MOBILE APP ARCHITECTURE SPECIFICATION

Summit Digital Solutions, Inc.

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Classification: Confidential

1. INTRODUCTION

1 This Mobile App Architecture Specification ("Specification") defines the technical architecture, security requirements, and implementation standards for all mobile applications developed by Summit Digital Solutions, Inc. ("Company") as part of the Peak Performance Platform(TM) ecosystem.

2 This Specification is binding upon all Company employees, contractors, and third-party developers engaged in mobile application development activities.

2. DEFINITIONS

1 "Platform" means the Company's proprietary Peak Performance Platform(TM).

2 "Mobile Application" means any software application developed for mobile operating systems that interfaces with the Platform.

3 "Architecture Components" means the structural elements, frameworks, and design patterns specified herein.

3. ARCHITECTURAL FRAMEWORK

1 Core Architecture Requirements

a) All Mobile Applications shall implement a microservices-based architecture utilizing the Company's proprietary SDSConnect(TM) framework.

b) Applications must maintain strict separation between presentation, business logic, and data layers.

c) Implementation shall follow the Model-View-ViewModel (MVVM) design pattern.

2 Technical Stack Requirements

a) Native Development:

- iOS: Swift 5.0 or later
- Android: Kotlin 1.5 or later

b) Cross-Platform Development:

- Flutter 3.0 or later
- React Native 0.70 or later

3 API Integration

a) All API communications must utilize the Company's APIBridge(TM) middleware layer.

b) Implementation of REST APIs must conform to OpenAPI 3.0 specifications.

4. SECURITY REQUIREMENTS

1 Authentication & Authorization

a) OAuth 2.0 implementation with OpenID Connect.

b) Multi-factor authentication integration capability.

c) Biometric authentication support where applicable.

2 Data Security

a) All data at rest must be encrypted using AES-256.

b) Transport layer security using TLS 1.3 or later.

c) Implementation of certificate pinning for all network communications.

5. PERFORMANCE STANDARDS

1 Response Time Requirements

a) Application launch time: 2 seconds

b) Screen transition time: 0.3 seconds

c) API response handling: 1 second

2 Resource Utilization

a) Maximum memory usage: 150MB

b) Maximum storage usage: 100MB

c) Maximum CPU utilization: 15% during normal operation

6. INTEGRATION REQUIREMENTS

1 Platform Integration

a) Mandatory integration with Peak Performance Platform(TM) analytics module.

b) Implementation of SDSMetrics(TM) performance monitoring.

2 Third-Party Integration

a) Approved third-party services must be integrated via Company's SecurityBridge(TM) framework.

b) All external dependencies must be approved by the Security Review Board.

7. TESTING AND QUALITY ASSURANCE

1 Required Testing Protocols

a) Unit testing coverage minimum: 85%

b) Integration testing coverage minimum: 75%

c) UI automation testing coverage minimum: 60%

2 Performance Testing

a) Load testing under simulated user conditions

b) Memory leak detection

c) Battery consumption analysis

8. COMPLIANCE AND CERTIFICATION

1 Regulatory Compliance

a) GDPR compliance requirements

b) CCPA compliance requirements

c) HIPAA compliance where applicable

2 Industry Standards

a) OWASP Mobile Top 10 compliance

b) CWE/SANS Top 25 compliance

9. PROPRIETARY RIGHTS

1 All architectural designs, frameworks, and implementations developed under this Specification remain the exclusive intellectual property of Summit Digital Solutions, Inc.

2 Any modifications to this architecture require written approval from the Chief Technology Officer.

10. DISCLAIMER

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11. EXECUTION

APPROVED AND ADOPTED this 9th day of January, 2024.

SUMMIT DIGITAL SOLUTIONS, INC.

By:

Michael Chang

Chief Technology Officer

By:

James Henderson

Chief Digital Officer