STAR Community - Product Requirements Document

1. Executive Summary

Product Name: STAR Community App
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1.1 Product Vision

To create a thriving local economy by connecting residents with local service providers through a secure, community-focused digital platform that enables collaborative community initiatives and charitable giving.

1.2 Product Mission

Empower local communities by providing a comprehensive platform that facilitates service discovery, promotes local commerce through a token-based economy, and enables collective community action through collaborative projects and charitable causes.

2. Objectives

2.1 Primary Objectives

- **Economic Empowerment:** Enable small and informal service providers to compete effectively with established businesses
- **Community Connection:** Foster stronger relationships between residents and local service providers
- **Collaborative Impact:** Facilitate community-driven projects and charitable initiatives
- **Digital Inclusion:** Provide accessible tools for users with varying technological literacy levels

2.2 Success Metrics

- **User Adoption:** 1,000+ active residents and 200+ service providers within first 6 months
- **Transaction Volume:** 10,000+ token transactions monthly by month 12
- **Community Engagement:** 50+ active STAR Projects and 25+ STAR Causes within first year
- **User Satisfaction:** 4.5+ star average rating in app stores
- **Economic Impact:** R500,000+ in local economic activity facilitated annually

2.3 Key Performance Indicators (KPIs)

- Monthly Active Users (MAU)

- Service completion rate

- Token redemption rate

- Community project success rate

- User retention rate (monthly and quarterly)

- Agent onboarding success rate

3. Product Features

3.1 Core Features

3.1.1 User Management System

- **Multi-role authentication** (Residents, Service Providers, Agents, Cause Champions)

- **Profile creation and management** with verification layers

- **Identity verification** for service providers

- **Role-based permissions** and access control

3.1.2 Service Discovery & Booking

- **Advanced search functionality** with filters (location, price, rating, availability)

- **Service provider profiles** with portfolios, certifications, and reviews

- **Real-time calendar integration** for booking management

- **Service request system** with competitive bidding

- **In-app secure messaging** between residents and service providers

3.1.3 Token Economy System

- **Digital wallet** for token storage and management

- **Token purchase system** with multiple payment methods

- **Subscription packages** with tiered benefits

- **Dual-value token system** (purchase price vs. redemption value)

- **Automatic token distribution** for community initiatives

3.1.4 Payment & Transaction Management

- **Escrow system** for secure token holding

- **Unique Service ID (SI)** generation and validation

- **Automated payment release** upon service completion

- **Token redemption** to local currency

- **Transaction history** and reporting

3.2 Community Features

3.2.1 STAR Projects

- **Project creation and management** interface
- **Collaborative funding** through token pooling
- **Project progress tracking** with visual indicators
- **Member voting system** for service provider selection
- **Quality assurance workflow** with designated QA members
- **Project communication tools** (chat, announcements, notifications)

3.2.2 STAR Causes

- **Cause application system** with admin approval workflow
- **Cause Champion role** for cause management
- **Token donation functionality** with secure processing
- **Progress reporting** and transparency features
- **Social media sharing** integration
- **Community-wide cause alerts** and notifications

3.3 Rating & Review System

- **Multi-dimensional rating system** (quality, timeliness, communication)
- **Photo/video upload** capability for reviews
- **Review moderation** and fraud detection
- **Aggregate rating calculations** and display
- **Review filtering** and sorting options

3.4 Agent Network Management

- **Agent registration and verification** system
- **Performance tracking dashboard** for agents
- **Commission calculation** and payment automation
- **Marketing material distribution** system
- **Leaderboard and gamification** features

4. User Stories

4.1 Resident User Stories

Epic: Service Discovery & Booking

- As a resident, I want to search for local service providers so that I can find help with my needs

- As a resident, I want to view detailed provider profiles so that I can make informed decisions

- As a resident, I want to book services directly through the app so that I can schedule convenient appointments

- As a resident, I want to communicate securely with service providers so that I can discuss my requirements

Epic: Token Management

- As a resident, I want to purchase tokens easily so that I can pay for services

- As a resident, I want to choose subscription packages so that I can save money on regular token purchases

- As a resident, I want to view my token balance and transaction history so that I can manage my spending

Epic: Community Participation

- As a resident, I want to create STAR Projects so that I can organize community improvements

- As a resident, I want to join existing projects so that I can contribute to community initiatives

- As a resident, I want to donate to STAR Causes so that I can support community members in need

4.2 Service Provider User Stories

Epic: Business Management

- As a service provider, I want to create a comprehensive profile so that I can showcase my skills and experience

- As a service provider, I want to manage my calendar so that I can control my availability

- As a service provider, I want to list my services with clear pricing so that residents understand my offerings

- As a service provider, I want to receive instant notifications for bookings so that I can respond promptly

Epic: Job Management

- As a service provider, I want to view all my scheduled jobs so that I can plan my work

- As a service provider, I want to mark jobs as complete so that I can receive payment

- As a service provider, I want to bid on service requests so that I can expand my business opportunities

Epic: Financial Management

- As a service provider, I want to redeem tokens for cash so that I can access my earnings

- As a service provider, I want to view my earnings history so that I can track my income

4.3 Agent User Stories

Epic: User Onboarding

- As an agent, I want to register new users so that I can earn commissions

- As an agent, I want to track my referrals so that I can monitor my performance

- As agent, I want access to marketing materials so that I can promote the app effectively

Epic: Performance Management

- As an agent, I want to view my commission earnings so that I can track my income

- As an agent, I want to see leaderboards so that I can compare my performance with other agents

4.4 Cause Champion User Stories

Epic: Cause Management

- As a Cause Champion, I want to review cause applications so that I can ensure legitimacy

- As a Cause Champion, I want to create approved causes so that the community can support them

- As a Cause Champion, I want to provide regular updates so that donors can track progress

5. Technical Requirements

5.1 Platform Requirements

5.1.1 Mobile Application

- **Native iOS and Android apps** (minimum iOS 12+, Android 8+)

- **Cross-platform development** using React Native or Flutter

- **Offline functionality** for basic features (profile viewing, transaction history)

- **Push notifications** for bookings, payments, and community updates

5.1.2 Web Application

- **Responsive web app** for desktop and tablet access

- **Progressive Web App (PWA)** capabilities

- **Cross-browser compatibility** (Chrome, Safari, Firefox, Edge)

5.1.3 Backend Infrastructure

- **Cloud-based architecture** (AWS, Google Cloud, or Azure)

- **Microservices architecture** for scalability

- **RESTful API design** with GraphQL consideration for complex queries

- **Real-time communication** using WebSocket or similar technology

5.2 Security Requirements

5.2.1 Data Protection

- **End-to-end encryption** for sensitive communications

- **PCI DSS compliance** for payment processing

- **GDPR/POPIA compliance** for data privacy

- **Multi-factor authentication** for high-value transactions

- **Regular security audits** and penetration testing

5.2.2 Financial Security

- **Secure token storage** with hardware security modules

- **Fraud detection algorithms** for suspicious transactions

- **Audit trails** for all financial transactions

- **Secure API endpoints** with rate limiting and authentication

5.3 Performance Requirements

5.3.1 System Performance

- **Response time:** <2 seconds for standard operations

- **Search results:** <1 second for service provider searches

- **Uptime:** 99.9% availability

- **Concurrent users:** Support for 10,000+ simultaneous users

- **Scalability:** Auto-scaling based on demand

5.3.2 Database Requirements

- **Primary database:** PostgreSQL or MongoDB for main application data

- **Cache layer:** Redis for session management and frequent queries

- **Search engine:** Elasticsearch for advanced search functionality

- **Data backup:** Automated daily backups with point-in-time recovery

5.4 Integration Requirements

5.4.1 Payment Gateways

- **Local payment processors** (PayFast, PayGate for South Africa)

- **Bank integration** for token redemption

- **Mobile money integration** (where applicable)

- **Cryptocurrency support** (future consideration)

5.4.2 Communication Services

- **SMS gateway** for Service ID delivery and notifications

- **Email service** for administrative communications

- **Push notification service** (Firebase Cloud Messaging)

- **Social media APIs** for sharing functionality

5.4.3 Third-party Services

- **Identity verification** services for user validation

- **Geolocation services** for location-based features

- **Analytics platform** (Google Analytics, Mixpanel)

- **Customer support** (Intercom, Zendesk)

5.5 Data Requirements

5.5.1 Data Models

- **User profiles** (residents, service providers, agents)

- **Service listings** with metadata and pricing

- **Transaction records** with audit trails

- **Community projects** and cause data

- **Rating and review data** with moderation flags

5.5.2 Data Analytics

- **User behavior tracking** for product optimization

- **Financial reporting** for token economy monitoring

- **Community impact metrics** for project and cause success

- **Performance dashboards** for stakeholders

6. User Experience Requirements

6.1 Design Principles

- **Accessibility-first design** following WCAG 2.1 guidelines

- **Mobile-first approach** with responsive design

- **Intuitive navigation** suitable for varying digital literacy levels

- **Consistent visual language** across all platforms

- **Multi-language support** (English, Afrikaans, local languages)

6.2 User Interface Requirements

- **Clean, modern design** with high contrast for readability

- **Large touch targets** for mobile accessibility

- **Clear visual hierarchy** with proper typography

- **Loading states and progress indicators** for all operations

- **Error handling** with helpful, non-technical error messages

6.3 User Onboarding

- **Progressive onboarding** with guided tutorials

- **Role-specific onboarding flows** for different user types

- **Help documentation** and FAQ integration

- **Video tutorials** for complex features

- **Agent-assisted onboarding** for users needing additional support

7. Compliance & Legal Requirements

7.1 Data Privacy

- **POPIA compliance** (Protection of Personal Information Act - South Africa)

- **GDPR compliance** for international users

- **Clear privacy policy** and terms of service

- **User consent management** for data collection and processing

- **Right to deletion** and data portability features

7.2 Financial Regulations

- **FinTech compliance** with local financial authorities

- **Anti-money laundering (AML)** procedures

- **Know Your Customer (KYC)** verification processes

- **Tax reporting** capabilities for service providers

- **Consumer protection** measures and dispute resolution

7.3 Platform Liability

- **Terms of service** clearly defining platform responsibilities

- **Service provider verification** and quality standards

- **Insurance considerations** for platform operations

- **Content moderation** policies and procedures

8. Risks & Mitigation Strategies

8.1 Technical Risks

Risk	Impact	Probability	Mitigation Strategy
System scalability issues	High	Medium	Implement cloud-native architecture with auto-scaling; conduct load testing
Security breaches	High	Low	Implement comprehensive security measures; regular audits; incident response plan
Data loss	High	Low	Automated backups; redundant storage; disaster recovery procedures
Third-party service failures	Medium	Medium	Multiple service providers; fallback mechanisms; service monitoring

8.2 Business Risks

Risk	Impact	Probability	Mitigation Strategy
Low user adoption	High	Medium	Comprehensive marketing strategy; agent network; early adopter incentives
Trust and verification issues	High	Medium	Multi-layered verification; transparent review system; dispute resolution
Financial model sustainability	High	Low	Regular financial analysis; diversified revenue streams; cost optimization
Regulatory changes	Medium	Medium	Legal monitoring; compliance framework; adaptable architecture

8.3 Operational Risks

Risk	Impact	Probability	Mitigation Strategy
Dispute management	Medium	High	Clear dispute resolution process; mediation tools; escalation procedures
Quality control	Medium	Medium	Rating system; quality assurance processes; feedback loops
Agent network management	Medium	Medium	Clear guidelines; performance monitoring; training programs
Community project failures	Low	Medium	Project guidelines; milestone tracking; transparent communication

8.4 Market Risks

Risk	Impact	Probability	Mitigation Strategy
Competition from established platforms	High	Medium	Unique value proposition; community focus; local partnerships
Economic downturn affecting local spending	High	Low	Flexible pricing; essential service focus; community support emphasis
Technology adoption barriers	Medium	High	User education; agent support; simplified interface design

9. Success Criteria & Metrics

9.1 Launch Criteria

- **Technical:** All core features functional; security testing complete; performance benchmarks met

- **Business:** Minimum 50 service providers and 200 residents registered; agent network established

- **Legal:** All compliance requirements met; terms of service and privacy policy finalized

9.2 Post-Launch Success Metrics

9.2.1 User Engagement

- Daily/Monthly Active Users (DAU/MAU)

- Average session duration

- Feature adoption rates

- User retention rates (1-month, 3-month, 6-month)

9.2.2 Business Performance

- Transaction volume and value

- Token purchase and redemption rates

- Service completion rates

- Average order value

9.2.3 Community Impact

- Number of active STAR Projects and Causes

- Community project completion rates

- Charitable donations facilitated

- Local economic impact measurement

9.2.4 Platform Health

- Service provider satisfaction scores

- Resident satisfaction scores

- Dispute resolution efficiency

- Platform reliability metrics

10. Implementation Timeline

10.1 Phase 1: Foundation (Months 1-4)

- Core user management system

- Basic service listing and booking

- Token economy implementation

- Mobile app MVP for iOS and Android

10.2 Phase 2: Community Features (Months 5-7)

- STAR Projects functionality

- STAR Causes implementation

- Agent network tools

- Advanced search and filtering

10.3 Phase 3: Enhancement (Months 8-10)

- Web application launch

- Advanced analytics and reporting

- Enhanced communication tools

- Performance optimization

10.4 Phase 4: Scale (Months 11-12)

- Advanced features based on user feedback

- Integration with additional payment methods

- Marketing automation tools

- Preparation for geographic expansion

11. Appendices

11.1 Glossary

- **SP:** Service Provider

- **SI:** Service ID - unique identifier for completed services

- **QA:** Quality Assurance member for community projects

- **Token Cost Price (Rx):** Amount residents pay for one token

- **Token Selling Price (0.9 * Rx):** Value SPs receive when redeeming tokens

11.2 References

- Original STAR Community Proposal Document

- Local regulatory requirements (POPIA, FinTech guidelines)

- Industry best practices for marketplace platforms

- Accessibility guidelines (WCAG 2.1)

Document Approval:

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