

## **Business Requirements Document (BRD)**

### **Web-Based Motor Insurance Application & Certificate Issuance Platform**

#### **1. Introduction**

##### **1.1 Purpose**

This document defines the business requirements for the development of a **web-based motor insurance application platform** that enables customers and agents to apply for, pay for, and receive **motor insurance certificates digitally**, including both **annual** and **monthly (1-month)** covers.

##### **1.2 Business Need**

The business requires a centralized digital platform to:

- Simplify motor insurance onboarding
- Automate premium computation and payments
- Enable real-time insurance certificate issuance
- Improve customer engagement and renewal management
- Support regulatory and insurer integrations
- Automate Issuance of Valuation letter on renewal – 1 month prior to expiry.

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#### **2. Objectives**

- Provide an end-to-end online motor insurance application journey
- Enable real-time premium calculation based on vehicle and policy attributes
- Support secure document uploads and data capture
- Integrate with M-Pesa for premium payments
- Support both annual and monthly insurance cover models
- Enable real-time certificate issuance via insurer and DMVIC systems
- Provide reporting, notifications, and renewal engagement tools

### **3. Scope**

#### **3.1 In Scope**

- Motor insurance quotation and proposal submission
- Premium and levy computation
- Document uploads and validation
- Customer and vehicle data capture
- Payment processing and reconciliation
- Insurance certificate issuance
- Notifications and engagement
- Reporting and data exports
- Integration with insurers and third-party systems

#### **3.2 Out of Scope**

- Claims processing
  - Offline/manual certificate issuance
  - Non-motor insurance products
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### **4. User Roles**

- Retail Customer
  - Insurance Agent / Broker
  - System Administrator
  - Insurance Company Systems
  - DMVIC / Certification Authority
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### **5. Functional Requirements**

#### **5.1 Insurance Proposal & Premium Computation**

The platform shall allow users to initiate a motor insurance application by filling a **Proposal Form** capturing:

- Vehicle value
- Vehicle model
- Year of manufacture
- Insurance start date

The system shall:

- Fetch applicable rates from the backend rating engine
- Compute the premium dynamically based on:
  - Vehicle value
  - Age of vehicle
  - Risk factors
  - Insurance cover type
- Display the computed premium to the user

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## 5.2 Levies & Certificate Charges

After premium computation:

- The system shall calculate applicable statutory levies for an **annual insurance certificate**
- Display a breakdown of:
  - Base premium
  - Levies
  - Total payable amount

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## 5.3 Document Upload Requirements

The platform shall require upload of the following mandatory documents:

- Vehicle logbook
- KRA PIN certificate of the owner
- National Identification document
- Vehicle valuation report

The system shall validate:

- Mandatory document presence
  - Supported file formats
  - File size limits
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## 5.4 Vehicle & Owner Information Capture

The platform shall capture and store:

### Vehicle Details

- Vehicle value
- Make and model
- Engine capacity (CC)
- Chassis number
- Engine number

### Owner Details

- Full name of the owner
  - At least **two (2) mobile phone numbers**
  - Email address (mandatory and accessible for issuance of insurance e-sticker and certificates)
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## 5.5 Insurance Company & Agent Selection

The platform shall:

- Display a list of participating insurance companies
  - Allow selection of the insurance company offering the service
  - Capture:
    - Agent code for commission mapping, **or**
    - Display the agent supporting the business for the transaction
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## 5.6 Payment Processing (M-Pesa STK Push)

The platform shall:

- Initiate **M-Pesa STK Push** for premium payment
  - Allow capture of payment details or M-Pesa reference numbers
  - Support **up to four (4) payment entries** where:
    - Premium amounts are up to **KES 1,000,000**
  - Track partial and full payments until the required premium is settled
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## 5.7 Data Persistence & Receipting

Upon confirmation of payment:

- The system shall persist all application and payment data to the database
  - Generate and store a premium payment receipt
  - Update the application status to **Paid / Ready for Certification**
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## 5.8 Insurance Certificate Issuance

The platform shall:

- Send insurance requests to **DMVIC** for certificate issuance
  - Support issuance of:
    - Annual motor insurance certificates
    - One (1) month motor insurance certificates
  - Send the issued insurance certificate to the applicant's email address
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## 5.9 Monthly (1-Month) Cover Rules

Where a **1-month cover** is selected:

- The system shall charge **35% of the annual premium** for each 1-month certificate
- Allow issuance for:
  - Month 1
  - Month 2
- Lock issuance for Month 3 until:
  - The client pays the full remaining premium balance
- On Month 3:
  - Issue a certificate completing the policy period
- The policy maturity date shall be:

- **One (1) day before the anniversary of the original insurance start date**
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## 5.10 Notifications & Customer Engagement

The platform shall include an engagement module to send **SMS and Email notifications**:

- 1 month before insurance expiry
- 2 weeks before expiry
- 3 days before expiry

Additionally:

- The system shall send a **Vehicle Valuation Reminder Letter** via email **1 month before renewal or expiry**
  - The platform shall explore and support **WhatsApp notification integration** for valuation reminders and renewal alerts
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## 5.11 Reporting & Data Export

The platform shall provide reports that:

- Display all insurance covers placed within specific date ranges
  - Include:
    - Owner details
    - Vehicle details
    - Vehicle value
    - Premiums paid (year-on-year)
    - Policy start date and expiry date
  - Include all data captured during certificate generation
  - Allow export in **CSV format**
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## 5.12 System Integrations

The platform shall support:

- Integration with all participating insurance company systems
  - Real-time processing of insurance certificates for retail clients
  - Secure API-based integrations with:
    - Insurance companies
    - Payment providers
    - DMVIC systems
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## **6. Non-Functional Requirements**

- Secure authentication and role-based access control
  - Encryption of data in transit and at rest
  - High availability and scalability
  - Audit logs for payments, certificate issuance, and changes
  - Compliance with data protection and insurance regulatory requirements
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## **7. Assumptions & Dependencies**

- Insurance companies provide real-time APIs for certificate issuance
  - DMVIC system is accessible and supports digital integrations
  - M-Pesa APIs are available and stable
  - Regulatory approvals for digital motor insurance certificates are in place
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## **8. Success Criteria**

- Fully digital end-to-end motor insurance application process
- Accurate premium computation and payment reconciliation
- Timely certificate issuance and delivery
- Improved customer retention through proactive renewal reminders
- Comprehensive reporting and auditability