ORACLE

Rethinking the Digital Banking Platform:

Essential Springboard to Banking 4.X

What's Inside

The race is on

The race continues to own the financial customer relationship, and the competition has never been more intense—with fintechs, challengers, big tech, and even e-tailers all jockeying for position and wallet share.

While historically not as agile as fintechs and challengers, banks retain a powerful edge in the form of:

- Trust and goodwill
- Security and privacy
- Compliance experience and infrastructure
- Working relationships with peers and technology newcomers
- Banking licenses

These strengths, however, have been complicated by process lock-in and experience rigidity.

How can banks build on these strengths and elevate agility—with the least risk possible—to deliver the profoundly personalized and value-add relationships today's customers seek?

It starts with a solid foundation that serves as both an incubator and springboard for smarter, stronger, more agile banking.

Where we are today

Expanding Regulatory Oversight:

Today, nearly every bank claims to be a digital bank, offering Internet banking, mobile applications, and more. But, are those various channels and offerings actually delivering a truly intuitive, frictionless, and value-add experience?

Part of the challenge has been one-off, siloed modernization initiatives. And, risk remains a huge inhibitor to wholesale core transformation due to decades-old entrenched systems. The fear of modernizing one area only to break another is both widespread and valid.

Digital banking solutions need to evolve from providing channel-specific or line-of-business-specific, siloed experiences to a fully integrated—and increasingly, advisory—experience that encompasses the entire banking portfolio of a customer.

Over 90%

of financial services firms rely on legacy technology in some form to deliver their services. Firms with a lower proportion of legacy infrastructure and applications had a higher change success rate.

"Implementing Technology Change,"
Financial Conduct Authority – 2021

A new vision

The 2021 **World Retail Banking Report** heralds the emergence of the next-generation of banking—Banking 4.X. *It defines this new era as "experience-driven, platform-based, optimum channel banking resilient to financial and non-financial threats, built around long-term, sustainable growth where human interactions evolve from servicing to advising."*

Banking 4.X requires enabling the right transactions through the right channel at the right time—an optimum-channel concept that goes beyond omni-channel. This might include digital personal assistants working as banking assistants, approvals on wearables, peer-to-peer payments, voice-assisted transactions, chatbot-based self-originations, video Know Your Customer (KYC) compliance, micro-transactions via Quick Response (QR) codes, subscription-based services using IoTs for consumption tracking and payments, and so much more. The possibilities are endless with the right foundation.

To thrive in the era of Banking 4.X, financial institutions need a banking solution that delivers ready-to-deploy retail and corporate banking experiences along with intuitive dashboards and intelligent widgets that empower customers to make highly informed financial decisions. These experiences, when integrated with user-facing, process-accelerating interfaces, provide bank customers with a definite time to yes, along with drastically reduced processing time.

Seeking a culture of creativity

Moving to the next generation requires continuous innovation and continuous delivery (CICD)— and a technology foundation that can enable it. A CICD technology approach, combined with a commitment to DevOps plays, can pave the way to creating a digital factory, where the assembly lines are not blurred by over-subscription of technology.

It starts with a cloud-ready component blueprint, a relentless focus on superior channel and product experiences, and creative thinking. It also requires a focus on unit of value and how each architecture component can be crafted to deliver a quantifiable change to the business without creating an uncontrolled ripple of disruption.

Your platform should be capable of supporting regulation-driven Open APIs as basic hygiene, while empowering your organization to take full advantage of API banking technology to accelerate innovation by partnering with fintechs, technology partners, and other banks. At the same time, the APIs should also be available for internal consumption and reuse by other bank applications to optimize investments.

As important, interoperability to support systems, gateways, and regulatory compliance must be seamless. Adherence to open standards is important—and you need to critically evaluate the right balance between the cost of platforms, vendor lock-in, re-usability of open systems/projects, and adherence to interoperability standards.

A flexible vision and platform that supports CICD can open the doors to many possibilities that keeps your institution at the center of the relationship.

Banking-as-a-Service
Allow a fintech to use a bank's services to enable it to provide banking functionality

Aggregator
Aggregate multiple APIs from financial service providers to give customers a unified view of their financials

Expertise-as-a-Service
Create customer-centric model, where experts (or expert systems) are embedded in daily business of customers and offer constant customer engagement

Distributor
Integrate external services into the bank's existing offerings to offer customers an end-on-end experience

Banking-as-a-Platform
Aggregate traditional services with digital and new services from third-party partners to offers new services on banking channels

Solution vs. platform: finding your perfect fit

Depending on your customer demographic and market-driven aspirations, you can choose to deploy a ready-to-go shrink wrapped solution for a limited and well-defined target market or a digital banking platform that delivers an agile and flexible solution that positions your bank to respond rapidly to market and customer trends.

Most digital banking solutions offer banks a ready-to-deploy offering built to provide a best-of-breed digital banking experience with limited scope for bank customization.

Banking platforms, in contrast, provide a greenfield where you can build it your way. The challenge is that platforms in the past have delivered only a baseline and, you had to take it from there. This meant building everything from scratch, which requires tremendous, time, expertise, and funds.

You and your bank seek a best-of-both-worlds approach with ready-to-go-digital-experiences on a flexible and scalable digital banking platform.

Solutions at work:
Leading Pan African digital banking transformation with Oracle

Ecobank Transnational Inc.

Goals

- Advance role as an economic catalyst for the region
- Elevate the customer experience
- Accelerate the development and delivery of new products

Challenges

- Deploy a modern technology infrastructure that could support a digital-first strategy
- Deliver an omni-channel experience
- Streamline compliance

Success

- Created a foundation for open banking that will dramatically elevate the customer experience and accelerate time to market
- Set the stage for delivering a platform to fintechs that want to do business in Africa
- Gained the ability to respond rapidly and effectively to regulators using a single source of truth

Banking-as-a-Service (BaaS) platform models is the way forward for banks to thrive in Banking 4.X.

BaaS needs a digital foundation powered by:

API Networks   Cloud Infrastructure   Modern Core
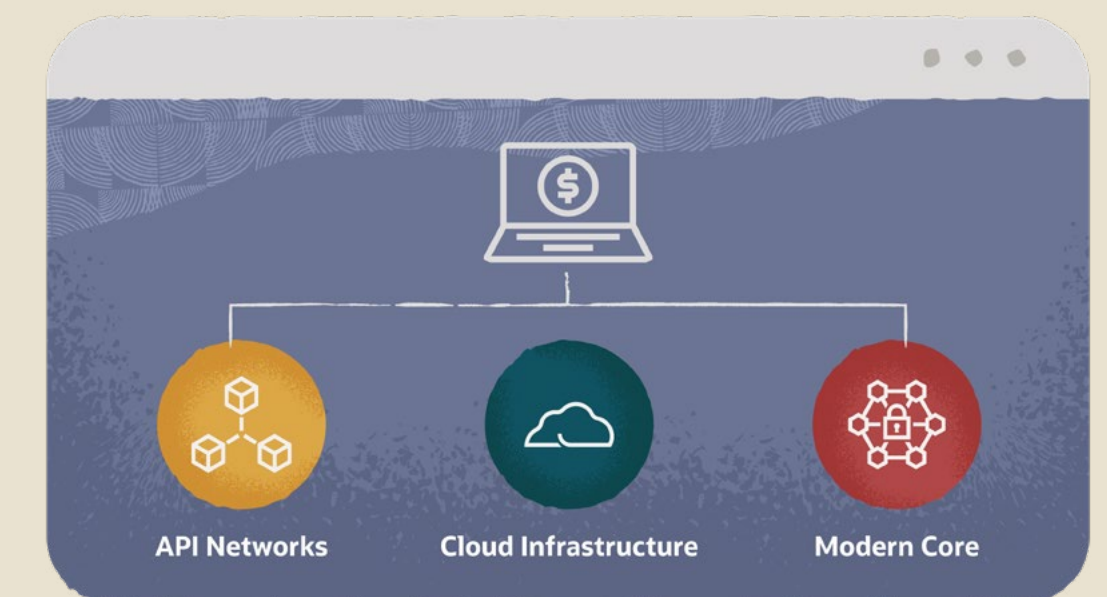
Source: World Retail Banking Report

Universal toolkit and well-equipped workshop

A digital banking platform should function as both an extensible, universal toolkit and a well-equipped workshop. It needs a library of processes and experience that you can use as is, as well as the environment and tools to build completely new experiences, processes, banking APIs, and more from the ground up. For example, you might want to create a customized loan origination experience, where customers can identify how much they would like to pay monthly or can pay a premium for greater flexibility with payment amounts and timing, as well as other options.

The platform should also allow your organization to connect its systems to its internal technology ecosystem, which may include third-party banking technology. This capability enables you to provide customers a unified experience while partnering ith external players, like fintechs, to give customers the best of both worlds.

Solutions at work:

Fueling excellence with Oracle Banking Digital Experience

Allied Bank, Pakistan

Goals

- Improve the customer journey
- Scalable solution that breaks silos
- Seamless omni-channel experience for customers on any device

Challenges

- Integrate with a non-Oracle core banking system
- Go live with omni-channel internet banking and mobile banking at once
- Provide retail and business customers superior digital banking

Success

- 500,000 digital banking users in two years
- Customer shift from 60% branch banking to 60% on digital
- 75% reduction in transaction cost to bank
- Digital business banking, profile customization, and Siri banking

Banking Platform Essentials

Connect to the Open Banking ecosystem and comply with Open Banking regulations

Support faster time-to-market and a unified digital banking experience

Enable you to build your own experiences in-house without the need of a system integrator

Empower you to adopt any contemporary channels and embrace new channels that may emerge to build a future-proof solution

Support secure partnering with fintechs, giving full consideration to customer consent and privacy

What should you have in your digital banking platform?

What should you have in your banking platform workshop and toolkit?

We offer five must-have capabilities.

1 **Foundation to build an optimum-channel digital experience, which encompasses:**

– A platform that enables business orchestration, transaction workflow management, as well as manages authentication and authorizations

– Responsive, context-aware experiences across mobile, tablet, desktop, browsers, and apps

– AI-driven chatbots—in application or on messaging platforms

– Personal digital assistants, such as Siri and Alexa

– Wearable, iMessage, and Twitter-specific banking experiences

– Ready-to-deploy experiences

  ◦ For Corporate Banking: Virtual account management, liquidity management, cash management, trade finance, supply chain finance, and corporate lending

  ◦ For Retail Banking: Origination, personal finance management, payments, account aggregation, and wealth management

2 **A robust consent and authorization management framework, as well as multi-level authentication capabilities**

Solutions at work:
Energizing growth with Oracle FLEXCUBE and Oracle Banking Digital Experience

Aman Bank

Goals

- Keep pace with evolving customer needs and digital expectations
- Make banking more efficient and convenient

Challenges

- Ensure a seamless, digital solution that spans multiple channels—branches, ATMs, kiosks, the internet, mobile browsers and applications, and social media
- Continue to scale and expand capabilities to support new channels

Success

- Grew from more than 300,000 to 1.5 million active accounts since deploying
- Empowered customers to open an account and make deposits without visiting a branch
- Gained ability to activate a checking account in three minutes
- Gave customers more flexibility to transfer money between accounts at Aman Bank and other institutions at no cost
- Expanded digital payment network – growing its network to 4,000 merchants in Tripoli using QR-based payments

What should you have in your digital banking platform?

3 **An administration dashboard that includes persona-based templates and experience modification capabilities**

4 **Components and services for customizing and ensuring extensibility, including:**
- Design Studio
  - Use experience toolkit
  - API toolkit
  - Routing Hub

5 **An extensive and easy-to-use API library and catalog that includes compliance, as well as business-specific functions, supported by:**
- Open Banking-related partnership with members of an extensive fintech cohort, Open Banking compliance-related banks and innovative banks building smart experiences

Oracle's Digital Banking Platform consists of **Oracle Digital Banking Experience** and **Oracle Banking APIs**.

Solutions at work:
In-house implementation with Oracle Digital Banking Platform's Design Studio

Hibret Bank, Ethiopia

Goals
- Become a top 5 private bank in East Africa
- Market leader for innovation and digitization

Challenges
- Deliver banking services on online and mobile banking channels
- Enhance automation, efficiency, and customer experience

Success
- Implementation completed by the bank's In-house IT team
- Automated the loan origination process
- Seamless fund transfers, bill payments, domestic transfers, and bulk payments
- Ability to open account via a mobile device

Oracle Financial Services makes it easy

For customers caught in a dilemma of choosing either a digital banking solution or a digital banking platform, Oracle provides an omni-channel, core agnostic, digital banking platform that comes with extensive ready to use retail, corporate, and small and medium-sized enterprise (SME) banking functionality.

It also provides an Open Banking platform with ready to use APIs, third-party management, authentication, authorization frameworks, along with support for OAuth, Open ID and strong customer authentication (SCA).

Oracle provides banks the best of both worlds allowing them to start from a fully functional banking solution built using Oracle's digital banking platform. This cloud-based platform enables you to configure the digital banking offering to any extent to suit your bank's objectives and vision.

One-stop digital banking shop

Ready for Business
- Retail Banking
- Corporate Banking
- SME Banking
- Islamic Banking

Highly flexible and extensible
- Design Studio
- Configure and parameterize
- Drag and Drop dashboard configuration
- Open standards help utilize existing developer ecosystem, in-house skills and expertise

Open API Banking Enabler
- Collaborate with Fintechs
- Launch Innovative Services
- Offer Banking-as-a-Service

Banking apps
- Out-of-the box apps
- Device interactions & adaptiveness
- Facebook messenger Chatbot
- Voice based Siri Payments

UI framework
- Responsive design
- Support for multiple client platforms/devices

Host integration Framework
- Authentication and Authorization
- Limits and Entitlements
- Auditing
- Scalability and Performance

Oracle's Digital Banking Platform

Oracle Technology Stack
- Oracle Cloud Services
- Oracle Intelligent Bot Service
- Oracle Identity Cloud Service

Oracle banking architecture hallmarks

Hallmark 1: Architecture that is componentized within and pre-integrated across tiers

Componentization allows for components to be deployed, patched, and upgraded independently of each other

Components map to business domains

Digital experience components are built on REST APIs and Oracle JET, HTML5, CSS3, JS

Components are pre-integrated using the Oracle Banking Routing Hub

Components can be co-deployed to share a common core

Routing Hub integrates and optimizes experiences

Oracle's digital banking platform comes with a No Code-Low Code Design Studio. The Design Studio provides bank business and technology personas the capability to modify and extend the solution with zero or minimal coding expertise. The Design Studio consists of an API Builder, a UX Toolkit, and a Routing Hub.
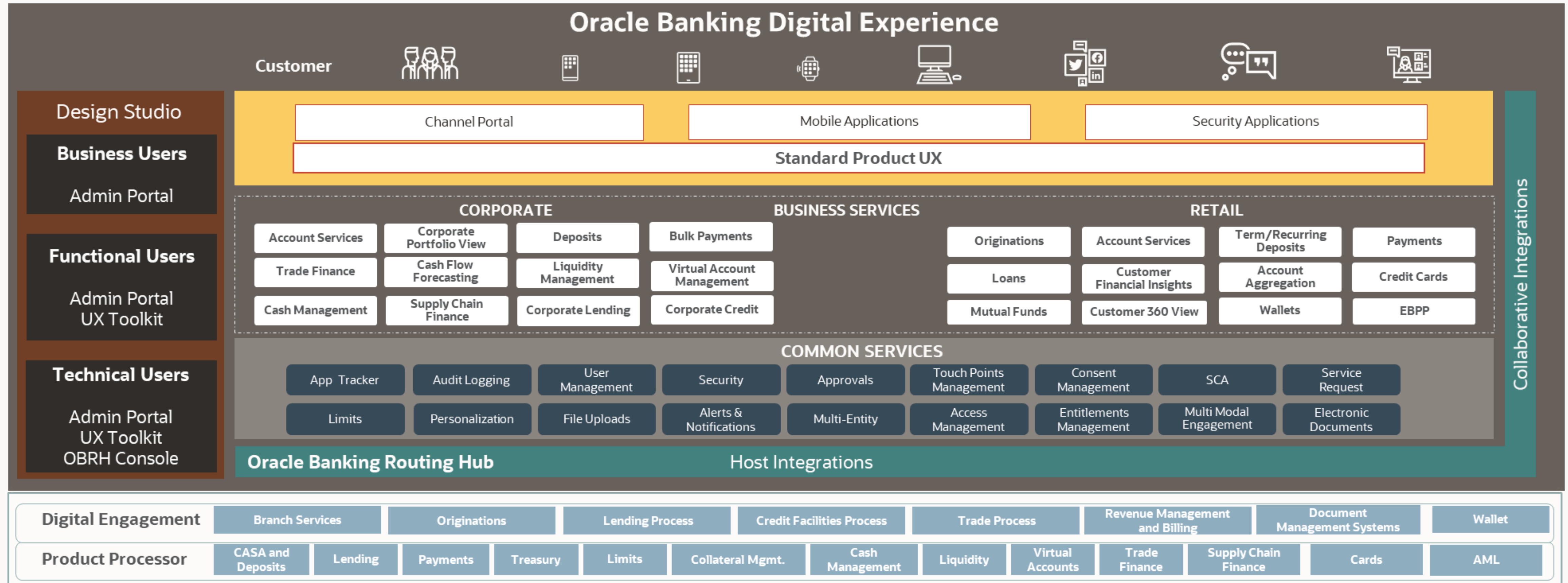
The API builder enables the bank citizen developer to extend existing APIs, shape APIs emerging from the core, and build new APIs to provide APIs hooks to which experiences can be connected.

The UX Toolkit helps in building components like widgets for specific banking functionality and in choosing page layouts by offering a range of commonly used components. Banks can develop and preview interfaces for any form

factor, such as desktop, mobile, and tablets. APIs and experiences created using the API builder and UX toolkit can be integrated to relevant core processors using the Routing Hub.

The Routing Hub empowers banks to integrate services from Oracle's digital banking platform with any Oracle mid-office processor and core processor to ensure the experiences created are enriched with contextual information to achieve the expected outcome from the newly designed digital experience. The Routing Hub integrates Oracle solutions with third-party processes, in addition to all Oracle solutions.

Oracle banking architecture hallmarks

Oracle Banking Digital Experience

Customer

Design Studio	Channel Portal	Mobile Applications	Security Applications
Business Users		Standard Product UX	

Business Users

Admin Portal

Functional Users

Admin Portal
UX Toolkit

Technical Users

Admin Portal
UX Toolkit
OBRH Console

CORPORATE | BUSINESS SERVICES | RETAIL

CORPORATE					RETAIL			
Account Services	Corporate Portfolio View	Deposits	Bulk Payments		Originations	Account Services	Term/Recurring Deposits	Payments
Trade Finance	Cash Flow Forecasting	Liquidity Management	Virtual Account Management		Loans	Customer Financial Insights	Account Aggregation	Credit Cards
Cash Management	Supply Chain Finance	Corporate Lending	Corporate Credit		Mutual Funds	Customer 360 View	Wallets	EBPP

COMMON SERVICES

App Tracker	Audit Logging	User Management	Security	Approvals	Touch Points Management	Consent Management	SCA	Service Request
Limits	Personalization	File Uploads	Alerts & Notifications	Multi-Entity	Access Management	Entitlements Management	Multi Modal Engagement	Electronic Documents

Oracle Banking Routing Hub — Host Integrations

Collaborative Integrations

Digital Engagement	Branch Services	Originations	Lending Process	Credit Facilities Process	Trade Process	Revenue Management and Billing	Document Management Systems	Wallet
Product Processor	CASA and Deposits	Lending	Payments	Treasury	Limits	Collateral Mgmt.	Cash Management	Liquidity

Virtual Accounts	Trade Finance	Supply Chain Finance	Cards	AML

Oracle banking architecture hallmarks

Design Studio - Integrate experiences to Oracle's mid-office, product processors and third parties
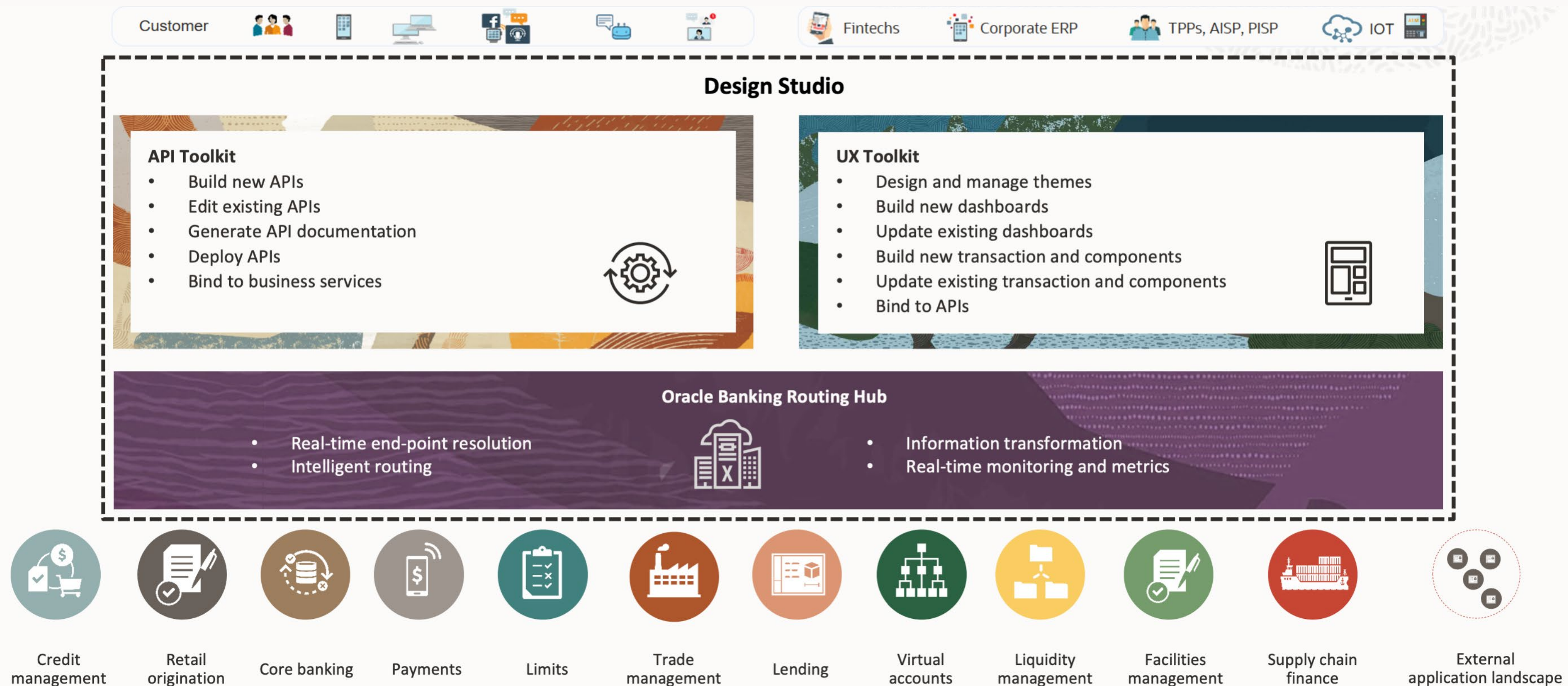
Oracle banking architecture hallmarks

Hallmark 2: Domain-driven design and modular platform

This approach makes the architecture easier to maintain while delivering non-invasive extensibility, high resilience, and independent scalability. It is key to enabling the in-house innovation that is so critical for achieving the potential of the Bank 4.X era.

Oracle banking architecture hallmarks

Hallmark 3: Opti-channel experience, personalization, and development in the API economy

Support service delivery and engagement on the right channel at the right time for a frictionless, and context-driven experience.

- Open API is ready for Open Banking and more
- Open-source technology, including Apache 2.0, is proven and has the power to unlock innovation
- The highest level mobile and Internet security simplify compliance
- Flexibility to align to third-party application development unleashes new potential
- Support for cross-channel transactions enables customers to begin a transaction in one channel and finish it in another—securely and seamlessly

Open APIs

- Ready for Open Banking
- Banking and marketplace
- Berlin Group Standards
- CMA UK Open Banking

Open Source Tech

- Apache 2.0—Proven, state-of-the-art, unlocking innovation
- Highest-level mobile (and internet) security—Oracle Software Security Assurance (OSSA)

Flexibility to Align to Third-party AppDev

- Responsive and adaptive digital user interface
- Use your own AppDev for native mobility

Cross-channel Transactions

- Start a transaction in one channel and finish in another
- Live multi-modal interactive support

Oracle banking architecture hallmarks

Hallmark 4: Embedding intelligence—turning system of records into a system of insight and innovation

Data is your most powerful competitive differentiator, but only if you can fully operationalize and monetize it. Oracle's digital banking platform offers ready-to-deploy dashboards with widgets that deliver real-time insight into a customer's portfolio. In addition, machine learning, artificial intelligence, natural language processing, and more are all key to orchestrating and embedding big data into every business process. And, Oracle's architecture and banking platform support all these emerging technologies and the ones to come.

Oracle banking architecture hallmarks

Hallmark 5: Ready for the cloud

Today, cloud is often the default infrastructure option for digital transformation. Even in geographies without much public cloud footprint, organizations are looking at private clouds or non-regional multi-cloud/hybrid cloud. In thinking about public versus private and when to leverage each—it's important to distinguish commodity processes from your "secret sauce" that drives market differentiation and locate those functions accordingly.

Cloud is not just a technology choice; it is redefining the business model of banking moving forward. Cloud poses its own unique design decisions, including scaling, containerization, platform technologies, and risk and business continuity. As you work through these decisions, the most important point to remember is that your enterprise cloud strategy should follow the bank's digital transformation strategy, not the other way around.

Oracle's digital banking platform supports SaaS, PaaS, and IaaS cloud models to bridge innovation with business value and the investments you make today with the change needed for tomorrow.

Solutions at work:
Modernizing customer experience by upgrading to Oracle Cloud

State Finance Department

Goals

- Newer, fresher approach to transforming the customer and employee experience
- Unified and consistent experience across multi-channel

Challenges

- Customer's IT team was experiencing a generational shift, and the new staff was not familiar with the previous deployments
- COVID-19 pandemic hampered the implementation process
- Multiple government customers, partners, and internal Oracle stakeholders had to operate remotely

Success

- Annually process more than 25 million checks issued by the agencies, an average of 100,000 checks per business day, peaking at 250,000 on some days
- Cloud technology enables the customer to reap the benefits of lower costs and minimal IT staff allocation
- Disaster recovery switchover time reduced by 75%
- Offers the department in-depth functionality, scale, resilience, and cost-efficiency

Get started today

As you craft your blueprint for success in the era of Banking 4.X, Oracle and its innovative banking platform—which delivers both a workshop and the tools you need to build extraordinary experiences—can help you achieve both short-term wins and long-term strategy success.

Find out how we can help you secure your position as the center of your customers' financial universe.

Connect with us

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