

# PERFORMANCE TESTING GUIDELINES

**Summit Digital Solutions, Inc.**

*Effective Date: January 15, 2024*

*Document Version: 2.0*

## 1. PURPOSE AND SCOPE

1. These Performance Testing Guidelines ("Guidelines") establish the standard procedures and requirements for conducting performance testing of all digital transformation solutions, including the Peak Performance Platform(TM), developed or implemented by Summit Digital Solutions, Inc. ("Company").
2. These Guidelines apply to all employees, contractors, and third-party vendors involved in the development, testing, or deployment of Company solutions.

## 2. DEFINITIONS

1. "Performance Testing" means the systematic evaluation of system performance metrics, including but not limited to:
  - a) Response time
  - b) Throughput capacity
  - c) Resource utilization
  - d) System stability
  - e) Scalability parameters
2. "Test Environment" refers to the isolated computing infrastructure designated for performance testing that replicates production conditions.
3. "Peak Performance Platform" means the Company's proprietary digital transformation platform, including all associated modules and components.

## 3. TESTING REQUIREMENTS

1. Mandatory Testing Scenarios
  - 1.1. Load Testing: Evaluation of system behavior under expected normal and peak load conditions
  - 1.2. Stress Testing: Assessment of system stability under extreme conditions

1.3. Endurance Testing: Verification of system performance over extended periods

1.4. Spike Testing: Analysis of system response to sudden workload increases

## 2. Performance Metrics

2.1. Transaction response time shall not exceed 2 seconds for 95th percentile

2.2. System throughput must maintain minimum 1000 transactions per second

2.3. CPU utilization shall not exceed 75% under normal load

2.4. Memory utilization shall not exceed 80% under peak load

## 4. TESTING METHODOLOGY

### 1. Pre-Testing Requirements

1.1. Test environment configuration validation

1.2. Test data preparation and validation

1.3. Testing tool calibration and verification

1.4. Baseline performance metrics establishment

### 2. Testing Execution

2.1. Progressive load application according to approved test plans

2.2. Continuous monitoring of system metrics

2.3. Real-time data collection and validation

2.4. Incident logging and resolution tracking

### 3. Post-Testing Analysis

3.1. Performance data analysis and reporting

3.2. Bottleneck identification and documentation

3.3. Optimization recommendations development

3.4. Test results documentation and archival

## 5. DOCUMENTATION AND REPORTING

### 1. Required Documentation

1.1. Test plans with detailed scenarios and success criteria

1.2. Test execution logs and raw performance data

1.3. Analysis reports with findings and recommendations

1.4. Performance optimization proposals

## 2. Reporting Requirements

2.1. Daily testing progress reports during execution

2.2. Incident reports for critical performance issues

2.3. Final test completion report with executive summary

2.4. Quarterly performance trending analysis

## **6. COMPLIANCE AND GOVERNANCE**

1. All performance testing must comply with:

1.1. Company's Information Security Policy

1.2. Data Privacy Requirements

1.3. Industry Standards and Best Practices

1.4. Client-Specific Requirements (where applicable)

2. Testing Governance

2.1. Chief Technology Officer approval required for test plans

2.2. Quality Assurance Director oversight of testing execution

2.3. Regular audits of testing procedures and documentation

2.4. Annual review and update of these Guidelines

## **7. CONFIDENTIALITY AND INTELLECTUAL PROPERTY**

1. All testing data, methodologies, and results are confidential information of the Company.

2. Testing tools, scripts, and methodologies developed during testing are Company intellectual property.

## **8. AMENDMENTS AND UPDATES**

1. These Guidelines may be amended by the Company's Technology Governance Committee with approval from the Chief Technology Officer.

2. All amendments shall be communicated to relevant stakeholders with appropriate notice.

## **9. APPROVAL AND EXECUTION**

APPROVED AND ADOPTED by Summit Digital Solutions, Inc.

**By:**

Michael Chang

Chief Technology Officer

Date: January 15, 2024

**By:**

Dr. Alexandra Reeves

Chief Executive Officer

Date: January 15, 2024