**Software Requirements Specification (SRS)**

Member Management System

Version 1.0

# 1. Introduction

This document specifies the functional and non-functional requirements for a Member Management System. The system is responsible for user registration, authentication, profile management, and organizational membership.

# 2. Functional Requirements

# 2.1 Use Case: Register a New Member

Actor: New User

Precondition: The user must have completed a valid secondary verification process.

Main Success Scenario:

1. The user provides their desired account information and proof of verification.

2. The system validates the provided verification proof is correct and current.

3. The system ensures the provided login identifier is not already in use.

4. The system creates a new member account with the provided information.

5. The system protects the user's password by storing it securely.

6. The system assigns the new member to a default organization with a standard role.

7. The system confirms the account has been successfully created.

Alternative Flows:

- Invalid Verification Proof: System rejects registration and notifies user.

- Login Identifier Already Exists: System rejects registration and notifies user.

## 2.2 Use Case: Update Member Profile

Actor: Authenticated Member

Precondition: Member has appropriate permissions to modify their profile.

Main Success Scenario:

1. The member requests to update their profile information.

2. The system verifies the member's permissions.

3. The member submits updated profile data.

4. The system validates the new data.

5. The system updates the member's profile.

6. The system confirms the successful update.

## 2.3 Use Case: Search for Members

Actor: Authorized User

Precondition: User has appropriate search permissions.

Main Success Scenario:

1. The user specifies search criteria for member records.

2. The system verifies the user's search permissions.

3. The system searches member records matching the criteria.

4. The system returns matching results while protecting sensitive data.

5. The system provides pagination support for large result sets.

# 3. Non-Functional Requirements

## 3.1 Security Requirements

- SEC-1: The system shall protect user passwords using industry-standard cryptographic hashing.

- SEC-2: The system shall implement appropriate access controls for all member data.

- SEC-3: The system shall validate all authorization requests before processing.

- SEC-4: The system shall protect sensitive member data from unauthorized access.

## 3.2 Performance Requirements

- PERF-1: The system shall respond to authentication requests within 2 seconds under normal load.

- PERF-2: The system shall support pagination for search results to handle large datasets.

- PERF-3: The system shall cache frequently accessed data to improve performance.

- PERF-4: The system shall support 1,000,000,000 members.

## 3.3 Data Management Requirements

- DATA-1: The system shall ensure unique login identifiers for all members.

- DATA-2: The system shall maintain referential integrity for all member relationships.

- DATA-3: The system shall implement appropriate data retention policies.

## 3.4 Usability Requirements

- USE-1: The system shall provide clear error messages for failed operations.

- USE-2: The system shall provide consistent response formats for all operations.

# 4. Constraints

- CON-1: The system shall support web-based client applications.

- CON-2: The system shall maintain compatibility with existing organizational structures.

- CON-3: The system shall support integration with secondary verification systems.