Digital Banking Revamp
Journey towards Modernization with WSO2

By Oan Ali Mandviwala

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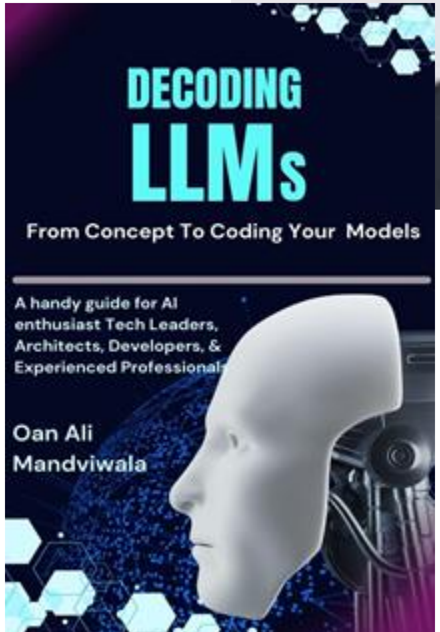
Know Oan Ali Mandviwala

Oan Ali Mandviwala is a technology leader with deep expertise in enterprise architecture, API ecosystems, and AI-driven transformations. With a proven track record across the GCC's banking and fintech sectors, he helps organizations modernize legacy systems, scale digital platforms, and harness emerging technologies. As the author of **"Decoding LLMs – From Concept to Coding Your Models,"** Oan bridges business needs with cutting-edge tech, enabling sustainable innovation through secure, scalable architectures.



🔥 Viral Complaint → #BankingFail → Loss of Trust

In 2023, Phoenix Bank suffered a major PR crisis.

A viral TikTok showed a 4-day delay in onboarding a new customer.

Over 1M views later, customers flooded social media demanding faster service.

Competitor neo-banks were onboarding in under 10 minutes.

Leadership initiated 'Project Swift' to rebuild their digital banking experience.

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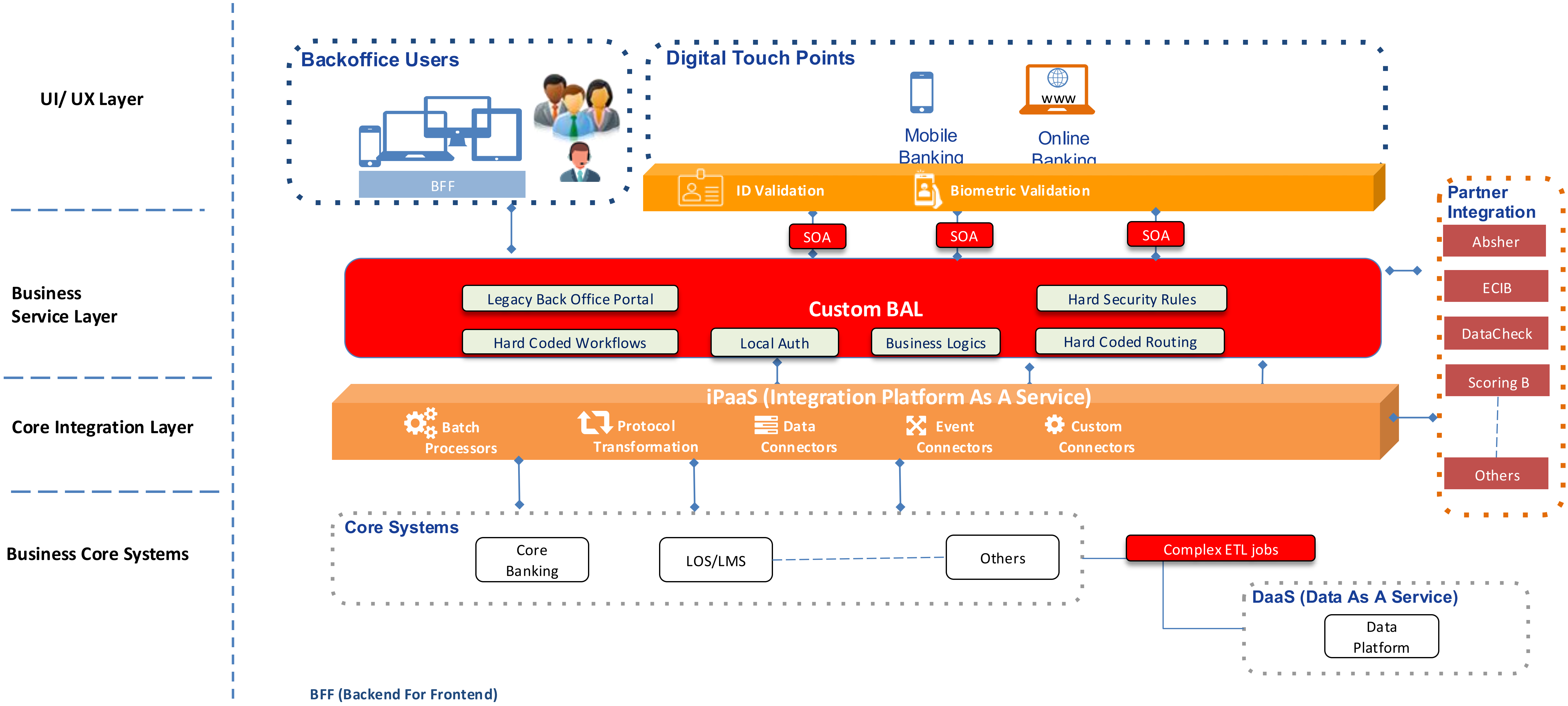
Challenges & Impact of Legacy Systems

Challenges		Impact
• UI/UX and business and data access logics are tightly coupled in one application layer.	**Tight Coupling**	• Any changes triggers complex development, regression testing, and deployments. • Business receives high efforts, timelines and cost on changes and misses the market opportunity. • Difficult to upgrade to the new version of application
• Deployment is limited to proprietary hardware and technologies. • Difficult to scale horizontally as all functionality is built-in one box	**Deployment & Scalability**	• Difficult to deploy on modern infrastructure on cloud. • Higher Infra Capex and Opex. • Entire application needs to be scaled which incurs additional infrastructure overhead§
• Any New/Existing application functionality lives and dies with the application	**Reusability**	• These complex functionalities cannot be exposed via standard APIs.
• Does not support modern authentication protocols like AD Authentication, oAuth, SAML etc.	**Modern Authentication**	• Each application follows it's own proprietary authentication making users to maintain multiple security credentials for multiple applications.
• Unable to Push the transactions data in real-time to Data Lake. • Batch data push requires complex ETL jobs.	**Data Analytics**	• Difficult to implement real-time data analytics.

Phoenix Bank - AS IS Architecture



Applied 5 Rs (Rehost, Rearchitect, Rebuild, Replace, Refactor) to revamp the digital banking components

WSO2

Rehost — Moved from an old-school VM-based platform to a robust Kubernetes Platform on a private cloud

Rearchitect — Breaking the monolithic architecture of complex & hard-coded logic into business capabilities-driven microservices

Rebuild — Completely revamp the mobile application on React Native from a proprietary RAD tool.

Replace — Replaced custom CMS with API first CMS – Strapi
Replaced local CIAM with WSO2 Identity Manager

Refactor — Refactor iPaaS to expose standard Rest APIs

APIM & CIAM

WSO2 Stands Rock Solid at all Rs

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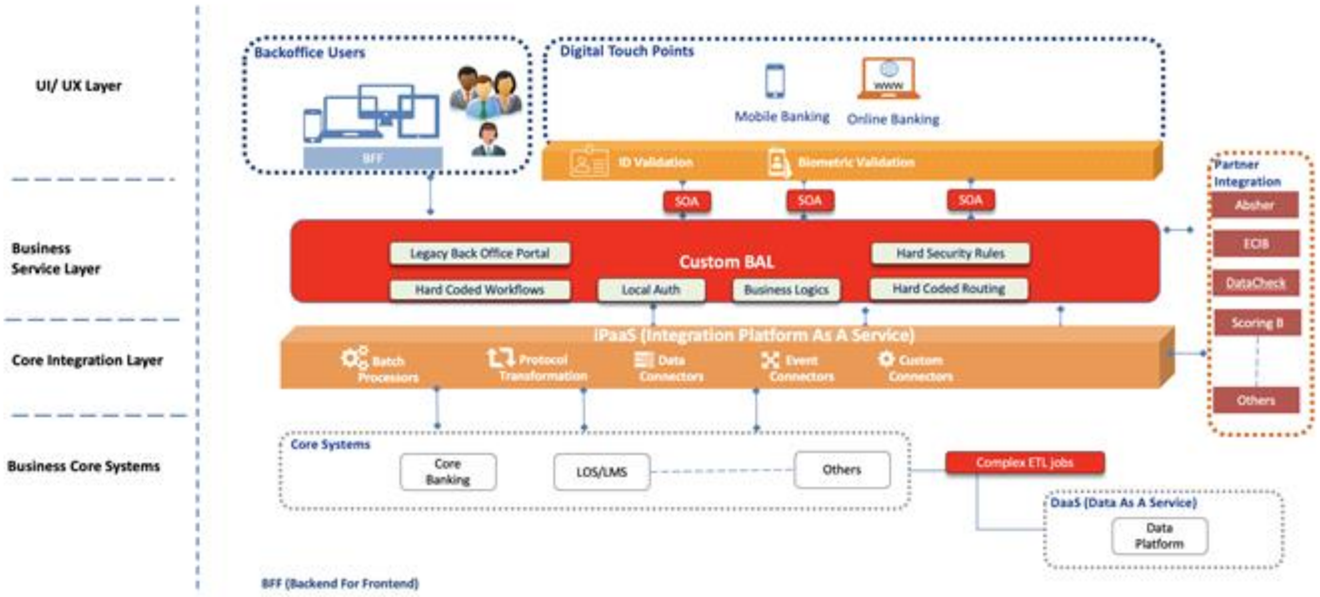
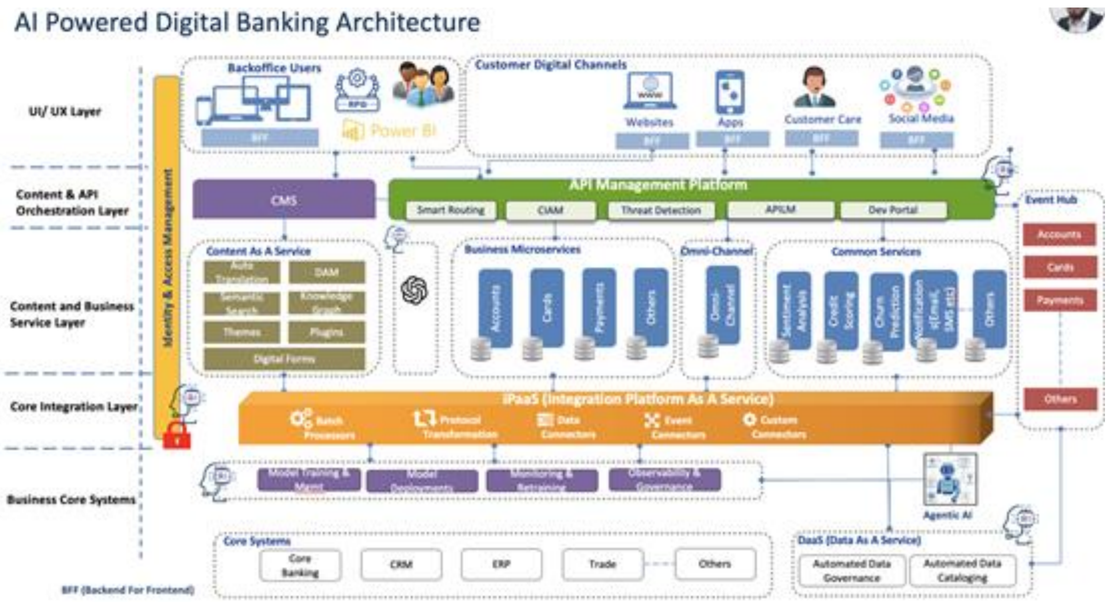
From Zero to Hero - WSO2 helped us go beyond the expectations

Before



After



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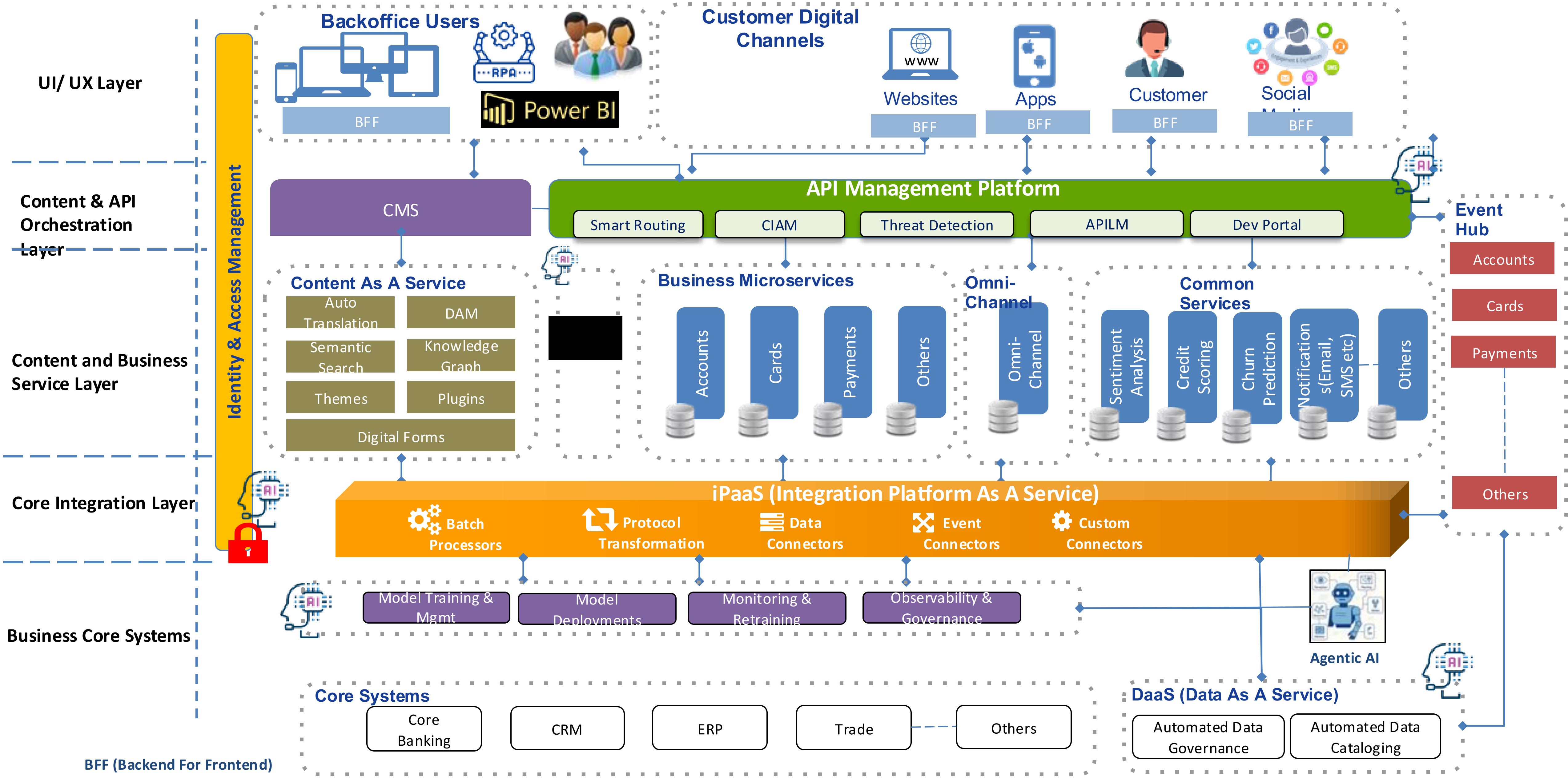
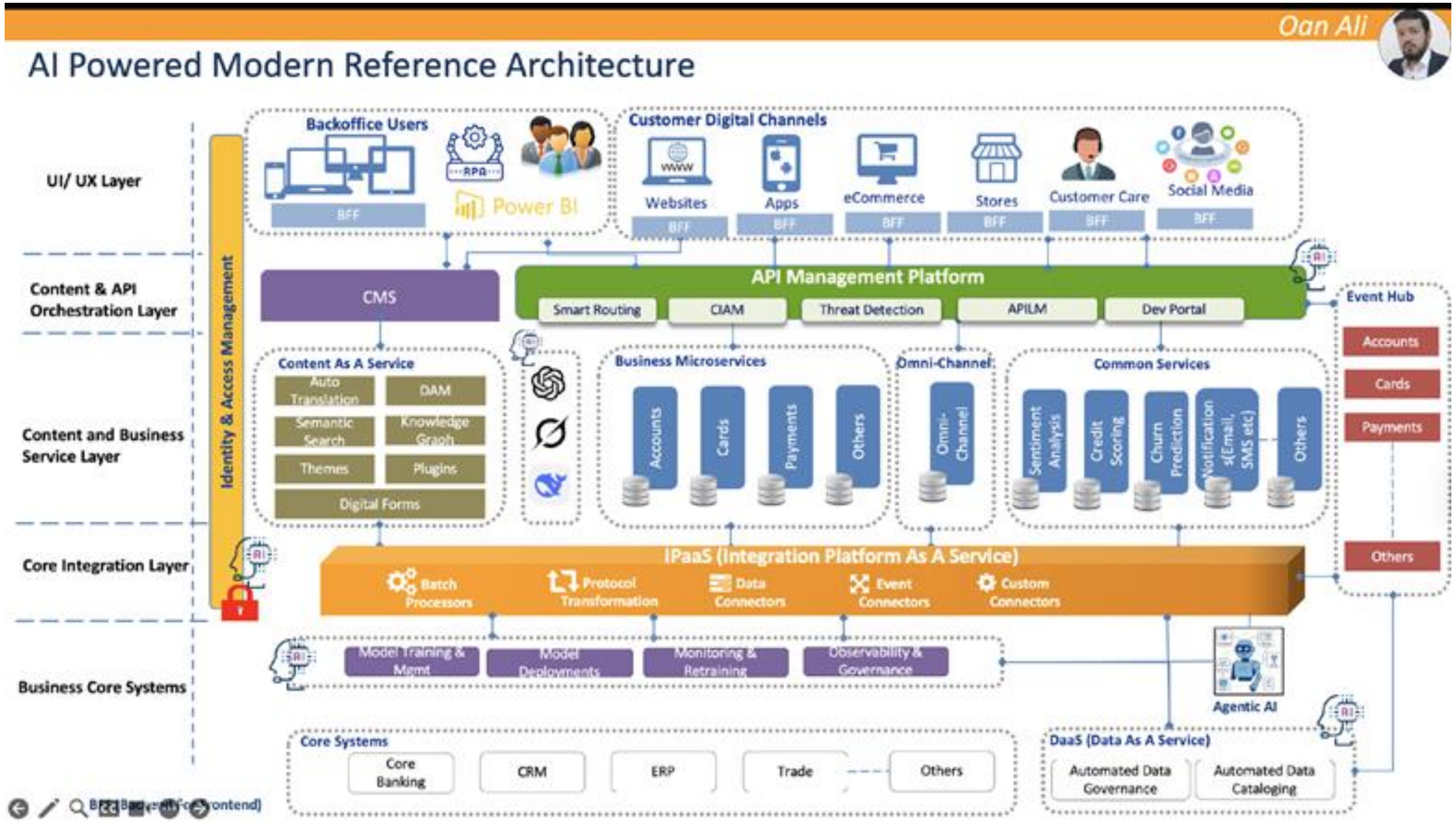
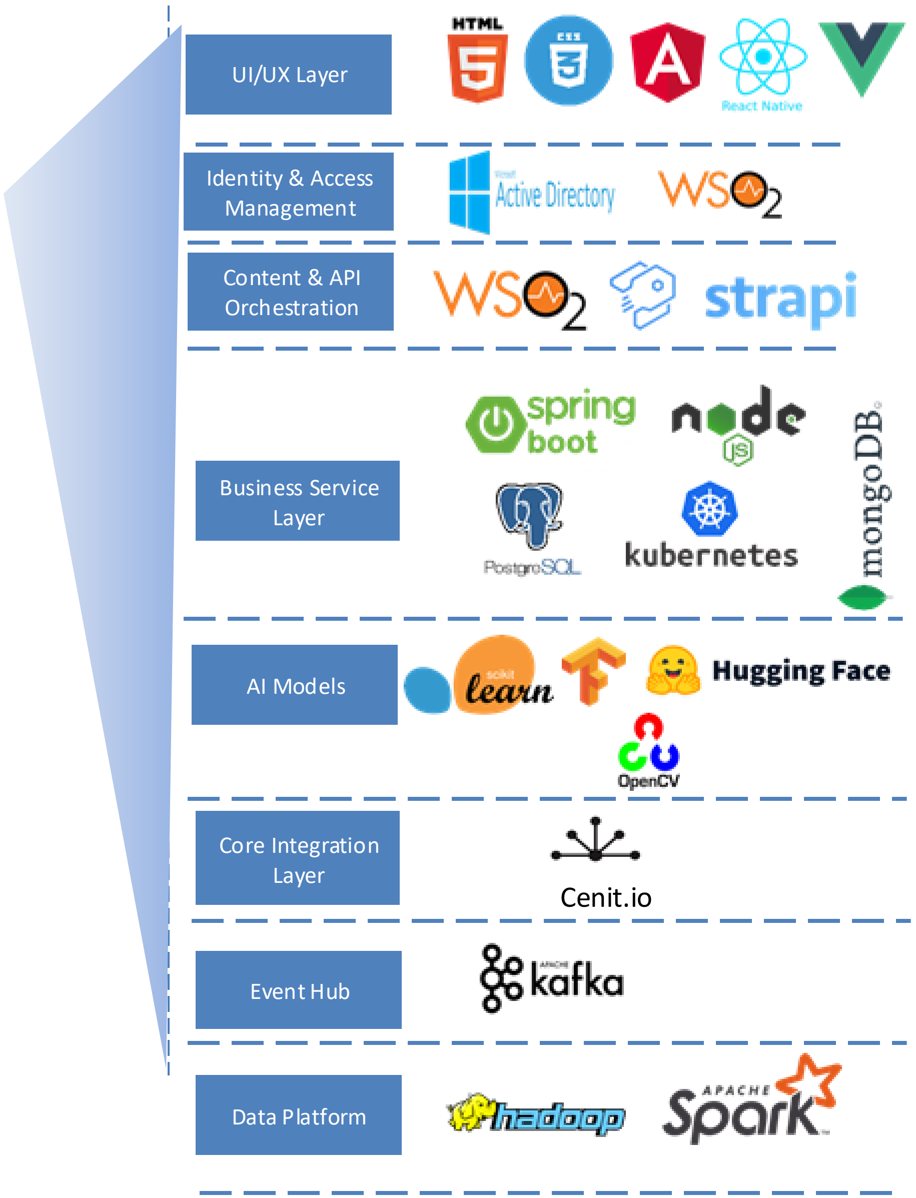
AI Powered Digital Banking Architecture



Recommended Technology Stack



Recommended Open Architecture Technology Stack



From 0 to Digital in 12 Months – Key Wins -- WSO2 served as glue across Fintechs, legacy apps, and customers

- Onboarding: 2 days → 10 minutes
- 200+ APIs published securely
- OAuth2 + SSO improved customer trust
- Weekly feature releases via CI/CD
- Real-time audit logs for compliance

“WSO2 helped us build agility, not just APIs.” – CIO

Replicating the Success – Practical Takeaways

START WITH ONE SOLID API USE CASE (E.G., ONBOARDING)

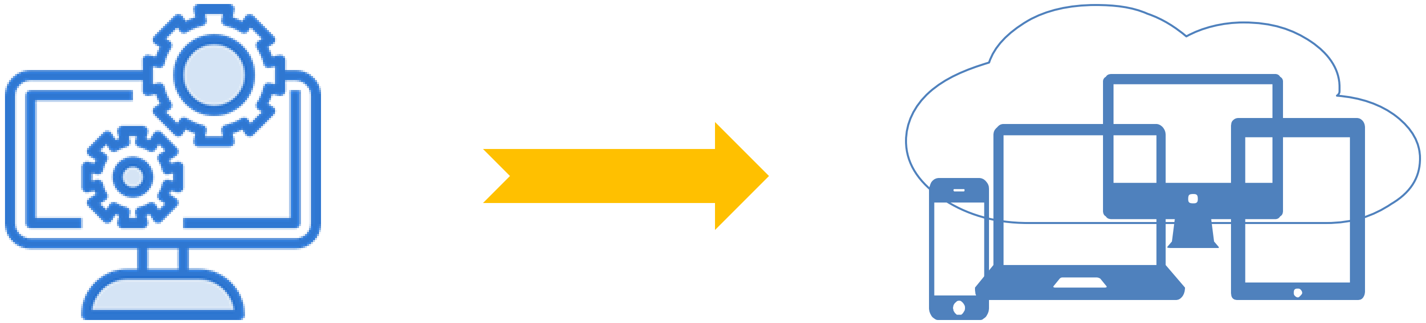
MODULAR WSO2 ADOPTION MINIMIZES RISK.

DEVELOPER PORTAL ACCELERATES INTERNAL & PARTNER DEVELOPMENT

OBSERVABILITY IS A MUST-HAVE, NOT A NICE-TO-HAVE

SECURE EARLY WITH OAUTH2, CONSENT, AND MFA

Questions?



Legacy Application **Modern Application**

Example Rearchitect - Approach used to modernized bespoke monolithic application to modular microservices based architecture

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Example – Rebuild App