

CLOUD INFRASTRUCTURE TECHNICAL ARCHITECTURE

BLUEPRINT 2024

Summit Digital Solutions, Inc.

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Classification: CONFIDENTIAL

1. DOCUMENT CONTROL

1 This Cloud Infrastructure Technical Architecture Blueprint ("Blueprint") is a controlled document owned and maintained by Summit Digital Solutions, Inc. ("Company"). All rights reserved.

2 Distribution of this document is restricted to authorized personnel under applicable non-disclosure agreements.

2. EXECUTIVE SUMMARY

1 This Blueprint establishes the authorized technical architecture for the Company's cloud infrastructure supporting the Peak Performance Platform and related digital transformation solutions.

2 The architecture described herein has been approved by the Technology Steering Committee on December 12, 2023, and ratified by the Board of Directors on January 8, 2024.

3. INFRASTRUCTURE COMPONENTS

1 ****Core Platform Infrastructure****

- Primary Cloud Provider: Amazon Web Services (AWS)
- Secondary Cloud Provider: Microsoft Azure (Geographic Redundancy)
- Minimum Availability Requirement: 99.99%
- Geographic Distribution: Multi-region deployment across NAM, EMEA, APAC

2 ****Compute Resources****

- Production Environment: AWS EC2 instances (t3.xlarge minimum)
- Development Environment: AWS EC2 instances (t3.large minimum)
- Container Orchestration: Amazon EKS (Kubernetes)

- Serverless Functions: AWS Lambda

3 ****Storage Architecture****

- Primary Data Store: Amazon Aurora PostgreSQL
- Document Storage: Amazon S3 (with versioning)
- Cache Layer: Amazon ElastiCache (Redis)
- Backup Storage: Cross-region S3 replication

4. SECURITY FRAMEWORK

1 ****Access Control****

- Identity Management: AWS IAM with SAML 2.0
- Role-Based Access Control (RBAC)
- Multi-Factor Authentication (MFA) mandatory
- Privileged Access Management (PAM) integration

2 ****Network Security****

- VPC segmentation with private subnets
- AWS Shield Advanced DDoS protection
- AWS WAF implementation
- End-to-end encryption (in-transit and at-rest)

3 ****Compliance Requirements****

- SOC 2 Type II certification maintenance
- ISO 27001 compliance
- GDPR compliance architecture
- HIPAA-ready infrastructure

5. SCALABILITY AND PERFORMANCE

1 ****Auto-scaling Parameters****

- Minimum instances: 4 per region
- Maximum instances: 20 per region
- Scale-out threshold: 70% CPU utilization

- Scale-in threshold: 30% CPU utilization

2 ****Performance Metrics****

- API Response Time: <100ms (95th percentile)
- Database Query Performance: <10ms (95th percentile)
- Maximum Concurrent Users: 10,000 per region
- Data Processing Capacity: 10TB/day

6. DISASTER RECOVERY

1 ****Recovery Objectives****

- Recovery Time Objective (RTO): 4 hours
- Recovery Point Objective (RPO): 15 minutes
- Failover Testing: Quarterly
- Business Continuity Documentation: Monthly review

2 ****Backup Procedures****

- Full backup: Daily
- Incremental backup: Every 6 hours
- Retention period: 90 days
- Backup encryption: AES-256

7. MONITORING AND ALERTING

1 ****Monitoring Systems****

- Primary: AWS CloudWatch
- Secondary: Datadog
- Log Management: ELK Stack
- APM: New Relic

2 ****Alert Thresholds****

- Critical: 2-minute response time
- High: 15-minute response time
- Medium: 1-hour response time

- Low: 24-hour response time

8. COMPLIANCE AND GOVERNANCE

1 This Blueprint shall be reviewed and updated quarterly by the Technology Steering Committee.

2 All deviations from this Blueprint must be documented and approved by the Chief Technology Officer and Chief Information Security Officer.

9. LEGAL DISCLAIMERS

1 This document contains confidential and proprietary information of Summit Digital Solutions, Inc. Unauthorized reproduction or distribution is strictly prohibited.

2 The Company reserves the right to modify this Blueprint at any time without prior notice.

10. EXECUTION

IN WITNESS WHEREOF, the undersigned have executed this Blueprint as of the Effective Date.

SUMMIT DIGITAL SOLUTIONS, INC.

By:

Name: Michael Chang

Title: Chief Technology Officer

Date: January 15, 2024

By:

Name: James Henderson

Title: Chief Digital Officer

Date: January 15, 2024