Vendor Portal – Business Process Design

Project Overview

The **Vendor Portal** project is aimed at streamlining vendor interactions, automating invoice processing, and centralizing purchase orders, goods receipts, invoices, and payment tracking. The **goal** is to **enhance operational efficiency by integrating with enterprise resource planning (ERP) systems within a self-service vendor portal hosted on Azure Cloud**.

Problem Statement

Existing System Challenges:

- **Manual vendor management** through emails, leading to inefficiencies and delays.
- Lack of a centralized system for tracking **purchase orders (POs), invoices, and payments**.
- Dependency on **spreadsheets** for financial reconciliations, increasing the risk of errors.
- Vendors **lack visibility** into invoice processing status and payment timelines.
- **Absence of real-time reporting** capabilities for financial and operational insights.

Proposed Solution:

- Implementation of a Vendor Portal for **centralized vendor interactions**.
- Integration with **ERP systems** via SFTP-based data exchange.
- **Automated workflows** for invoice processing, SOA reconciliation, and payment tracking.
- **Self-service capabilities** for vendors to track orders, submit invoices, and receive payment advice.
- **Role-based access** for vendors, finance teams, and administrators.

Solution Approach

1. Vendor Portal Development & Integration

- Cloud-based **Azure Infrastructure** for hosting and security compliance.
- Secure **user authentication with TOTP-based two-factor authentication**.
- **API & SFTP-based integration** with ERP systems for real-time data synchronization.
- **Self-service functionalities** for vendors to manage profiles, track invoices, and submit SOA.

2. Data Processing & Automation

- **ETL Pipelines** for automated data ingestion from ERP systems.
- **Data Normalization & Optimization** for structured financial records.
- **Automated invoice validation & approval workflows** to reduce manual interventions.

3. Reporting & Visualization with Dashboards

- **Custom dashboards** for POs, invoices, and payment statuses.
- **Ad-hoc reporting capabilities** for finance teams to generate real-time insights.
- **Role-based access control (RBAC)** ensuring secure data visibility.

4. Automated Reconciliation & Vendor Support

- **Automated SOA reconciliation** by comparing vendor-uploaded statements with ERP records.
- **Ticketing system for vendor inquiries** related to invoices, payments, and disputes.

Implementation Strategy

Agile Development Approach

- **Sprint-Based Execution:** Bi-weekly sprints for incremental feature rollouts.
- **Task Management:** Managed via **Jira & Confluence**.
- **Regular Stakeholder Reviews:** Weekly checkpoints and monthly releases.
- **User Acceptance Testing (UAT):** Feedback-driven refinements before production deployment.

Project Phases

1. **Requirement Analysis & Data Mapping** – Define ERP integration points and vendor workflows.
2. **Portal Development & ETL Pipeline Integration** – Automate invoice and payment tracking.
3. **Dashboard & Reporting Implementation** – Configure analytics and vendor insights.
4. **Go-Live & Performance Monitoring** – Deploy portal and ensure system stability.

Key Functionalities

- **Vendor Registration & Profile Management** – Secure onboarding with approval workflows.
- **Purchase Order (PO) Management** – Real-time access to POs with tracking.

- **Goods Receipt (GR) Management** – Vendor-side tracking of deliveries.
- **Invoice Submission & Processing** – PO-based and non-PO invoice automation.
- **SOA Reconciliation** – Automated matching with ERP records.
- **Payment Tracking & Advice** – Real-time vendor visibility into payment status.
- **Reporting & Analytics** – KPI dashboards and ad-hoc reporting.
- **Vendor Support & Inquiry System** – Self-service helpdesk for issue resolution.

Operational Metrics Tracked

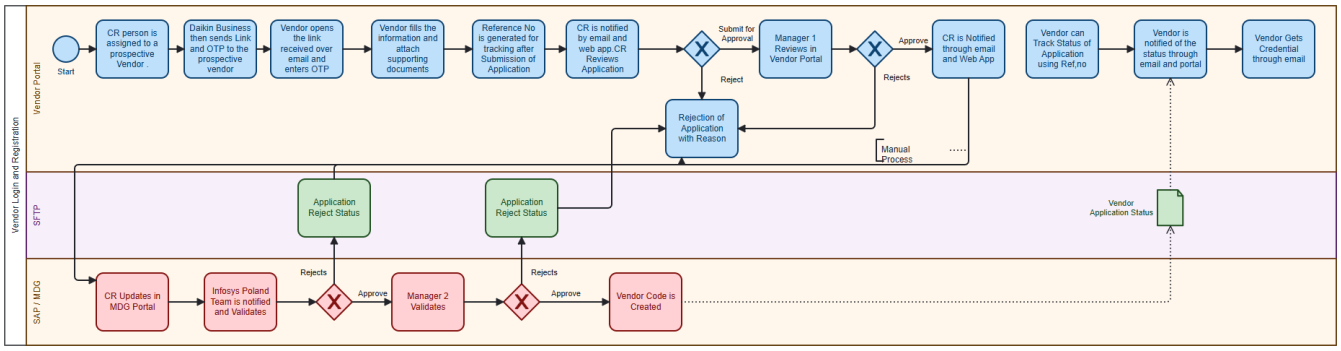
- **Invoice Processing Time:** Reduction in approval cycles.
- **PO to Invoice Matching Rate:** Accuracy in financial reconciliation.
- **Vendor Payment Turnaround Time:** Monitoring overdue payments.
- **Discrepancy Resolution Rate:** Effectiveness in SOA reconciliation.

Infrastructure and WorkFlows

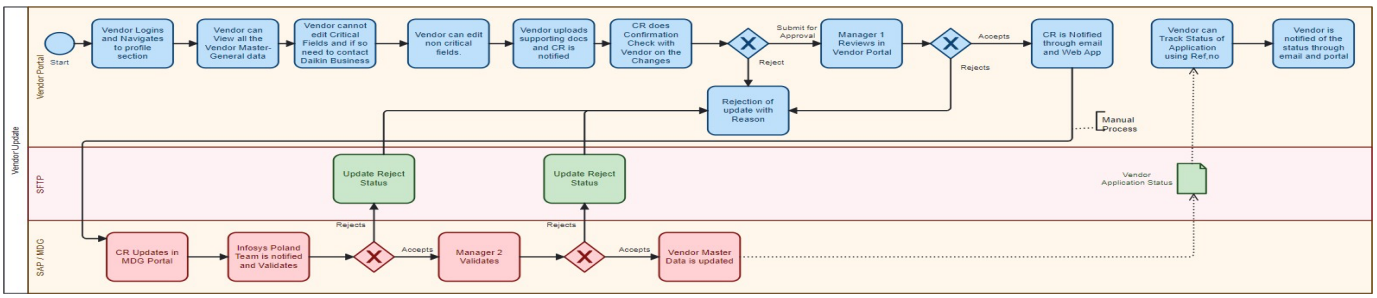
Azure Cloud Services Utilized:

- **Azure App Services** – Web hosting and security management.
- **Azure SQL Database** – Centralized vendor and financial data storage.
- **Azure Logic Apps** – Automated workflow management.
- **Power BI / Tableau** – Reporting and analytics visualization.

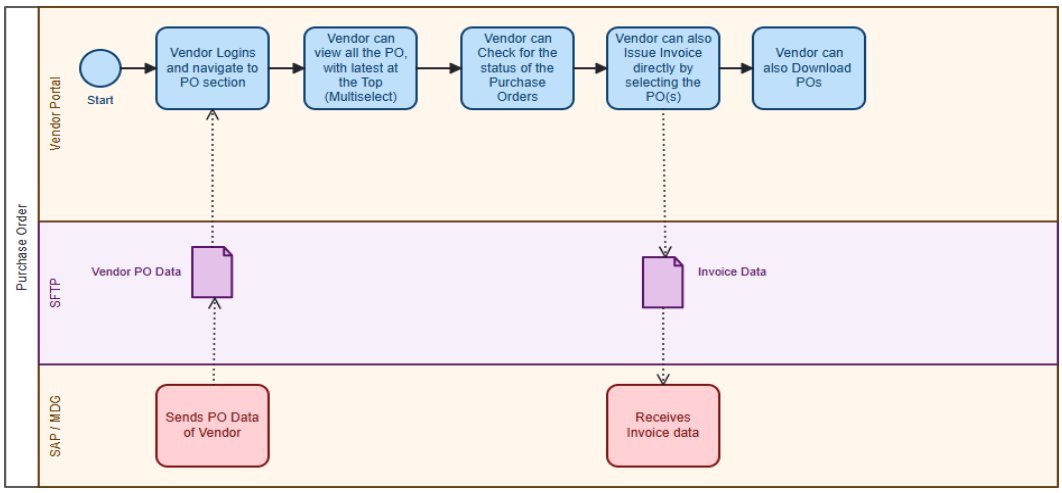
Workflow 1 – Vendor Login/Registration:



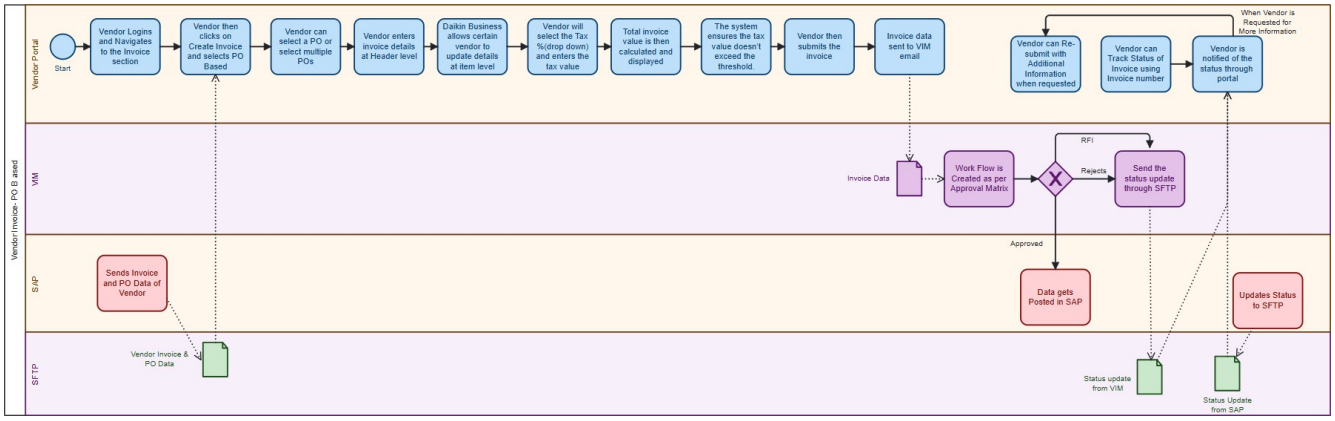
Workflow 2 – Vendor Update:



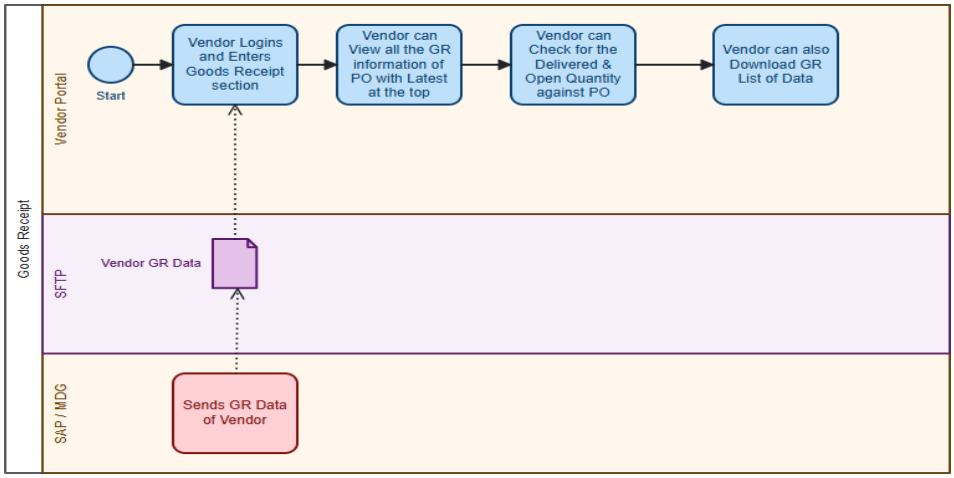
Workflow 3 – Purchase Order:



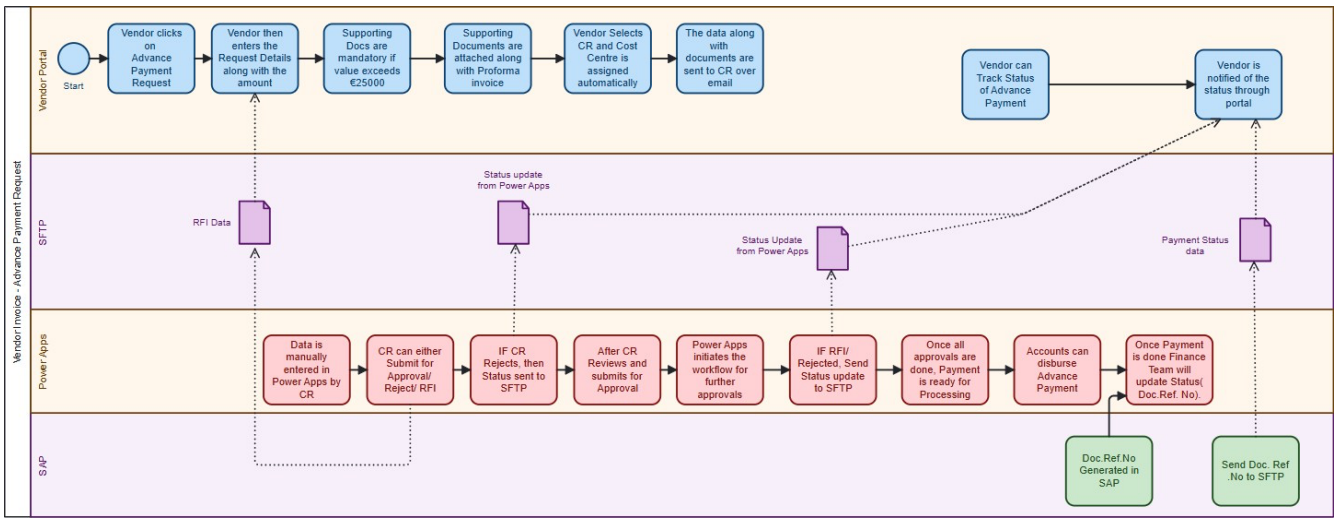
Workflow 4 – Invoice Processing PO based:



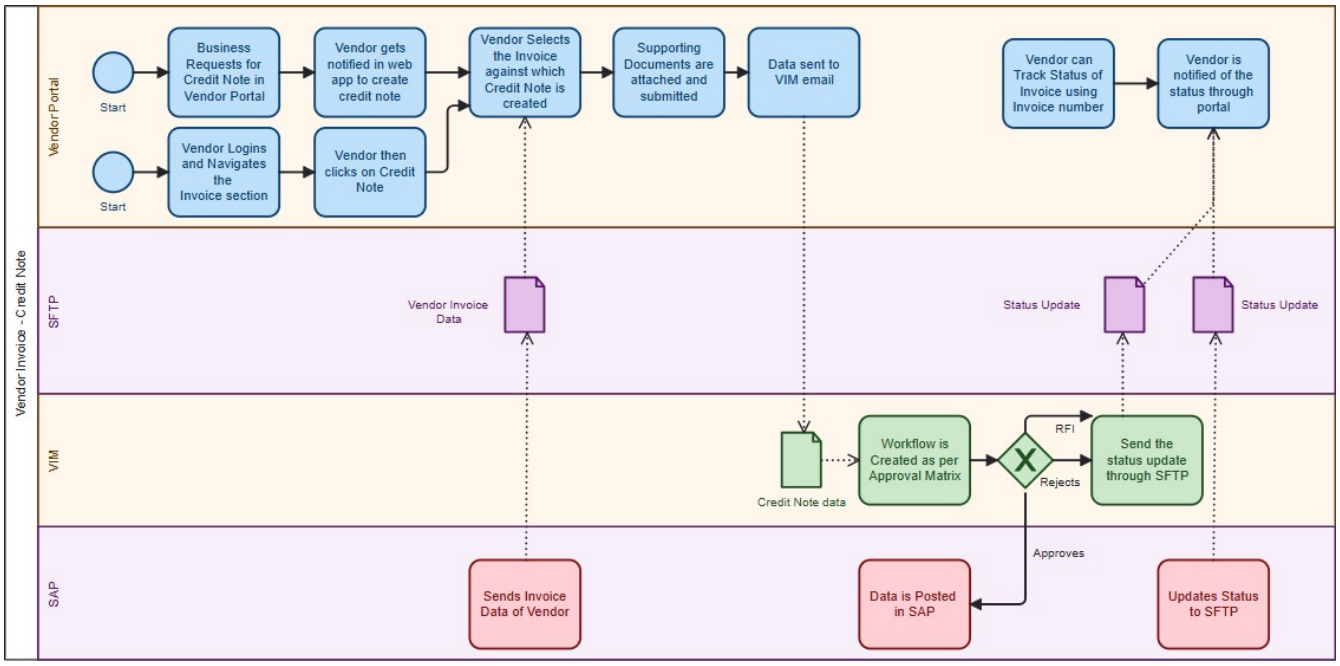
Workflow 5 – Goods Receipt:



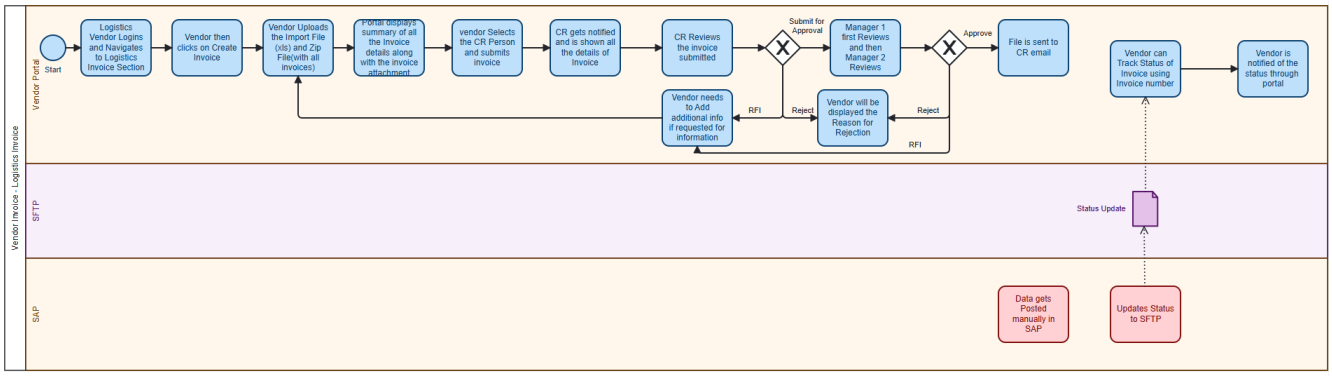
Workflow 6 – Advanced Payment Request:



Workflow 7 – Credit Note:



Workflow 8 - Invoice Processing-Logistics Invoice



Risk Mitigation Strategies

- **Data Accuracy Checks:** Automated validation scripts for invoice data.
- **Security & Compliance:** GDPR and regional data protection compliance.
- **Performance Optimization:** Scalable architecture to support vendor growth.
- **User Training & Support:** Documentation and onboarding assistance for vendors.

Conclusion

The **Vendor Portal** enhances operational efficiency, streamlines invoice processing, and improves vendor engagement. With an automated **data exchange with ERP systems**, **self-service reporting**, and **secure cloud hosting**, vendors gain **real-time financial visibility and process automation** for seamless business operations.
