

# Software Requirements Specification (SRS)

## Project Title: Bima Sathi

Version: 1.0

Purpose: To define complete functional and technical requirements for the Bima Sathi insurance platform.

## 1. Introduction

### 1.1 Purpose of the Document

This Software Requirements Specification (SRS) document provides a detailed description of the requirements for the **Bima Sathi** system. It is intended for software developers, system architects, testers, project managers, insurance partners, and government stakeholders.

### 1.2 Scope of the System

Bima Sathi is a **digital insurance marketplace platform** designed to help Nepali citizens discover, compare, purchase, and manage insurance policies while enabling insurance providers to digitally distribute their products.

The system will include:

- Web Application
- Mobile Application (Android & iOS)
- Admin Management Panel

### 1.3 Definitions & Acronyms

- **KYC:** Know Your Customer
- **API:** Application Programming Interface
- **RBAC:** Role-Based Access Control
- **OTP:** One-Time Password
- **MVP:** Minimum Viable Product

## 2. Overall Description

### 2.1 Product Perspective

Bima Sathi will operate as a centralized platform integrating:

- Customers
- Insurance Providers
- Government / Regulatory Oversight (via Admin)

The system will interact with external payment gateways and communication services.

### 2.2 User Classes

#### 1. Customer (Policy Buyer)

2. Insurance Provider (Company User)
3. Administrator (Platform Owner)

## 2.3 Operating Environment

- Web browsers (Chrome, Firefox, Edge)
- Android & iOS mobile devices
- Cloud-hosted backend infrastructure

## 2.4 Design Constraints

- Compliance with Insurance Board of Nepal regulations
- Secure handling of financial & personal data
- Integration with Nepali payment gateways

# 3. System Features & Functional Requirements

## 3.1 User Authentication Module

**Description:** Allows secure access to the platform.

**Functional Requirements:**

- User registration using phone/email
- OTP verification
- Secure login/logout
- Password reset
- Role-based access

## 3.2 Customer Module

### 3.2.1 Insurance Discovery

- View insurance categories (Life, Health, Vehicle, Travel)
- Search policies
- Filter by premium, coverage, provider, duration
- Compare multiple policies

### 3.2.2 Policy Purchase

- Select insurance policy
- Enter personal & nominee details
- Upload KYC documents
- Online payment processing
- Policy confirmation & digital receipt

### 3.2.3 Policy Management

- View active & expired policies
- Download policy documents
- Renewal reminders

### **3.2.4 Claims Management**

- Submit claim requests
- Upload supporting documents
- Track claim status
- Receive claim notifications

## **3.3 Insurance Provider Module**

### **3.3.1 Provider Profile Management**

- Company registration
- KYC submission
- Profile updates

### **3.3.2 Policy Management**

- Create, update, deactivate policies
- Define policy parameters
- View customer purchases

### **3.3.3 Claims Handling**

- View incoming claims
- Update claim status
- Communicate with customers

## **3.4 Admin Module**

### **3.4.1 Admin Dashboard**

- User statistics
- Policy statistics
- Transaction overview

### **3.4.2 Approval & Moderation**

- Approve insurance providers
- Approve policies
- Verify KYC documents

### **3.4.3 System Management**

- User management
- Provider management
- Policy control
- Report generation

## **4. External Interface Requirements**

### **4.1 User Interfaces**

- Responsive web UI
- Mobile-friendly design
- Simple Nepali-English UI (future multilingual support)

## 4.2 Hardware Interfaces

- Mobile devices
- Server infrastructure

## 4.3 Software Interfaces

- Payment Gateways (eSewa, Khalti)
- SMS Gateway
- Email Services

# 5. Non-Functional Requirements

## 5.1 Performance Requirements

- Fast policy search
- Scalable backend
- Support for concurrent users

## 5.2 Security Requirements

- SSL encryption
- Secure authentication
- Encrypted password storage
- Role-based authorization

## 5.3 Reliability & Availability

- 99% uptime target
- Data backup & recovery

## 5.4 Compliance

- Insurance regulatory compliance
- Data privacy protection

# 6. Data Requirements

## 6.1 Core Entities

- User
- Insurance Provider
- Policy
- Policy Purchase
- Payment
- Claim

- Notification

## 6.2 Data Storage

- Centralized database
- Secure document storage

## 7. System Architecture (High Level)

- Frontend (Web & Mobile)
- Backend API
- Database Server
- Payment & Notification Services

## 8. Assumptions & Dependencies

- Insurance providers will supply accurate policy data
- Payment gateways will be available and reliable
- Regulatory approval will be obtained

## 9. Future Enhancements

- AI-based insurance recommendations
- Chatbot support
- Multi-language support
- Integration with government insurance systems

## 10. Acceptance Criteria

- All core modules function as specified
- Secure payment processing
- Accurate policy comparison
- Successful claim submission & tracking

## 11. Appendix

This SRS document serves as the baseline reference for system design, development, testing, and cost estimation for the **Bima Sathi** platform.

**BIMA SATHI**

**Technical Requirement & Scope Document**

*(For Budget & Timeline Estimation)*

# 1. Project Overview

**Project Name:** Bima Sathi

**Project Type:** Insurance Finder & Digital Marketplace

**Platforms Required:**

- Web Application
- Mobile Application (Android & iOS)
- Admin Panel (Web-based)

**Target Users:**

- Customers (Insurance buyers)
- Insurance Providers
- Admin (Platform owner)

## 2. System Architecture (High Level)

### Frontend

- Web App (Customer + Admin)
- Mobile App (Customer)

### Backend

- Centralized REST API / GraphQL API
- Business logic
- Authentication & authorization
- Payment processing
- Notification handling

### Database

- Centralized database for users, policies, transactions, claims

### Integrations

- Payment Gateways
- SMS / Email services
- File storage (documents)

### **3. Recommended Tech Stack (Flexible)**

#### **Frontend**

- Web: React.js / Next.js
- Mobile: Flutter (Android & iOS single codebase)

#### **Backend**

- Node.js + Express OR Django REST Framework
- JWT-based authentication

#### **Database**

- PostgreSQL (preferred) OR MongoDB

#### **Hosting / Cloud**

- AWS / Firebase / DigitalOcean
- Cloud storage for documents (S3 / Firebase Storage)

#### **Payments**

- eSewa
- Khalti
- (Optional: Stripe for future)

### **4. User Roles & Permissions**

#### **4.1 Customer**

- Register/Login
- View/search/compare policies
- Buy policies
- Upload KYC & claim documents
- Track claims

- Receive notifications

## 4.2 Insurance Provider

- Manage company profile
- Create/update policies
- View leads & sales
- Update claim status

## 4.3 Admin

- Approve providers
- Approve policies
- Manage users
- Monitor transactions
- Generate reports

# 5. Functional Requirements (Detailed)

## 5.1 Authentication & User Management

- Email/phone-based registration
- OTP verification
- Secure login/logout
- Password reset
- Role-based access control (RBAC)

## 5.2 Customer Module

### Insurance Discovery

- Insurance categories:

- Health
- Life
- Vehicle
- Travel

- Search & filter:

- Premium range
- Coverage amount
- Policy duration
- Provider

- Policy comparison (side-by-side)

## Policy Purchase

- Policy selection
- Checkout page
- Payment gateway integration
- Payment success/failure handling
- Policy confirmation
- PDF generation & storage

## Policy Management

- View active policies
- Policy history
- Download documents
- Renewal reminder logic

## Claims Module

- Claim request form
- File upload (documents/images)
- Claim status tracking

- Notifications on updates

## 5.3 Insurance Provider Module

### Policy Management

- Add/edit/delete policies

- Policy attributes:

- Name
- Category
- Premium
- Coverage
- Terms
- Add-ons

- Activate/deactivate policy

### Dashboard

- Views per policy
- Purchases
- Leads generated
- Claim requests list

## 5.4 Admin Panel

### Admin Dashboard

- Total users
- Total policies
- Total transactions
- Revenue overview

### Approval Workflows

- Provider approval

- Policy approval
- KYC verification (manual)

## Management

- User management
- Provider management
- Policy moderation
- Transaction monitoring

## Reports

- Sales reports (daily/monthly)
- Commission reports
- Provider performance

# 6. Non-Functional Requirements

## Security

- HTTPS / SSL
- Encrypted passwords
- Secure payment handling
- Data access restrictions
- Audit logs (basic)

## Performance

- Fast policy search
- Scalable backend
- Optimized API responses

## Compliance

- Insurance Board of Nepal guidelines
- KYC / AML support

- Data privacy compliance

## 7. Notifications System

- Email notifications
- SMS notifications
- In-app notifications

### Trigger events:

- Registration
- Policy purchase
- Payment confirmation
- Renewal reminder
- Claim updates

## 8. Data Models (High-Level)

### Core Entities

- User
- Provider
- Policy
- PolicyPurchase
- Payment
- Claim
- Notification
- Document

*(Developers to design DB schema based on these)*

## 9. APIs Required

- Auth APIs
- Policy listing & search APIs
- Policy comparison API
- Payment processing APIs
- Claim management APIs
- Admin control APIs

## 10. Development Phases (Suggested)

### Phase 1 – MVP

- User registration/login
- Policy listing & comparison
- Policy purchase
- Admin panel (basic)
- Payment integration

### Phase 2

- Claims module
- Notifications
- Provider dashboards
- Reports & analytics

### Phase 3

- AI recommendations
- Chatbot
- Multi-language support

## 11. Deliverables Expected from IT Company

- Source code (frontend + backend)

- Database schema
- API documentation
- Deployment setup
- Basic technical documentation
- Estimated timeline (weeks/months)
- Cost breakdown (feature-wise)

## 12. Estimation Request (What You Ask Developers)

Please provide:

1. Total estimated cost
2. Development timeline
3. Team size required
4. Post-launch support cost
5. Technology choices & justification

## 13. Optional Add-ons (Cost Separately)

- UI/UX design
- Logo & branding
- Maintenance contract
- Cloud cost estimation

## 14. Conclusion

This document defines the **functional and technical scope** of **Bima Sathi** to help IT vendors accurately estimate **budget, timeline, and resources** required to build the system.

# PROJECT PROPOSAL

**BIMA SATHI – Digital Insurance Finder & Marketplace Platform**

# 1. Introduction

Insurance plays a critical role in financial security and risk management. However, in Nepal, insurance adoption remains limited due to lack of awareness, fragmented information, and dependency on physical agents.

**Bima Sathi** is proposed as a **digital insurance finder and marketplace platform** designed to make insurance simple, transparent, and accessible for citizens across Nepal. The platform aims to support government initiatives for digital transformation, financial inclusion, and insurance penetration.

## 2. Project Overview

**Project Name:** Bima Sathi

**Nature:** Digital Insurance Finder & Marketplace

**Target Area:** Nepal (nationwide)

**Platform:** Web + Mobile Application (Android & iOS)

Bima Sathi allows users to:

- Search and compare insurance policies from multiple providers
- Purchase insurance policies online
- Receive digital policy documents
- Get renewal reminders and claim assistance

## 3. Problem Statement

- Lack of a centralized platform to compare insurance policies
- Limited public awareness about insurance products
- Time-consuming manual processes and paperwork
- Overdependence on physical agents
- Limited digital reach for insurance companies

## 4. Objectives of the Project

- Increase insurance awareness and accessibility in Nepal
- Provide a transparent platform for policy comparison
- Support insurance companies with digital distribution

- Reduce paperwork through digital policy management
- Align with government goals of digital governance and fintech growth

## 5. Proposed Solution – Bima Sathi

Bima Sathi will act as a **bridge between citizens, insurance providers, and regulators** by offering:

- Centralized insurance marketplace
- Secure digital payments
- Paperless policy documentation
- Claim guidance and tracking
- Data-driven insights for policymakers and insurers

## 6. Key Features

### For Citizens

- Online insurance comparison and purchase
- Digital payments and instant documentation
- Policy renewal reminders
- Claim assistance and support
- Secure user accounts and KYC compliance

### For Insurance Providers

- Digital channel to sell policies
- Access to qualified leads
- Policy analytics and performance insights
- Reduced dependency on manual agents
- Brand visibility and featured listings

### For Government & Regulators

- Increased insurance penetration

- Transparent policy distribution
- Data insights for planning and regulation
- Support for digital Nepal initiatives

## 7. Stakeholder Collaboration Request

### Insurance Providers

We seek:

- Policy data integration
- Partnership for digital distribution
- Commission-based or lead-based collaboration
- Support in claim verification workflows

### Government & Regulatory Bodies

We seek:

- Policy guidance and regulatory support
- Alignment with Insurance Board of Nepal guidelines
- Advisory support for compliance and governance
- Possible recognition as a digital insurance initiative

## 8. Technology & Security

- Secure web and mobile platforms
- Encrypted data storage and communication
- Compliance with data privacy and insurance regulations
- Integration with licensed payment gateways
- Role-based access control for all users

## 9. Expected Benefits

## For Citizens

- Easy access to insurance information
- Time and cost savings
- Increased trust and transparency

## For Insurance Companies

- Expanded digital reach
- Lower customer acquisition costs
- Better analytics and customer insights

## For Government

- Improved insurance coverage nationwide
- Support for digital economy growth
- Better monitoring and policy planning

# 10. Implementation Plan (High-Level)

### Phase Activities

Phase 1 Platform development & pilot launch

Phase 2 Provider onboarding & user awareness

Phase 3 Expansion & feature enhancement

Phase 4 Analytics, AI & nationwide scaling

# 11. Sustainability & Revenue Model

- Commission on policy sales
- Lead generation fees
- Featured policy promotions
- Premium value-added services

The platform is designed to be **self-sustaining and scalable**.

# 12. Conclusion

Bima Sathi aims to become a **trusted digital insurance companion** for the people of Nepal. Through collaboration with insurance providers and government institutions, the platform can significantly improve **insurance accessibility, transparency, and efficiency**.

We respectfully request **partnership, guidance, and support** to successfully implement this initiative for national benefit.