SOFTWARE REQUIREMENT SPECIFICATION  
For

DESIGN, DEVELOPMENT OF   
PRAAPTI WEB PORTAL and MOBILE APPLICATION

PRAAPTI 2.0   
  
By   
NetCreativeMind Solutions Pvt. Ltd.

**M/s. NetCreativeMind Solutions Private Limited   
Empanelled with NICSI vide   
Empanelment No:10(32)/2021-NICSI dated:23/09/2022**

DOCUMENT REVISION CONTROL

## Document History:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Name** | **Role** | **Date** |
| **Prepared By** | Aditya Kumar Singh | Business Analyst | 14/02/2025 |
| **Reviewed By** | Rishi Kumar | Project Manager | 14/02/2025 |
| **Approved By** |  |  |  |

## Revision History:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Date** | **Version No** | **Page No** | **Change Mode** | **Description** |
| **1** |  |  |  |  |  |
|  |  |  |  |  |  |

A-Added, M-Modified, D-Delete

Table of Contents

[Document History: 2](#_Toc208182703)

[Revision History: 2](#_Toc208182704)

[1. Introduction 4](#_Toc208182705)

[1.1 Document Purpose 4](#_Toc208182706)

[1.2 Document Coverage 4](#_Toc208182707)

[2. The Project 4](#_Toc208182708)

[3. The Client 4](#_Toc208182709)

[3.1 About the Client 4](#_Toc208182710)

[3.2 Role of Client 5](#_Toc208182711)

[4. About US 5](#_Toc208182712)

[4.1 Organisational Overview 5](#_Toc208182713)

[4.2 Relevance in the Project 5](#_Toc208182714)

[5. Preface 5](#_Toc208182715)

[5.1 Project Journey 5](#_Toc208182716)

[5.2 Planned Activities 5](#_Toc208182717)

[5.3 Action Plan 5](#_Toc208182718)

[6. Project Management 5](#_Toc208182719)

[6.1 Overview 5](#_Toc208182720)

[6.2 Governance Structure 5](#_Toc208182721)

[6.3 Agile Methodology 5](#_Toc208182722)

[6.4 Iteration Flow 5](#_Toc208182723)

[6.5 Risk Management 5](#_Toc208182724)

[6.6 Change Management Process 6](#_Toc208182725)

[6.7 Performance Metrics & Monitoring 6](#_Toc208182726)

[6.8 Documentation and Reporting 6](#_Toc208182727)

[6.9 Post Implementation Review 6](#_Toc208182728)

[6.10 Deliverables 6](#_Toc208182729)

[7. AS IS 6](#_Toc208182730)

[8. Business Requirement Document 6](#_Toc208182731)

[9. Functional Requirement Document 6](#_Toc208182732)

[10. Non-Functional Requriement Dcoument 6](#_Toc208182733)

[11. Software Requirement Specification 6](#_Toc208182734)

[11.1 Architectures 6](#_Toc208182735)

[11.1.1 System Architecture 6](#_Toc208182736)

[11.1.2 User Architecture 6](#_Toc208182737)

[11.1.3 Security Architecture 6](#_Toc208182738)

[11.1.4 DataBase Architecture 7](#_Toc208182739)

[11.2 Functional Modules 7](#_Toc208182740)

[11.2.1 Registration 7](#_Toc208182741)

[12. Annenxures 8](#_Toc208182742)

[13. Glossary 8](#_Toc208182743)

# Introduction

## Document Purpose

## Document Coverage

# The Project

# The Client

## About the Client

## Role of Client

# About US

## Organisational Overview

## Relevance in the Project

# Preface

## Project Journey

## Planned Activities

## Action Plan

# Project Management

## Overview

## Governance Structure

## Agile Methodology

## Iteration Flow

## Risk Management

## Change Management Process

## Performance Metrics & Monitoring

## Documentation and Reporting

## Post Implementation Review

## Deliverables

# AS IS

# Business Requirement Document

# Functional Requirement Document

# Non-Functional Requriement Dcoument

# Software Requirement Specification

## 11.1 Architectures

### 11.1.1 System Architecture

### 11.1.2 User Architecture

### 11.1.3 Security Architecture

### 11.1.4 DataBase Architecture

## 11.2 Functional Modules

### 11.2.1 Supplier

The Supplier Module supports power producers (Gencos, Transcos, Traders) in managing their financial transactions with DISCOMs through PRAAPTI.  
Suppliers use the portal for:

* Registration and login
* Profile/PPA management
* Invoice upload, tracking, resubmission
* Responding to disputes
* Updating payments for admitted invoices
* Managing RMS liabilities (registration fee, quarterly usage fee, HDFC payment, Zoho Books invoices/receipts)
* Receiving alerts and maintaining an immutable audit trail.

##### 11.2.1.1 Supplier Registration

**User Story:**As a Supplier, I want to register with all mandatory details (Company, GSTIN, Bank, PPA) so that I can be approved by Admin and start using the portal.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.1.2 Supplier Login

**User Story:**As a Supplier, I want to log in securely so that I can access my dashboard and manage invoices, disputes, and RMS obligations.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.1.3 Profile & PPA Management

**User Story:**As a Supplier, I want to manage my profile and PPAs so that invoices are mapped correctly to DISCOMs.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.1.4 Upload Invoice

**User Story:**As a Supplier, I want to upload invoices (individually or in bulk) so that DISCOMs can admit or raise objections.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.1.5 Handle Returned Invoice

**User Story:**As a Supplier, I want to resubmit or withdraw a returned invoice so that discrepancies flagged by DISCOM can be corrected.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.1.6 Update Payment (Admitted Invoice)

**User Story:**As a Supplier, I want to update payment details for admitted invoices so that the portal reflects an accurate financial status.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.1.7 Dispute Response

**User Story:**As a Supplier, I want to accept or object to disputes raised by DISCOMs so that resolution is recorded properly.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.1.8 RMS – View Fee Liability

**User Story:**As a Supplier, I want to view my RMS fees so that I can understand my obligations and due dates.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.1.9 RMS – Pay Registration Fee

**User Story:**As a Supplier, I want to pay my one-time registration fee securely so that I can activate my account.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.1.10 RMS – Pay Quarterly Usage Fee

**User Story:**As a Supplier, I want to pay quarterly usage fees so that my access to PRAAPTI is not suspended.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.1.11 Download Tax Invoices/Receipts

**User Story:**As a Supplier, I want to download RMS tax invoices and receipts so that I can maintain statutory records.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.1.12 Notifications & Audit

**User Story:**As a Supplier, I want to receive timely notifications and know that all my actions are logged so that I am compliant and informed.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

### 11.2.2 DISCOM

The DISCOM module enables utilities to:

* Register and onboard into PRAAPTI with nodal officer authorization.
* View, admit, or return invoices submitted by Suppliers.
* Raise disputes against invoices with mandatory documents (Brief Note, Stay Order, Competent Authority approval).
* Update payments for admitted invoices and track outstanding dues.
* Access dashboards, overdue summaries, and dispute reports.  
  This ensures compliance with **LPS Rules, 2022** and provides a transparent workflow for supplier-discom interactions.

##### 11.2.2.1 DISCOM Registration

**User Story:**As a DISCOM, I want to register and provide an authorization letter so that my account can be approved for operations on PRAAPTI.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.2.2 View Supplier Invoice

**User Story:**As a DISCOM, I want to view all invoices submitted by suppliers so that I can admit, return, or dispute them.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.2.3 Admit Invoice

**User Story:**As a DISCOM, I want to admit supplier invoices so that payments can be updated in the system.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.2.4 Return Invoice

**User Story:**As a DISCOM, I want to return incorrect invoices with remarks so that suppliers can make corrections.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.2.5 Raise Dispute

**User Story:**As a DISCOM, I want to raise disputes against invoices with documentary proof so that unresolved issues are formally recorded.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.2.6 Update Payment

**User Story:**As a DISCOM, I want to update payments for admitted invoices so that suppliers receive confirmation and records remain accurate.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.2.7 Generate Reports (Dispute/Payment/Overdues)

**User Story:**As a DISCOM, I want to generate reports on disputes, payments, and overdue invoices so that I can monitor compliance and performance.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.2.8 Cross-Cutting Rules (DISCOM)

* **Mandatory Documentation**: Disputes require Brief Note, Stay Order, and Competent Authority approval.
* **Audit Trail**: All admits/returns/disputes/payments logged immutably.
* **Notifications**: Suppliers auto-notified of every DISCOM action (admit, return, dispute, payment update).
* **Role Restriction**: Only nodal officers/authorized representatives can submit disputes or payments.

### 11.2.3 Admin

The Admin Module is central to maintaining governance and transparency in PRAAPTI. It provides multi-admin support with role-based access control (RBAC) for Super Admin, Operations Admin, Finance/RMS Admin, and Helpdesk roles.

Key responsibilities:

* Approve/reject Supplier and DISCOM registrations
* Manage user profiles and PPA linkages
* Moderate and oversee disputes between Suppliers and DISCOMs
* Manage RMS slabs, invoices, payments, and deactivations
* Monitor dashboards, reports, and overdue analytics
* Configure security, audit logs, and notifications

##### 11.2.3.1 Approve Supplier Registration

**User Story:**As an Admin, I want to verify supplier details and documents so that only valid suppliers are onboarded.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.3.2 Approve DISCOM Registration

**User Story:**As an Admin, I want to validate authorization letters and nodal officer credentials so that only legitimate DISCOMs access the portal.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.3.3 Manage Users & Roles (RBAC)

**User Story:**As an Admin, I want to assign role-based permissions so that users only access features relevant to their function.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.3.4 Dispute Moderation & Oversight

**User Story:**As an Admin, I want to review disputes raised by DISCOMs and supplier responses so that the process remains fair and compliant.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.3.5 Configure RMS Slabs

**User Story:**As a Finance Admin, I want to configure RMS fee slabs (registration and quarterly usage) so that suppliers are charged correctly.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.3.6 Generate RMS Invoices & Monitor Payments

**User Story:**As a Finance Admin, I want to generate RMS invoices and monitor payments so that revenue collection is automated and accurate.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.3.7 View Dashboards & Reports

**User Story:**As an Admin, I want to view consolidated dashboards (invoices, disputes, overdues, RMS revenue) so that I can monitor system-wide compliance.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.3.8 Manage Audit Logs & Notifications

**User Story:**As an Admin, I want to manage audit logs and notification templates so that all actions are tracked and users are alerted correctly.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.3.9 Cross-Cutting Business Rules (Admin)

* **RBAC Enforcement:** Each Admin role (Ops, Finance, Helpdesk) limited to defined scope.
* **Auditability:** All admin approvals, RMS edits, and dispute moderation are logged immutably.
* **Compliance:** Invoice/receipt numbering aligned with PFCCL commercial guidelines.
* **Notifications:** Auto-mailers at each Supplier/DISCOM/Admin action.
* **Security:** Admin logins follow enhanced password/MFA rules; periodic VAPT audits.

### 11.2.4 RMS Module (Revenue Management System)

The RMS module handles the billing, payment, and revenue collection related to Supplier registration fees and quarterly usage fees. This includes:

* **Fee Calculation:** Suppliers are charged based on annual turnover (registration) and invoice volume (quarterly usage).
* **Payment Processing:** Payments are managed via a payment Gateway for secure online transactions.
* **Tax Invoices/Receipts:** Generated automatically through the record book and accessible by Suppliers.
* **Penalty Handling:** Delayed payments result in penalties and potential suspension.
* **Deactivation:** Suppliers not paying their fees on time (45-day overdue) will be deactivated.

The module ensures that RMS compliance is tracked, and that Suppliers are charged appropriately for using PRAAPTI services.

##### 11.2.4.1 RMS Registration Fee Calculation

**User Story:**As a Supplier, I want to know my registration fee based on my annual turnover so that I can plan payments effectively.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.4.2 Quarterly Usage Fee Calculation

**User Story:**As a Supplier, I want to know my quarterly usage fee based on my invoice volume so that I can ensure timely payments.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.4.3 Payment of Registration Fee

**User Story:**As a Supplier, I want to pay my registration fee securely through the Payment Gateway so that I can complete my registration and access PRAAPTI.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.4.4 Payment of Quarterly Usage Fee

**User Story:**As a Supplier, I want to pay my quarterly usage fee via HDFC so that my payment is recorded against my usage invoices.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.4.5 Generate Tax Invoices & Receipts (Record Books)

**User Story:**As a Supplier, I want to download tax invoices and receipts for my payments so that I can maintain accurate financial records.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.4.6 Monitor Quarterly Usage Payment Overdue

**User Story:**As a Finance Admin, I want to track overdue quarterly payments so that I can apply penalties or deactivate non-compliant suppliers.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.4.7 View & Export RMS Reports

**User Story:**As a Finance Admin, I want to generate and export RMS reports so that I can review fee collection, overdue payments, and penalties.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.4.8 Cross-Cutting Business Rules (RMS).

* **Fee Calculation**: RMS fees must be recalculated annually based on changes in turnover or supplier invoice volume.
* **Payment Verification**: Payment receipt must match invoice amount to prevent discrepancies.
* **Deactivation**: Automated deactivation for suppliers who fail to pay fees (registration/usage) within 45 days.
* **Audit Trail**: All payment-related actions, fee calculations, and invoice statuses must be logged immutably.
* **Email & SMS Alerts**: Suppliers must be notified of payment due dates, overdue status, penalty applications, and deactivation

### 11.2.5 Web Portal Landing Page

The Web Portal Landing Page serves as the **public-facing interface** for PRAAPTI, providing users with access to key **information and resources** related to the portal. This includes:

* **Heat map** displaying overdue payments by DISCOMs and suppliers, categorized by region and status.
* **Registration Links** for **Suppliers (Genco, Transco, Traders)** and **DISCOMs.**
* **News/Updates Section** for PRAAPTI-specific announcements, regulatory updates, and ongoing events.
* **Help & Support** section for FAQs, contact details, and troubleshooting guides.
* **Key Performance Indicators (KPIs)** such as **dispute counts**, **payment status**, and **RMS fee liabilities.**

The Landing Page serves as the initial point of entry for users, providing **user-friendly navigation** and basic **transactional capabilities** like registration and status tracking.

##### 11.2.5.1 View Overdue Payments Heat Map

**User Story:**As a Visitor, I want to see a real-time heat map displaying overdue payments by region so that I can understand the status of payment delays across the country.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.5.2 Register Supplier / DISCOM

**User Story:**As a new Supplier/DISCOM, I want to register on the PRAAPTI portal so that I can submit invoices, manage disputes, and track payments.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.5.3 View Regulatory News & Updates

**User Story:**As a User/Visitor, I want to see updates about PRAAPTI-related news and regulatory changes so that I stay informed about important developments.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.5.4 View Help & Support

**User Story:**As a **User**, I want to access help documentation or contact support so that I can resolve any issues or get assistance with using PRAAPTI.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.5.5 View KPIs and Reports

**User Story:**As a **Public Visitor or Registered User**, I want to view **key performance indicators (KPIs)** such as overdue amounts, disputes, and RMS fees so that I can understand the status of PRAAPTI in real time.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.5.6 Cross-Cutting Business Rules (Web Portal)

**Public Access**:

* **Public Landing Page** visible to everyone; no login required for news, help, or KPIs
* **Registration** requires login; only verified users can submit invoices or manage disputes

**User Notifications**:

* All notifications (dispute, invoice status, registration status) **must** be sent via email and reflected on the **user dashboard**

**Real-Time Updates**:

* Overdue heat map, KPIs, and reports should update in **real-time** when new data is available.

**Data Privacy**:

* No sensitive data (invoice details, personal information) is shown on the public-facing landing page. Only general statistics (overdue amounts) and public news are visible

### 11.2.6 Mobile App Module

The Mobile App Module is designed for view-only access across all user types (Suppliers, DISCOMs, and Admins). Users will be able to view dashboards, track invoices, dispute statuses, and RMS fee liabilities, but will not have the ability to submit invoices, approve/reject disputes, or perform any active changes to data. The app aims to provide users with real-time information at their fingertips, ensuring transparency and accessibility.

Key functionalities:

* **Supplier/DISCOM View:** View invoices, payments, disputes, and KPIs (without interaction capabilities).
* **Admin View:** View system-wide KPIs, disputes, overdue payments, and revenue.
* **Data Syncing:** Real-time syncing for up-to-date information (with offline capabilities for data viewing).
* **Security:** Secure authentication, data encryption, and session management

##### 11.2.6.1 Supplier Login & View Dashboard (Mobile)

**User Story:**As a Supplier, I want to securely log into the PRAAPTI mobile app to view my dashboard and track invoices, disputes, and payments without submitting any data.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.6.2 View Invoice Status (Mobile)

**User Story:**As a Supplier, I want to view the status of my invoices (submitted, admitted, or returned) so that I can monitor my pending payments and actions.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.6.3 View Dispute Status (Mobile)

**User Story:**As a Supplier, I want to track the status of my disputed invoices so that I can see if any progress has been made in their resolution.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.6.4 View Payment Status (Mobile)

**User Story:**As a Supplier, I want to view my payment status for admitted invoices so that I can keep track of received and outstanding payments.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.6.5 View RMS Fee Liability (Mobile)

**User Story:**As a Supplier, I want to view my RMS registration and quarterly usage fees so that I am aware of my upcoming financial obligations.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.6.6 Admin View-Only Dashboard (Mobile)

**User Story:**As an Admin, I want to view key performance indicators (KPIs) like overdue payments, dispute statuses, and RMS payments on my mobile app so that I can monitor system activities in real-time.

**User Flow:** (Diagram)

**Use Case:**

|  |  |
| --- | --- |
| **Use Case Name** |  |
| **Description** |  |
| **Primary Actor** |  |
| **Trigger** |  |
| **Pre-Condition** |  |
| **Post-Condition** |  |
| **Basic Flow** |  |
| **Alternative Flow** |  |
| **Exception Flow** |  |
| **Business Rule** |  |
| **Assumptions** |  |
| **Other Information** |  |

**Wireframe:**

**Information Architecture:**

##### 11.2.6.7 Cross-Cutting Business Rules (Mobile App)

**Authentication**:

* All users must authenticate using their **username/password**, and **MFA** is enabled for enhanced security

**Push Notifications**:

* Enabled for all users (Supplier, DISCOM, Admin) to receive **real-time updates** on invoice submissions, disputes, payments, and fee liabilities

**Role-Based Data Access**:

* **Suppliers and DISCOMs** can only **view** their respective data (invoices, disputes, payments).
* **Admins** have **view-only access** for the entire system with **no edit rights**

**Offline Functionality**:

* Basic data (invoice status, disputes, payments) can be viewed offline; **data submission** requires an active internet connection

**Data Syncing**:

* The app syncs every **30 minutes** to ensure that all displayed data is current

### 

# Annenxures

# Glossary