, and Students to have an easier access to the ITRO, To create a single software application that receives and automatically sorts out and manage tickets of clients’ requests and queries received by the ITRO.

* **Identification for Change**
  + The initial phase of the Cost Change Control Process is the Identification for Change, which entails identifying and documenting potential changes that could affect project costs. For a RAMS Corner Ticketing System Service project, potential changes may involve additional features, hardware or software upgrades, or changes in scope that could necessitate additional resources.
* **Asses the Change Request**
  + In evaluating a change request, it is crucial to use objective measures such as the project's goals, objectives, and requirements. Furthermore, the project team must consider the potential risks associated with the proposed changes and determine whether additional mitigation strategies are necessary.
  + If the change request is deemed necessary and feasible, the project manager should seek approval from the project sponsor or other appropriate stakeholders before proceeding with the change. If the change request is not approved, it should be documented and the reasons for the rejection should be communicated to the requester.
* **Analyze the Change Request** 
  + In this phase, the project team must collect all relevant information to assess the scope of the change request's impact. This includes identifying which areas of the project will be affected by the change, evaluating the resources necessary to implement the change, and analyzing the potential risks linked with the change.
  + Once the analysis is complete, the project team should provide a detailed report that includes an estimate of the cost and schedule impact of the change. The report should also include any recommendations for alternative solutions or mitigation strategies to minimize the impact of the change.
* **Implement the Change Request**
  + It's important to note that implementing a change request may have implications beyond just cost, including impacts on project scope, schedule, and quality. The project team should carefully consider all of these factors and communicate any potential impacts to stakeholders as part of the implementation process.
  + Once the change has been implemented, the project manager should review the results and update any relevant documentation to reflect the change. This may include updating project budgets, schedules, and status reports to reflect the impact of the change on project costs.
* **Change Request Closure**
  + During the Change Request Closure step, the project team should conduct a final review of the change log to ensure that all approved changes have been properly implemented and that their impact on the project's cost baseline has been accurately reflected in the project's financial records.

### 6.3.6 Project Budget

The budget for this project, together with the other possible expenses for this project are presented in various categories in detail through the table below:

Table

Description automatically generated

## 6.4 Schedule Management Plan

### 6.4.1 Introduction

The schedule management plan plays a vital role towards the accomplishment and documentation of each task so that the team may be able to work as efficiently as possible. By going through this section, readers can appreciate the approach of the team to finish their project from scratch along with their milestones done within the timeframe of the project and how the team was able to develop the software and thought process whilst developing the project.

### 6.4.2 Schedule Management Approach

Throughout the project’s lifetime, the team is able to submit all deliverables needed. Each work that was assigned to each member has a specific deadline to help the team estimate how many resources will be needed to finish all the needed tasks before proceeding.

To create the project schedule, the team used software named ‘Project Libre’ to create a Gantt Chart. In this Gantt Chart, all the activities and deliverables are listed and recorded. In this way, it is much easier to monitor the project’s growth over time.

See reference below of the start and end date of deliverables for project schedule:

A picture containing text, menu, number, document

Description automatically generated

A picture containing text, menu, document, number

Description automatically generated

A screenshot of a computer

Description automatically generated with low confidence

A screenshot of a document

Description automatically generated with low confidence

One of the benefits of finishing the activities first is that it may reveal changes that are overlooked and need immediate revisions. In this case, this may slow down the progression of the project. When this happens, the team needs to weigh which changes that can have a significant impact. If changes happen, the project adviser is consulted before implementing the changes. In the roles and responsibilities section, you can determine here the scope of work of the people who are assigned to the roles.

|  |  |
| --- | --- |
| Roles | Responsibilities |
| Project adviser | * + Responsible for guiding the team   + Oversees that the changes and updates are aligned to the scope of work |
| Project leader | * Spearheads the project * Overlooks the documentation and software changes/updates * Approves the changes/updates made within the software and paper under his/her authority |
| Product owner | * Communicates with the project leader and project advisor for product vision * Responsible for making sure that the deliverables are on time and presentable. |
| Scrum master | * Develops the project deliverables * Oversees that the methodology that is used is consistent |
| Scrum member | * Helps the scrum master on the deliverables |

### 6.4.3 Schedule Control

Throughout the project lifetime. Updating, deleting, and revising information are bound to happen. Changes within the project are monitored in case the changes are getting slightly off the scope of work. The team would collaborate with the project adviser if the request change were significant to the project.

The project manager will lead the meeting together with the team to discuss the ideas that were added to the equation. The project manager will be managing the schedule of the meetings, updates made within the project, and identifying which tasks are to be done first.

Upon successful compliance, the rest of the team would collaborate to brainstorm and present their ideas since the team’s communication is one of the keys to the success of the project.

### 6.4.4. Schedule Changes and Thresholds

When developing a project, it is common to have some delays throughout the duration of the project, when the team feels the project will be delayed and it will require more time to finish. Setting a limit or parameter is important so that in case the project is delayed, less resources are to be used to make up for the loss of time.

If the team requests an extension, the project manager should submit a schedule change request. The person who is responsible for approving the request would be the project sponsor. The project sponsor would review the request and have the power to grant the request under his/her authority.

If the change request is approved. The team would then set up a meeting and begin to thoroughly review and examine the adjustments needed for the project. One of the many factors that affect the schedule is poor management skills. This should be addressed so that it will not happen with other future projects to come.

The product owner, product adviser, and project client must have a meeting and discuss which part of the project will be affected by the potential change. It would then be reviewed to gauge how much resources it would require to be able to finish the project, and most importantly, how it will affect the project scope. It is also important to take note that the project schedule will also be affected by the changes. Finding alternatives is also crucial as it may help to resolve the problems.

### 6.4.5. Scope Change

If an issue is overlooked and immediate change is needed. Revising or updating the project scope is the best option there is. Throughout the project's lifetime, changes are inevitable. It is always to be expected that changes might happen from time to time.

## 6.5 Staffing Management Plan

### 6.5.1 Introduction

The staff or team serves as a model for how the project will be led and organized, and it helps to guarantee that the correct individuals, with the necessary credentials, are there at the appropriate time. The strategy includes metrics for performance management as well as roles and responsibilities and communication procedures because the success of the project depends on a solid human resource management plan.

The project manager and project team can successfully manage the project by making sure that everyone on the team is aware of their duties and responsibilities, that communication is clear and efficient, and that performance is tracked and managed in a way that supports the project's success.

### 6.5.2 Roles and Responsibilities

A project must have a team that has a strategy in place in order to succeed as it clarifies the duties and responsibilities of each member of the project team and the client, and to make sure that everyone in the team is aware of their own contributions.

To ensure that resources are distributed and used efficiently, the plan guarantees that the appropriate individuals are in the appropriate roles to accomplish project successfully by explicitly identifying competences and skill needs.

Overall, the project team is guided toward effective project execution and delivery by the human resources management strategy, which serves as a road map.

|  |  |  |  |
| --- | --- | --- | --- |
| **Role** | **Authority** | **Responsibility** | **Competency** |
| Project Client | One that provides the ideas and asks for help for the project team to fulfill. the one who also approves the project’s business case and budget.  able to assign project resources and give high-impact approval for modifications to the project's scope, timeline, and budget. | Ensures if the team is producing good results. Gives insights and advice to the team and project manager.  Assists in updating the company on the status and advantages of the project. | strong capacity for strategic thought and leadership communication.  Profound comprehension of the organization's mission, objectives, and values. Possibility of providing the initiative with resources and support. |
| Project Adviser | The Project Advisor is responsible for providing technical expertise and advice to the team to ensure the project’s products meet the client. Monitors the progress of the team, facilitates effective communication among the team members, and provide updates and insights. | Helps in the project planning and provides insights for each team member and their specific roles. Develops strategies for the team and guarantees that the quality of the project is good. | Provide guidance and supports the team. Possesses a deep understanding of the project and the things that are needed to do in the project. Has the planning and analytical skills to develop strategies and assess the project. |
| Project Manager | Handles the team and makes the decisions, can distribute project resources, and provide the go-ahead for low-impact adjustments to the project's scope, timetable, and budget. | Has the authority and the ability to oversee all the aspects of the project including its, planning, implementation, monitoring, and release. | Solid understanding of the project, leadership skills, communicating skills, and project management skills, risk management skills, team management and can learn continuously and develop their knowledge. |
| Internal Users of the system (Programmers) | Has access to the system and the power to improve and decode errors when necessary. | In charge of coding the software and UI/UX of the project and handles the system. | Has the technical expertise, background, talents, and experience necessary to build software solutions successfully. |
| External users of the system (Project Documentator) | Handles the paper and documents the process of the project from start to end. | In charge of the documentations and the deliverables of the project. | The ability to efficiently develop and manage project documentation is possessed by a documentation specialist, who possesses a range of abilities, expertise, traits, and skills. |

### 6.5.3 Project Organizational Chart

Project organizational chart of APC ITRO Ticketing System provides a visual representation of the project team and the relationships between the key stakeholders. Where the client of the project is in the top, followed by the project adviser who is responsible for giving the team guidance and insights. Then The project manager, who oversees overseeing the project's resources, scope, and timeline, is often listed above the project sponsor on the organizational chart. Lastly the team projects members, who are responsible for the success of the project and fulfilling the request of the client.

Vincent Nacor – Project Team (Project Documentators)

Patrick Cortez– Project Team (Project Documentators)

Allan Vincent Nefalar – Project Manager

Alvin Limpin – Project Adviser

Sir Jojo Castillo – Project Client

Bryan Geneta – Project Team (Project Documentators)

Ruth Morallos – Project Team (Programmers)

Kieyl Ponce – Project Team (Programmers)

### 6.5.4 Staffing Management

A vital element in guaranteeing the APC ITRO Ticketing System project's effective execution is the staff management plan. Throughout the project lifetime, it describes the tactics and procedures for recruiting, supervising, and releasing human resources.

* To guarantee that the required skills and knowledge are available when needed, human resource acquisition will be completed promptly. This can entail using internal workers or engaging contractors in addition to existing employees. To guarantee that resources are accessible when required, the acquisition timeframe will be coordinated with the project schedule.
* To evaluate team members' performance and pinpoint areas for development, performance evaluations will be done on a regular basis. The effectiveness of the team's performance in reaching the goals and expectations of the project will also be evaluated through these evaluations.
* A rewards and recognition system will be implemented to acknowledge and motivate outstanding performance.

The project's goals and requirements will be taken into consideration when the Staffing Management Plan is periodically reviewed and amended as appropriate. To ascertain if any extra things need to be included in the staffing management plan, it is critical that the project manager perform a comprehensive examination of the project's unique requirements and rules.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Role | Project Responsibility | Skills Required | Number of staff | Performance Reviews | Performance Reviews |
| Project Adviser | Provides insights to the project manager and the project members.  Gives details on how the project should progress and be made. | Communication  Problem Solving  Technical Knowledge for the team’s project | Depending on the project's size and complexity.  formulated in cooperation with other stakeholders | To evaluate team members' work, offer comments, and handle any problems, the project adviser will hold frequent meetings regarding the progression of the project. | The project adviser will implement a recognition and rewards system to motivate team members and encourage high performance. |
| Project Manager | Is the project team leader and oversees efficient planning of the project and its execution.  Create a thorough project strategy and establish a project goal.  Communicates or conveys the project status and progress to the client. | Leadership  Communication  Problem Solving  Analytical Skills  Adaptability  Technical Knowledge | Depending on the project's size and complexity.  formulated in cooperation with other stakeholders | The project manager will collaborate with team members to establish realistic performance targets and monitor their advancement. | The project manager will implement a recognition and rewards system to motivate team members and encourage high performance. |
| Project Team Members | Executing the tasks and duties given by the project manager and implement the project adviser’s idea.  To guarantee that project activities are finished on schedule and within budget, people must properly manage their time and work.  Inform the project manager or leader of the progress and status.  Participate in project meetings and discussion by contributing ideas. | Time management  Communication  Collaboration & Cooperation  Technical Skills  Problem-solving | Depending on the project's size and complexity.  formulated in cooperation with other stakeholders | Evaluations will be based and determined from the performance of the team members and reporting regarding the project’s progress.  according to the demands of the project and the rules of the business. | The project manager or adviser will implement a recognition and rewards system to motivate team members and encourage high performance. |
| Project Client | Following up on project developments and giving the project team direction and assistance  Ensure that the project is in line with the objectives and vision of the company.  Give the project strategic leadership and direction. | Leadership  Strategic Thinking  Communication  Risk Management  Budget Management | The client is a top executive or board of directors’ member.  Possibly assisted by project management office or other support personnel. | The client may assess the recipient's performance by  to make sure they are adhering to the standards and objectives of the company for the project.  The client could also receive updates regarding the project’s progression from the project manager | The client may recognize and reward the project team for their achievements and progress towards the project's goals. |

## 6.6 Change Management Plan

### 6.6.1 Introduction

The Change Management Plan was created for the RAMS Corner: Ticketing Service to monitor the targeted goals and expectations on how the changes will be dealt with, what features are added and removed, the purpose and the why’s that the said feature was added and removed, and the overall changes made in the process until the project is complete. The Project Beneficiary (ITRO Department) will be expected to submit or require changes to the Project to furthermore cater for the needs of the said department. in accordance with this Change Management Plan, the department will be expecting an explanation and the submission for the request will be processed.

**CHANGE MANAGEMENT APPROACH**

The Change Management approach for the RAMS Corner: IT Ticketing Service System will guarantee that all proposed changes are detailed, fully analyzed, and acknowledged upon making the changes so that they are properly implemented throughout the project. And before applying the changes, it is to be certain that the team and the Project beneficiary had a meeting and agreed on the changes. in this way, the changes made in the system are verified by the Project beneficiary and it is still in the scope of the project.

* The changes are only within the scope of project
* Find an efficient way to implement the changes
* Record the changes that was and being made throughout the project

The Change Management process has been designed to make sure this approach is followed for all changes. By using this approach methodology, the Rams Corner: IT Ticketing service will prevent unnecessary or unappropriated changes from happening and will only focus its time and effort on the necessary updates and such.

**DEFINITIONS OF CHANGE**

Changes should be applied in the project depending on the circumstances that will encounter by the project team, all the significant changes will be consulted first directly to the Project beneficiary which is ITRO Department Office through Mr. Jojo Castillo the ITRO Head, this is to ensure that proposed changes for both system and project documentation should still be correlated in the scope of their work. Also, the weekly consultation with the project adviser Mr. Alvin Limpin will provide necessary details to guide the project team to plan and apply appropriate changes in the system and project documentation, this is to ensure that changes applied will still be accepted in an industry standard approach

These changes may include:

* Documentation Changes, as the Project Based Learning course provide panelist from college faculty that will thorough examine that project documentation, system design, and prototypes allowing them to point out the changes needed for both project documentation and system. All the recommended changes from the panelist will be optional in such circumstances as both Project Beneficiary and Project Adviser will confirm if the recommended changes will be certain for the project. As said, if these recommended changes should take place, extra time for work should be rendered by the project team in order to fill the gaps whether it’s minor or major adjustments.
* Consultation Schedule Changes, the project team consults with the Project beneficiary as well as the project adviser to ensure that the project keeps on the right track of development. Both project advisor and the ITRO head have tentative schedules due to their nature of work, that is why project consultation schedules might change anytime thus making the team delay on a specific task in the project waiting for clarifications before changing anything in the documentation and the system.

### 6.6.2. Change Control Board

|  |  |  |
| --- | --- | --- |
| **Name** | **Position** | **CCB Role** |
| Ruth Morallos | Backend Developer | Software Developer |
| Allan Vincent Nefalar | Frontend Developer | Project Manager |
| Bryan Denylle Geneta | Frontend Developer | Software Developer |
| Kieyl Ponce | UI/UX Designer | Product Owner |
| Vincent Nacor | Documentation team | Project team |
| Patrick Cortez | Documentation team | Project team |

### 6.6.3. Roles and Responsibilities

The following are the roles and responsibilities for all change management efforts related to the Rams Corner: IT Ticketing Service System

Project Manager

* Works on both project Documentation and System Development
* Leads the project team
* Assign and distribute work to the team

Frontend/Backend Developer

* Develops the Backend and Frontend of the System
* Tests and maintains the system development

UI/UX Developer

* Designs the UI/UX of the System
* Implement System Design

Project team role

* List down the panelist comments and suggestions for all the changes in the system
* Consult with the ITRO Department Head about the request changes on the system to be made
* Provide all applicable information and detail on change request from the ITRO Department Head
* Consult the project adviser to list all information on what standard processes and execution should be done appropriately before applying the changes in the system.
* Be prepared to address questions regarding any submitted changes in the system

### 6.6.4. Change Control Process

The Change Control Process for the Rams Corner: Ticketing Service will follow the organizational standard change process for the ongoing project. The project manager has overall responsibility for executing the change management process for each change request.

1. Identify the need for a change (Stakeholders) - apply the necessary revisions based on the panelist's comments.

2. Log change in the change request register (Project Manager) - list’s and records the panelist's comments. The team would then conduct a meeting with the client and the project advisor.

3. Evaluate the change (Project Manager, Team, Requestor) – before applying the necessary changes, a meeting should be held by the team and the project beneficiary analyzing and reviewing the change requests.

4. Submit a change request to CCB (Project Manager) – upon a careful review, the team would then list the important points made by the project beneficiary that would help to deliver a quality system.

5. Obtain Decision on change request (CCB) – together with the project advisor, the CCB and the project advisor would discuss if the proposed changes would still be in the scope of the project.

6. Implement change (Project Manager) – If a change is approved by the CCB and the project advisor. The necessary changes would then be applied and added to the paper.

## 6.7 Communications Management Plan

### 6.7.1. Introduction

The Communication Management Plan (CMP) is an essential tool for ensuring that the Rams Corner Ticketing Service System project is successful. It provides a framework for effective communication between the project team and stakeholders, which is essential for ensuring that the project stays on track and meets its objectives.

Here are some additional details about the CMP:

1. The type of information that will be communicated, such as project updates, progress reports, risks, and issues.
2. The plan outlines the ways we will communicate, such as meetings, emails, phone calls, and web portals, so that everyone stays informed on time.
3. The plan establishes a schedule for project communications, encompassing both formal and informal methods, to regularly update stakeholders and keep them well-informed.
4. The communication management plan designates the project communication responsibility to the person or team assigned as the project's official spokesperson, ensuring they are accountable for conveying project information effectively.
5. The plan delineates the distinct communication requirements of each stakeholder and describes how those needs will be addressed, including considerations for language preferences and accessibility accommodations.
6. The plan specifies the allotted resources, including budget and personnel, to ensure effective and efficient communication.
7. The strategy outlines the procedures for sharing private or important information, including those in charge of permitting the release of the information.
8. The strategy lays forth a framework for managing changes to communication or the communication process, including the procedures for proposing, evaluating, and approving changes. This ensures that all parties are updated on any changes and keeps the communication channel open throughout the project.
9. The project's communication mechanics are depicted in the plan, along with the channels by which team members, stakeholders, and other project participants can exchange information. This helps to ensure that information is shared quickly and effectively and that all stakeholders are kept informed.
10. The strategy identifies any internal or external constraints, such as legal or regulatory requirements, that could affect project communications and provides an approach to deal with them.
11. The project plan specifies the use of standardized templates, forms, or papers to convey project information, such as minutes of the meeting or progress reports. This guarantees that all interested parties receive reliable information.
12. The strategy includes a process for escalating conflicts or communication problems that can come up throughout the project. By doing this, it is ensured that any communication-related problems are quickly addressed and fixed.

In conclusion, the Communications Management Plan is an essential tool for ensuring that the Rams Corner Ticketing Service System project's stakeholders are fully informed, and that communication is effective and efficient.

### 6.7.2. Communications Management Approach

As a Project Manager, it is crucial to have an effective communications management approach to ensure smooth project execution and minimize potential problems. Here is an overview of a comprehensive communications management approach:

1. **Clear Project Objectives:**

Make sure that all stakeholders are informed of the project's goals and expectations. In addition to facilitating efficient communication throughout the project lifetime, this clarity helps bring everyone's understanding of the project goals into alignment.

1. **Two-way Communication:**

By cultivating a culture where team members feel comfortable sharing their thoughts, worries, and updates on progress, you can promote open and honest communication. Give stakeholders a chance to voice their opinions and offer forums for discussion.

1. **Regular Reporting:**

Implement a reporting structure that gives all stakeholders regular information on the status, milestones, and hazards of the project. Based on the requirements and preferences of the stakeholders, decide on the reporting schedule and format.

Project managers may encourage effective cooperation, reduce risks, deal with problems quickly, and make sure that project stakeholders are informed and involved throughout the project lifecycle by putting this communications management method into practice.

### 6.7.3. Communications Management Constraints

The Rams Corner Ticketing Service System's communications management constraints play a critical role in the detailed project management plan. The limitations and boundaries that may impact the project's communication processes and tactics are established with the help of these constraints. The project team can take proactive steps to address potential difficulties by being aware of and addressing these limits, enabling a smooth flow of information throughout the project.

When implementing The Rams Corner Ticketing Service System, it's important to consider the communications management constraints mentioned.

1. **Time Constraints:**

Time-sensitive deliverables and deadlines are a common feature of projects, which can make communication difficult. The whole flow of communication may be impacted by the limited time available for meetings, decision-making, and delivering feedback.

1. **Language barriers:**

If team members or stakeholders communicate in different languages, there might arise a necessity for translation services or supplementary resources to enable effective communication.

1. **Technology limitations:**

The sorts of communication that can be employed and the population that can be reached may be constrained by the accessibility and capabilities of communication technology. It could be challenging to organize live videoconferences, for instance, if a project team is dispersed across several time zones.

1. **Technical difficulties:**

Problems with network connections, power interruptions, hardware failures can disrupt communication channels, leading to delays or interruptions in transmitting information. This can hinder real-time communication and affect the overall efficiency of communication management.

### 6.7.4. Stakeholder Communication Requirements

The Stakeholder Communication Requirements play a vital role in the Rams Corner Ticketing Service System by defining the unique communication needs of stakeholders and the project team. By understanding and addressing the communication requirements of various stakeholders, project teams can ensure that project information is disseminated efficiently, and that stakeholder interests and expectations are properly managed.

Here are some steps to develop a stakeholder communication management plan:

1. **Communication Channels:**

The team should identify the most suitable communication channels and methods for reaching each stakeholder group. This can be achieved by considering a combination of communication tools such as email, meetings, newsletters, website updates, social media, and dedicated customer support lines.

1. **Transparency:**

Establishing transparent and open communication builds trust and credibility among stakeholders as it involves sharing information regarding the project's progress, goals, objectives, and expected outcomes.

1. **Feedback mechanisms:**

Establish channels for stakeholders to provide feedback, ask questions, or raise concerns. This can be in the form of dedicated feedback sessions, surveys, email addresses, or designated contact persons. Ensure that stakeholders have a means to express their opinions and that their feedback is actively solicited and acknowledged.

1. **Document and archive:**

The plan should be a living document that is regularly updated to reflect any changes in stakeholders, objectives, or communication requirements. Share the plan with the project team and stakeholders to ensure alignment and understanding.

### 6.7.5. Roles

1. **Class Adviser**

The class adviser serves as a mentor and guide for students, providing advice, encouragement, and support. They may offer guidance on personal and career development, help students navigate challenges, and provide a safe space for students to discuss their concerns.

1. **Project Adviser**

The project adviser assists in the planning phase by providing expertise and advice on project scope, objectives, timelines, and resource allocation. They help the project team identify potential risks and develop strategies to mitigate them.

1. **Stakeholders**

Stakeholders have the responsibility to contribute their input regarding the project's scope, including requirements and expectations. Additionally, they are accountable for accepting the project deliverables as outlined within the project's scope. Maintaining regular communication between the Project Manager and stakeholders is crucial to ensure ongoing alignment of the project with their needs and expectations.

1. **Project Manager**

The role of a project manager is essential in effectively planning, executing, and delivering projects. Project managers are responsible for overseeing the entire project lifecycle and coordinating various aspects to achieve project objectives.

1. **Scrum Master**

The Scrum Master facilitates the Scrum process by organizing and leading various Scrum events, such as daily stand-up meetings, sprint planning sessions, sprint reviews, and sprint retrospectives. They ensure that these events are conducted efficiently and that all team members actively participate.

1. **Scrum Members**

The Scrum Team is responsible for delivering value incrementally and iteratively, working in short timeframes called sprints. The team collectively decides how to accomplish the work, collaborates closely, and shares accountability for the success of the project. The roles within the Scrum Team are complementary, with each role bringing its unique focus and expertise to achieve the project's goals and deliver a high-quality product.

1. **Documentation Manager**

The Documentation Manager has the crucial task of supervising the project documentation to ensure its thoroughness and accuracy. They work closely with the Project Manager and the team to ensure that all project documentation aligns smoothly with the project's scope.

### 6.7.6. 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** | **Email** |
| **Class Adviser** | Jose Eugenio Quesada | [jlquesada@apc.edu.ph](mailto:jlquesada@apc.edu.ph) |
| **Project Adviser** | Alvin C. Limpin | [alvinl@apc.edu.ph](mailto:alvinl@apc.edu.ph) |
| **Stakeholder** | Jose F. Castillo | [jojoc@apc.edu.ph](mailto:jojoc@apc.edu.ph) |
| **Project Manager** | Allan Vincent Nefalar | [aonefalar2@student.apc.edu.ph](mailto:aonefalar2@student.apc.edu.ph) |
| **Scrum Master** | Ruth Morallos | [rrmorallos@student.apc.edu.ph](mailto:rrmorallos@student.apc.edu.ph) |
| **Scrum Members** | Patrick Cortez  Vincent Nacor  Bryan Geneta | [pacortez@student.apc.edu.ph](mailto:pacortez@student.apc.edu.ph)  [vanacor@student.apc.edu.ph](mailto:vanacor@student.apc.edu.ph)  [bdgeneta@student.apc.edu.ph](mailto:bdgeneta@student.apc.edu.ph) |
| **Documentation Manager** | Kieyl Ponce | [kdponce@student.apc.edu.ph](mailto:kdponce@student.apc.edu.ph) |

### 6.7.7. Communication Methods and Technologies

A comprehensive grasp of diverse communication methods and technologies is essential for the successful implementation of the Rams Corner Ticketing Service System, enabling effective communication with all stakeholders. It is crucial to consider the capabilities and limitations of each communication method and technology to ensure the timely and efficient dissemination of information. This involves selecting suitable methods for delivering project updates, progress reports, risks, issues, and other pertinent information to stakeholders.

When evaluating the most suitable communication methods and technologies for the Rams Corner Ticketing Service System, the following factors should be taken into consideration:

1. **Cost and Resources**

Assess the cost implications and resource requirements associated with the chosen communication methods and technologies. Consider factors such as equipment, software licenses, maintenance, and training needed for effective implementation.

1. **Time Sensitivity:**

Consider the urgency and time sensitivity of the information being shared. If real-time communication is crucial, options like instant messaging, video conferencing, or collaborative platforms may be more suitable. For less time-sensitive communication, email or project documentation systems may suffice.

1. **Accessibility and Availability:**

Consider the accessibility and availability of the chosen communication methods and technologies for all stakeholders. Ensure that everyone has the necessary tools and resources to participate in the communication process effectively.

1. **Complexity of Information:**

Evaluate the complexity of the information that needs to be communicated. Some concepts may require visual aids, diagrams, or presentations to ensure clarity and understanding. Assess whether the chosen communication methods and technologies can support such visual elements.

Based on these considerations, it is advisable for the Rams Corner Ticketing Service System to employ a blend of communication methods and technologies, which may include:

1. **Meetings:**

Face-to-face meetings, either in person or through video conferencing, are an effective way to facilitate communication among project team members. Meetings can be used for project kick-offs, progress updates, issue resolution, and decision-making.

1. **Video Conferencing:**

Video conferencing tools like Zoom, WebEx, or Microsoft Teams enable remote team members to have virtual face-to-face meetings, discussions, and presentations. Video conferencing helps maintain a personal connection and can be particularly useful for distributed or global teams.

1. **Email:**

Email is accessible to most stakeholders, as it is a common method of communication in professional settings. It can be accessed from various devices, including computers, smartphones, and tablets.

1. **Telephone:**

Utilize telephone calls for direct and prompt communication, especially when engaging with stakeholders in proximity or within the same geographical area.

Effective communication with all stakeholders is vital for the successful implementation of the Rams Corner Ticketing Service System. By considering factors such as cost, time sensitivity, accessibility, and complexity of information, a combination of communication methods and technologies can be utilized, including meetings, video conferencing, email, and telephone calls. This ensures efficient and seamless communication, fostering collaboration and project success.

### 6.7.8. Communications Matrix

The following table identifies the communications requirements for this project.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Channel** | **From** | **To** | **Type** | **Frequency** | **Format Used** | **Delivery media** |
| Project Planning | Project Manager | Stakeholders | Meeting | Prior to commencing the project | Formal | Email, MS Teams, Google Meet |
| Release Planning | Project manager, Project team | Stakeholders | Meeting | Revisions will be made as needed before the initiation of the project. | Formal | Email, MS Teams, Google Meet |
| Sprint Planning | Project manager | Project team | Meeting | Once a week | Informal | Email, MS Teams, Google Meet |
| Management processes | Project manager, project team | Stakeholders | Artifact | The project will be reviewed and updated as necessary before it begins. | Document | Email, Google Spaces, Google Docs, Google Drive, Microsoft 365 |
| Product Backlog | Project manager | Project team | Artifact | Once a week | Document | Google Docs,  Google Spaces |
| Project Update | Project Manager | Project team | Meeting | Once a week | Informal | Email, MS Teams, Google Meet |

### 6.7.9. Communication Flowchart

### 6.7.10. Guidelines for Meetings

Here are some general guidelines to help you conduct effective and productive meetings for the implementation of the Rams Corner Ticketing Service System:

1. **Objectives**

Determine the specific objectives of each meeting within the context of the project. Is it to provide updates, make decisions, gather feedback, or solve problems? Clearly define the purpose to ensure focused discussions.

1. **Agenda**

It is essential to have a pre-meeting discussion to establish the meeting agenda, including its purpose, discussion topics, and desired outcomes. This enables team members to adequately prepare for the meeting and ensures productive and focused discussions.

1. **Attendance**

Only invite individuals who are essential to achieving the meeting's objectives. Keeping the number of participants reasonable ensures a more focused and efficient discussion.

1. **Discussion**

Ensure that discussions are focused and productive. Keep the conversation on topic and prevent it from devolving into unrelated or lengthy tangents. Use techniques like round-robin style or go-around to ensure everyone has an opportunity to contribute.

1. **Time**

Determine the duration of the meeting and stick to it. Time management is crucial for maintaining participants' engagement and ensuring that discussions do not go off track. Begin the meeting promptly as scheduled, even if some participants are still joining. This encourages punctuality and demonstrates respect for everyone's time.

### 6.7.11. Communication Standards

Creating well-defined guidelines and protocols is crucial for facilitating effective and efficient communication within a team and among stakeholders. It is important to foster open channels of communication, allowing team members to freely express their thoughts and ideas. Encouraging active participation and providing opportunities for input from all team members can lead to more collaborative and innovative outcomes. Additionally, it is essential to ensure that the established communication standards are consistently adhered to throughout the entire web application development process. By maintaining clear guidelines and protocols, teams can minimize miscommunication, streamline workflows, and promote successful project outcomes.

Here are some common communication standards that can be established to promote effective communication within a team during web application development:

1. **Responsive Communication:**

Encourage team members to respond promptly to messages and requests, ensuring that communication is timely and avoids unnecessary delays.

1. **Regular Project Updates:**

Set expectations for regular project updates, such as status reports or progress meetings, to keep all stakeholders informed about the project's progress, milestones, and any potential challenges.

1. **Active Listening:**

Promote active listening skills among team members, encouraging them to attentively listen to others, ask questions for clarification, and paraphrase to ensure understanding.

1. **Collaboration:**

Encourage collaborative communication practices, such as sharing ideas, soliciting input from team members, and fostering a supportive environment that values teamwork.

1. **Documentation:**

Emphasize the importance of documenting key decisions, discussions, and actions taken during the project. This ensures transparency, facilitates knowledge sharing, and serves as a reference for future communication.

1. **Feedback:**

Encourage regular feedback and provide opportunities for team members to share their thoughts and suggestions on improving communication processes. Foster a culture of continuous improvement to enhance communication practices over time.

Remember that these standards can be tailored to fit the specific needs and dynamics for the development team.

### 6.7.12. Communication Escalation Process

When establishing a communication escalation process for the Rams Corner Ticketing Service System, it's important to have a clear and documented procedure that outlines the steps and guidelines for escalating issues when resolution cannot be achieved within the project team. Here is a general framework for a communication escalation process:

1. **Identify the Issue:**

The first step is to clearly identify the issue or complication that has arisen in project communications. This could be a breakdown in communication, unresolved conflicts, stakeholder disagreements, or any other communication-related problem.

1. **Review Documentation:**

Collect all relevant documentation, communication records, and any other evidence related to the issue. This will provide a clear understanding of the problem and help in the escalation process.

1. **Define Communication Channels:**

The development team must determine and establish the main methods of communication to be utilized for their project, such as email, project management software, or specific communication tools. It is essential for every team member to be knowledgeable about and could utilize these communication channels.

1. **Escalation Criteria:**

Define specific criteria that determine when an issue should be escalated. For example, if the issue has been ongoing for a certain period, or if it involves key stakeholders and significantly impacts project progress or objectives.

1. **Identify Escalation Points:**

Determine who should be involved in the escalation process. This may include project managers, senior management, or specific stakeholders depending on the nature of the issue. Clearly identify the roles and responsibilities of each escalation point.

### 6.7.13. Glossary of Communication Terminology