

BigCorp Integration Requirements

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Executive Summary

BigCorp requires an enterprise-grade integration solution for bulk data operations, with specific focus on security, reliability, and performance. This document outlines the business requirements and success criteria for the integration.

Business Goals

1. Enable BigCorp to migrate 10M+ historical records
2. Support ongoing sync of 500k daily transactions
3. Maintain data integrity and audit compliance
4. Achieve sub-15min processing time for standard imports

User Stories

As a BigCorp Data Admin

- I need to bulk import customer records from our legacy CRM
- I want to validate data before committing to import
- I need to track progress of ongoing imports
- I must be able to retry failed records
- I need detailed error reports for failed imports

As a BigCorp Security Officer

- I must ensure all data is encrypted in transit and at rest
- I need comprehensive audit logs of all operations
- I want to rotate security credentials regularly
- I need to restrict access by IP and user role

As a BigCorp Integration Engineer

- I need clear API documentation
- I want to test imports in a staging environment
- I need to handle custom field mappings
- I must maintain backward compatibility

Success Criteria

Performance

- ☐ Process 100k records in under 10 minutes
- ☐ Support 5 concurrent import jobs
- ☐ Achieve 99.9% uptime for API endpoints
- ☐ Handle 1000 API requests per minute

Security

- ☐ SOC 2 Type II compliance
- ☐ End-to-end encryption
- ☐ HMAC authentication
- ☐ Detailed audit logs

Quality

- ☐ Zero data loss guarantee
- ☐ Automated data validation
- ☐ Comprehensive error reporting
- ☐ Rollback capability

Timeline

- Phase 1 (Week 1-2): API Design and Security Review
- Phase 2 (Week 3-4): Implementation and Internal Testing
- Phase 3 (Week 5): BigCorp UAT
- Phase 4 (Week 6): Production Deployment

Risks and Mitigations

Performance Risk

- **Risk:** Processing time exceeds requirements
- **Mitigation:** Implement async processing with progress tracking

Security Risk

- **Risk:** Unauthorized data access
- **Mitigation:** Implement multiple security layers and regular audits

Integration Risk

- **Risk:** Data format incompatibility
- **Mitigation:** Comprehensive validation and flexible field mapping

Technical Dependencies

1. AWS Infrastructure
 - SQS for job queue
 - Lambda for processing
 - Redis for rate limiting
2. Security Infrastructure
 - HMAC authentication
 - TLS 1.3
 - AES-256 encryption
3. Monitoring Infrastructure
 - Real-time dashboards
 - Alert system
 - Audit logging

Sign-off

- ☐ BigCorp CTO
- ☐ BigCorp CISO
- ☐ BigCorp Integration Lead
- ☐ Our Technical Lead
- ☐ Our Security Lead