

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.