Meter Reading Application (MRA) – Documentation Portal / Knowledge Base

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1. Overview

The MRA Documentation Portal and Knowledge Base is a centralized digital library that provides in-depth technical resources, user guides, operational manuals, and integration documentation to assist end-users, system administrators, field agents, and developers. It plays a crucial role in supporting adoption, training, troubleshooting, and long-term system maintenance.

This portal is designed to reduce onboarding time, ensure proper use of features, and facilitate seamless communication between support teams and end-users.

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2. Sections of the Documentation Portal

2.1. Mobile App User Guide

- **Installation** (APK distribution, Play Store access, version compatibility)

- **Login System** (Bearer token authentication, session timeout rules)

- **Meter Reading Entry**

    - Manual input

    - OCR-based real-time detection

    - Offline mode handling and syncing logic

- **Spot Billing**

    - Bill generation format

- o Print preview and reprint options
- o Supported printer types

- **Error Alerts & Resolution Prompts**

2.2. Admin Portal Documentation

- **Dashboard Overview** (Reading status, performance summaries)

- **User & Role Management**

  - o Admin, Vendor, Supervisor roles

  - o Permission hierarchy

- **Route Management**

  - o Route creation

  - o Daily/weekly assignments

  - o History logs

- **Reports & Analytics**

  - o Export to Excel/PDF

  - o Filtered data views

  - o Comparative performance dashboards

2.3. Vendor Portal Documentation

- **Vendor Login & Interface Overview**

- **Reading Uploads**

  - o Daily assignment interface

  - o Submission validation

- **Performance Metrics**

  - o Timely submission stats

  - o Accuracy tracking

- **Discrepancy Reporting**

2.4. API Integration Guide

- **Authentication Mechanisms**
  - Bearer token (mobile app)
  - Basic Auth (SAP)
  - CSRF Token usage (SAP)
- **List of Available Endpoints**
  - Meter List API
  - Meter Submission API
  - Spot Billing API
- **Sample Payloads and Responses**
- **Error Codes and Retry Logic**

2.5. SAP OData Integration

- **Service Endpoints**
  - GetMeterReaddSet
  - ZstOdataSpotSet
- **Parameter Filters**
  - Adatsoll, Termschl, Accountnumber
- **Security Considerations**
  - Secure endpoint handling
  - Basic authentication roles

2.6. OCR & Real-Time Image Processing

- **OCR Engine Overview**
  - Custom implementation (non-Google ML Kit)

- o Preprocessing for accuracy

- **Supported Number Formats**

- **Best Practices for Lighting & Positioning**

- **OCR Error Handling & Manual Override**

2.7. Printing & Hardware Integration

- **Supported Printers**

  - o Bluetooth thermal printers

  - o Wireless printing setups

- **Bill Template Format**

- **Troubleshooting Common Issues**

  - o Pairing issues

  - o Printer not responding

  - o Misaligned bill layout

2.8. Troubleshooting & FAQs

- **App Crashes or Freezes**

- **Meter Not Found Issues**

- **Readings Not Submitting**

- **Admin Access Problems**

- **SAP Integration Errors**

- **Real-time fixes for OCR misreads**

2.9. Release Notes & Changelog

- Detailed version history with:

  - o Feature additions

  - o Bug fixes

- o   Backend updates

- o   UI/UX improvements

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3. Platform Details and Access

- **Portal Hosting**: Hosted securely under Brontobyte Technologies' domain.

- **Access Structure**:

  - o   Public: General FAQs, Mobile App User Guide

  - o   Role-Based: Admins, Vendors, IT Support

- **Offline Access**:

  - o   Each guide and manual will have a downloadable PDF version.

  - o   App help section will contain offline-friendly FAQs.

- **Search Functionality**: Advanced keyword search across modules.

- **Content Update Frequency**: Bi-weekly or on-demand based on product releases.

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4. Contribution, Feedback & Support

- **Feedback Channel**:

  - o   Embedded feedback forms within the portal

  - o   Email-based support ticketing system

- **Content Updates**:

  - o   Users can request content updates or new guide creation.

- A documentation manager reviews and publishes revisions.

- **Support Coverage**:

  - 9 AM to 7 PM IST (Monday to Saturday)

  - Extended hours during release cycles

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5. Contact Information

- **Website**: https://brontobytetechnologies.com

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For additional assistance or to request access to the documentation portal, please reach out via the contact channels mentioned above.