OpenLegacy
Digital to the Core

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How a large bank used OpenLegacy to expose transactions on Tandem and Unisys Systems

OpenLegacy is the pioneer in digital-driven integration for complex legacy systems, mainframes, mid-range systems, databases and more. While many companies offer integration, we take care of the really hard part: the integration with the core legacy systems. This document describes how we helped a multi-national bank achieve digital transformation success in Tandem (HP Non-stop) and Unisys environments without the typical cost, staff, time and risk.

Executive Summary

- The bank was falling behind competitors and committed to a digital transformation process

- Many previous attempts were costly and failed to meet expectations

- OpenLegacy exposed their core banking applications

- Bypassed the ESB middleware and messaging layers

- With OpenLegacy, they met their goals for open banking and faster innovation

Accelerated time to market, creating an API in
1 hour
vs. 1-2 months

Created 6 new business workflows in just
2 weeks

TCO
reduced by running OpenLegacy APIs in the cloud

One
Java developer required to design and deploy APIs

Reduction
of testing time & resource dependency

Challenge

- Leveraging the bank's Unisys/Tandem mainframe system to increase ROI

- Opening up the IT stack, sharing data and integrating business processes

- Bank tellers used a combination of green screens and internal applications

- Vendors big and small had only partial success

- Modernization projects were slow, complex, nonscalable, and added to middleware layers

- After years of effort the bank's goals remained unmet

Solution

- Our platform exposed all core banking applications and hundreds of processes

- Code was generated automatically, using templates

- Our mainframe connector, COBOL parser and API generator deployed six processes in a 2 week sprint

- No changes required to legacy systems

- Bypassed layers of ESB/SOA complexity and exposed mainframes directly

- Fast and reliable test execution, full alignment with DevOps for velocity and scale

By the Numbers: APIs with OpenLegacy

200	600	40	100
production APIs (Unisys/Tandem)	production Elements (SDK)	APIs developed in 1 Quarter	Elements developed in 1 Quarter

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Instead of embarking on an exhausting project of eight or ten years, with probably disappointing results, we focused on the customer experience while eliminating the middleware layers. In parallel, the institution started its digital branches and opted to be "the best digital bank in the region."

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CIO, Large Bank

# Different core backend systems require different access methods

The bank needed a number of options to integrate their Tandem/Unisys applications. OpenLegacy provided them the flexibility and standardization in one digital driven integration platform.

- SOAP Integration with Tandem Pathway

- JOLT/SALT Tuxedo Integration
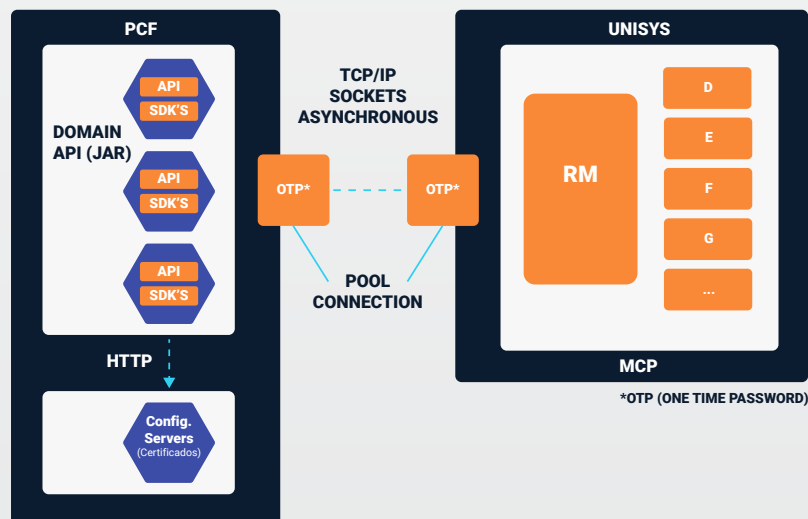
- MQ Integration

- OpenLegacy Connector

OpenLegacy enabled the bank to select the most cost and time effective solution for their backend applications. This allowed them to avoid expensive custom coding, purchases of additional 3rd party licenses and most importantly freeing them from deeper technical debt.

This bank implemented a direct architecture leveraging Pathway and Tuxedo. The architectural pattern for both the Tandem and Unisys systems are shown below.
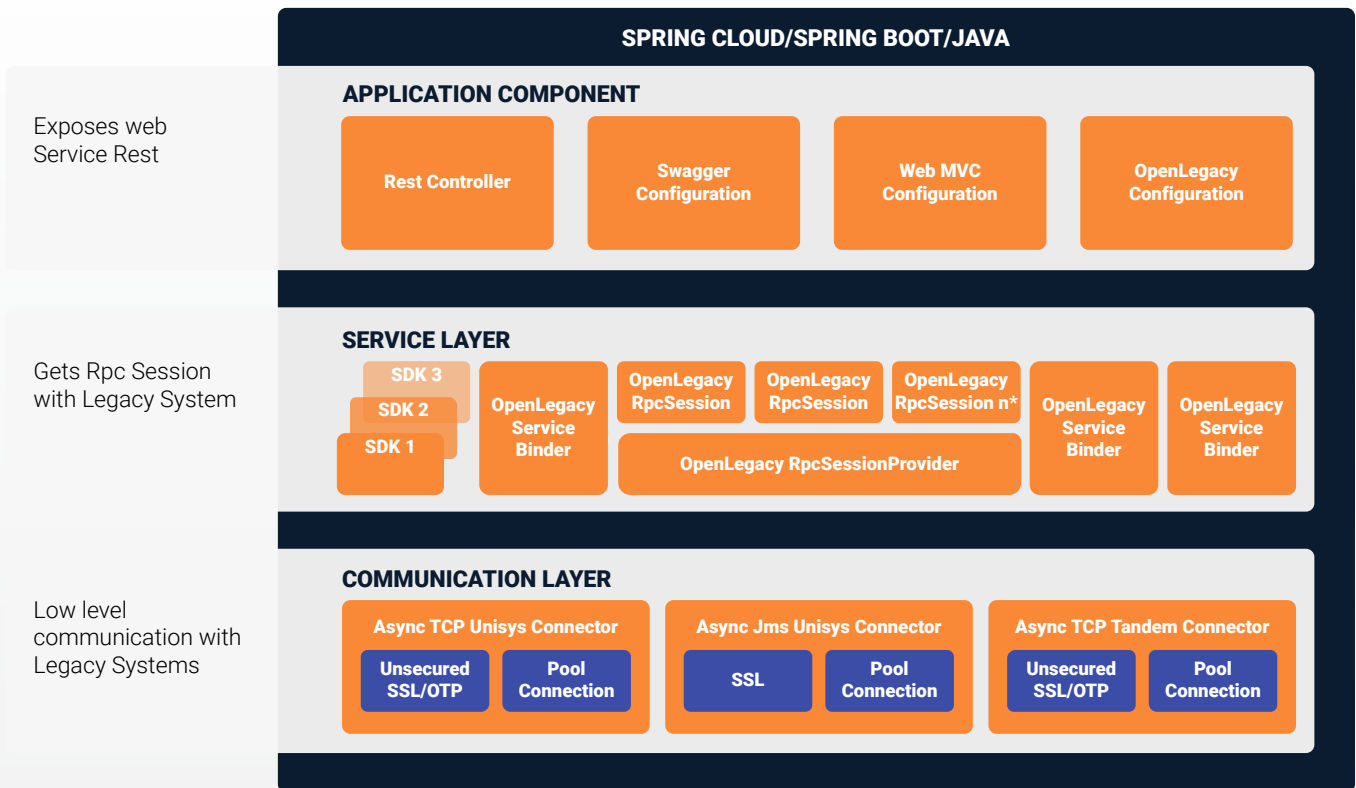
Tandem architecture
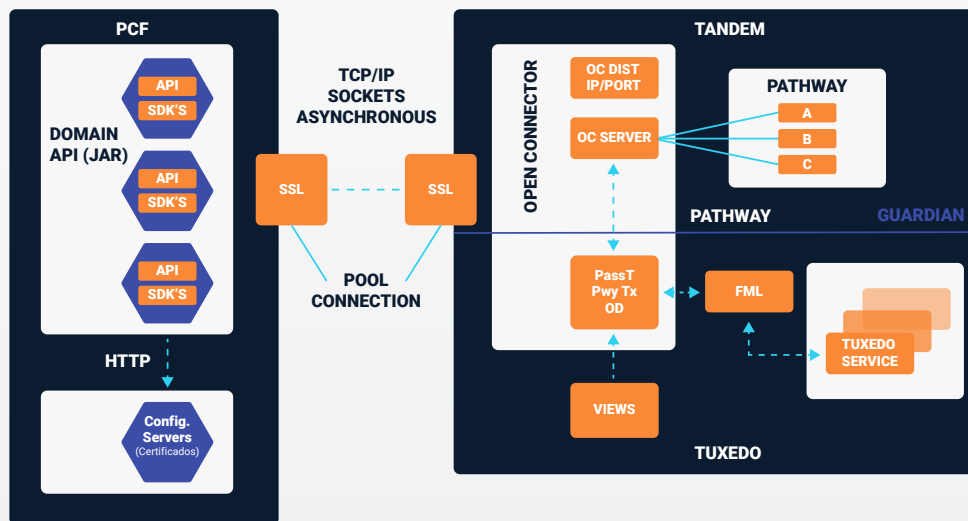
Unisys final architecture

The bank used OpenLegacy's automatically generated SDKs and RPCsessions to create a simple integration service layer. This configuration decoupled the bankend applications, giving them flexibility and a standard interface for Tandem and Unisys. This architecture bypasses existing ESB/SOA and in-house developed middleware. The elimination of these layers dramatically improved run-time performance.

Bank customization of microservices with OpenLegacy

SPRING CLOUD/SPRING BOOT/JAVA

APPLICATION COMPONENT

Exposes web Service Rest

| Rest Controller | Swagger Configuration | Web MVC Configuration | OpenLegacy Configuration |

SERVICE LAYER

Gets Rpc Session with Legacy System

SDK 3
SDK 2
SDK 1

OpenLegacy Service Binder

OpenLegacy RpcSession | OpenLegacy RpcSession | OpenLegacy RpcSession n*

OpenLegacy RpcSessionProvider

OpenLegacy Service Binder | OpenLegacy Service Binder

COMMUNICATION LAYER

Low level communication with Legacy Systems

Async TCP Unisys Connector
Unsecured SSL/OTP | Pool Connection

Async Jms Unisys Connector
SSL | Pool Connection

Async TCP Tandem Connector
Unsecured SSL/OTP | Pool Connection

About

OpenLegacy's Digital-Driven Integration enables organizations with legacy systems to release new digital services faster and easier than ever before. It connects directly to virtually any core system, instantly creating microservice-based APIs that power exciting new digital services. OpenLegacy helps industry-leading companies drastically reduce costs and resources while helping them become digital to the core.