**Data Migration Strategy & Validation Plan**

**Project:** Odoo ERP Integration for Safaricom Telecom  
**Version:** 1.0  
**Date:** [Insert Date]

**A. Purpose**

To define a structured approach for extracting, transforming, and loading (ETL) legacy telecom data into the new Odoo ERP system, ensuring data accuracy, completeness, and integrity throughout the migration process.

**B. Data Migration Objectives**

* Successfully migrate all critical data (customer accounts, billing history, financial records, inventory, service tickets) from legacy OSS/BSS and other systems to Odoo ERP.
* Maintain data integrity, consistency, and security during migration.
* Minimize downtime and operational disruption during cutover.
* Validate migrated data to ensure completeness and accuracy.

**C. Migration Scope**

* Customer master data
* Billing and usage records
* Financial transactions and invoices
* Vendor and procurement records
* Service management and fault logs
* User access and security roles

**D. Migration Approach**

| **Phase** | **Description** | **Deliverables** | **Responsibility** |
| --- | --- | --- | --- |
| **Data Assessment & Profiling** | Analyze legacy data sources for quality and structure | Data profiling reports | Data Migration Team |
| **Data Mapping & Transformation** | Define source-to-target mappings and transformation rules | Data mapping documents | Business Analysts, Data Migration Team |
| **Data Extraction** | Extract data from legacy systems | Extracted data files/logs | Data Migration Team |
| **Data Cleansing** | Cleanse data to remove duplicates, inconsistencies | Cleaned data sets | Data Migration Team |
| **Test Migration** | Perform trial migration runs to validate process | Migration test results and issues logs | Data Migration Team, QA |
| **Data Validation** | Verify data completeness and accuracy post-migration | Validation reports | QA Team, Business Users |
| **Cutover Migration** | Execute final migration during planned downtime | Migrated production data | Data Migration Team |
| **Post-Migration Reconciliation** | Reconcile source and target data to confirm success | Reconciliation reports | Data Migration Team, Business Users |

**E. Data Migration Tools & Technologies**

* ETL tools such as Talend, Informatica, or custom Python scripts.
* Data validation tools for automated consistency checks.
* Secure data transfer protocols (SFTP, VPN).
* Version control and backup of all data migration artifacts.

**F. Data Validation Plan**

| **Validation Type** | **Description** | **Responsibility** | **Acceptance Criteria** |
| --- | --- | --- | --- |
| **Record Count Validation** | Verify total records migrated match source | Data Migration & QA Team | Counts match within predefined thresholds |
| **Data Completeness** | Check mandatory fields are populated | QA Team | No critical missing data |
| **Data Accuracy** | Cross-check key fields against source data | Business Users & QA | No discrepancies in critical data fields |
| **Referential Integrity** | Verify relationships between data entities (e.g., customer-orders) | QA Team | No broken references or orphan records |
| **Performance Validation** | Ensure migration completes within planned timeframes | Data Migration Team | Migration completes without time overruns |
| **Security Validation** | Ensure data privacy and encryption during transfer | Security Officer | No data leaks or breaches |

**G. Risk Mitigation**

| **Risk** | **Mitigation Strategy** | **Owner** |
| --- | --- | --- |
| Data loss or corruption | Multiple backups, transaction logging | Data Migration Lead |
| Incomplete data mapping | Involve business SMEs in mapping reviews | Business Analyst |
| Legacy data quality issues | Extensive cleansing and profiling before migration | Data Migration Team |
| Downtime impacting operations | Schedule migration during low-usage windows | Project Manager |
| Security breaches during transfer | Use encrypted channels and access controls | Security Officer |

**H. Roles and Responsibilities**

| **Role** | **Responsibility** |
| --- | --- |
| Data Migration Lead | Overall migration strategy and execution |
| Business Analysts | Define mappings, validate business data |
| Data Engineers | Develop ETL scripts and automate migration |
| QA Team | Validate migrated data and conduct reconciliation |
| Security Officer | Ensure data protection and compliance |
| Business Users | Provide source data knowledge and validate output |