

Accenture Banking Services

A new digital IT blueprint for the Everyday Bank



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The world of banking is in upheaval. Disruptive moves from traditional and non-financial services players to offer new innovative services (think the likes of Square, Alibaba, CrowdMortgage and nutmeg) are threatening up to one-third of future banking revenues. Still, it's more than that. It's an entire shift, driven by digital capabilities, of how, when, where and from whom customers bank. Bank customers are rapidly adopting digital banking, and banks are investing in their channel capabilities. However, it is an open question if banks can move fast enough to keep up with customer expectations—both for banks and how they interact with other service providers. For example, 27 percent of nearly 4,000 North American retail banking customers Accenture surveyed would consider a branchless digital bank if they were to switch from their current bank.¹ Nearly half would likely bank with a company they currently do business with but that does not currently offer banking services.²

Digital banking is an option that banks simply can't ignore.

Getting there—integrating digital and physical channels within new operating models—won't be easy, particularly when aging legacy and highly-entangled systems stand in the way. Success requires a new perspective on and a new blueprint for the information technology (IT) environment—one that guides banks toward agile, digital, legacy-light and dynamic IT. In this paper, Accenture offers such a blueprint and recommends phases for how banks can best implement it, maximizing the speed-versus-efficiency trade-off.

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Everyday Bank: The digital bank of the future

There's no need for the digital revolution to be a doomsday omen for banks. Banks can turn the digital disruption to their advantage by drawing on their top assets of trust, knowledge and vast customer and transaction data to become a central part of customers' daily interaction through a strategic model Accenture calls the Everyday Bank.

At the center of the Everyday Bank is customer engagement, any and everywhere, as part of a new, broader customer ecosystem of providers. Within the ecosystem, the bank assumes three distinct, digitally-powered roles (figure 1):

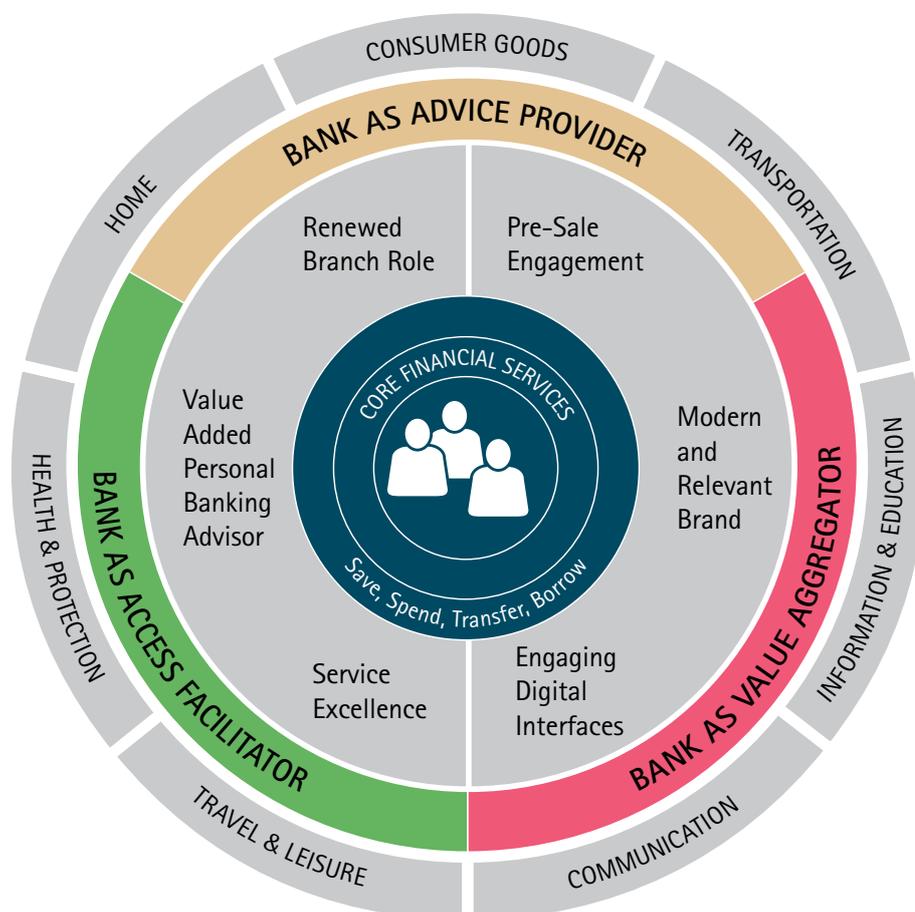
- **Advice Provider:** recommending specific, targeted buying suggestions
- **Access Facilitator:** to financial services and non-financial services partners
- **Value Aggregator:** through real-time, dynamically-priced offerings

Becoming an Everyday Bank raises the level of banking resilience, security and cost efficiency from the traditional to the digital world—a world where many banks are already reporting that the majority of their customer interactions come through digital channels, and global mobile payment transaction volume alone is forecasted to triple from now to 2017.³

An Everyday Bank can expect five to 10 times the level of customer interactions than that in traditional banking, and conversion rates grow from today's typical two percent to six percent, thanks to real-time analytics.⁴ Based on Accenture research, a gap of at least 50 percentage points in operating income is expected between banks that become an Everyday Bank and those that do not.⁵ The digital revolution offers a huge, future-proofing opportunity for banks to satisfy changing customer demands, protect their turf, expand their footprint and grow business—if they are ready to fully exploit it.

However, thriving in the digital world places new requirements on technology—ranging from managing infrastructure and demand on networks, to increasing flexibility and automation, to using data as a strategic asset and winning the cyber-security battle. IT plays a significant and foundational role in whether or not banks will succeed. More than just vital to increasing customer interaction and engagement, IT foundations that deliver the digital experience will reduce back-office effort by up to 80 percent, decrease application complexity (shrinking the application portfolio by up to 70 percent) and speed time-to-market up to 50 percent.

FIGURE 1. The Everyday Bank



Why banks' IT must change

IT in banking, one of the most IT-intensive industries, will need to draw on today's more mature and reliable technologies (from cloud and analytics to wearable devices and biometrics) to enable banks' transition to the Everyday Bank, ignite growth and unlock new market opportunities. Traditional IT stacks—governance, applications, architectures, infrastructures and security—must adapt to be:

- **Digitally Connected:** able to operate across all customer omni-channel touch points with a coherent and consistent experience.
- **Open Architecture:** orchestrating multiple suppliers and bank systems to provide services through the bank and partners.
- **Analytically Strong:** using data as a strategic asset to manage customer relationships and the enterprise.
- **Always On:** ability to operate 24/7 services through transactional factories.
- **Agile:** Decoupling business process, applications and platforms to enable legacy and fast delivery of new digital products.

Besides the technology itself, banks should also expect to make significant advances around their IT sourcing strategy, organizational structure, workforce enablement and ability to collaborate with business stakeholders to deliver value to the bank.

Owing to the complexity of banking IT and the right-now availability of enabling technology, the IT transformation journey to the Everyday Bank will unfold in two waves that occur at two different speeds:

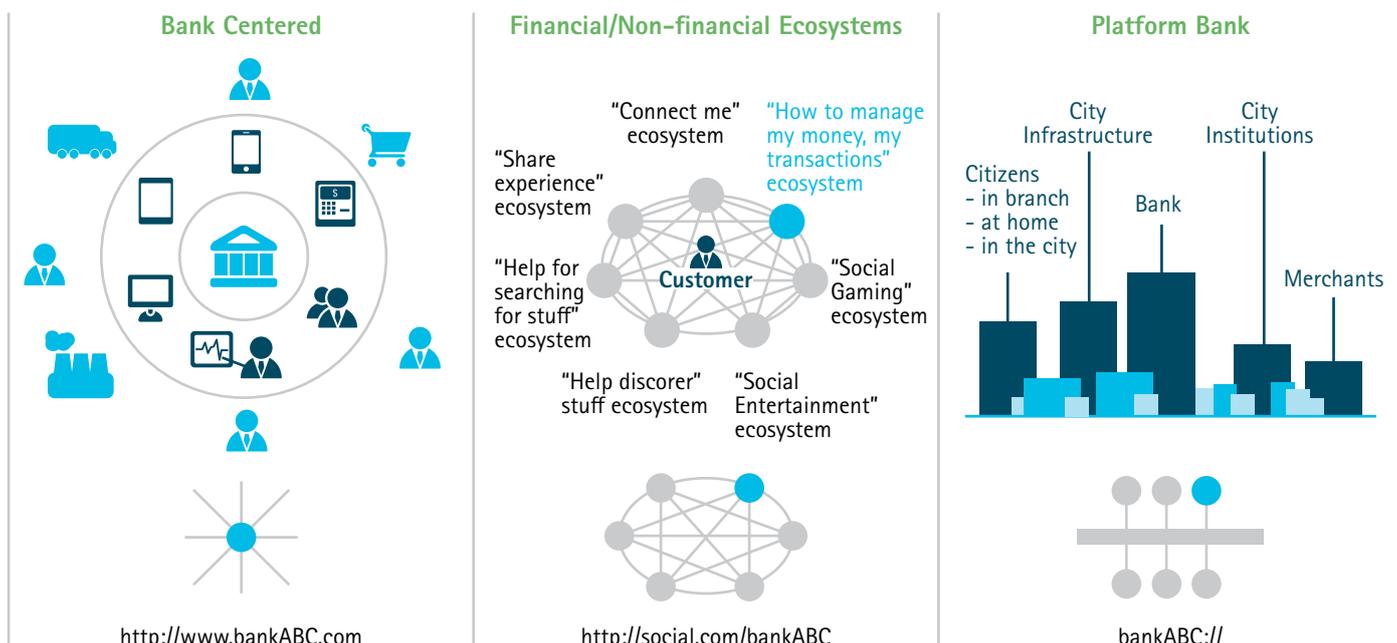
- **Gradual evolution** of core capabilities toward omni-channel with modernization of the overall banking architecture from core systems to data management, unleashing the full potential of a digital, paperless, simple and customer-centered banking experience. In this wave, banks create core banking as a digitally-fit, analytics-strong engine for personalized everyday interactions with data as the core and modernization to cloud.

- **Rapid "Copernican revolution"** with a more radical adoption of unconventional technologies and architectures (such as new digital products, public cloud services, non-banking digital ecosystems and so forth), similar to what is occurring outside of the banking world. In this wave, banks erect any-to-any, cloud-enabled and zero back office platforms, conceptually becoming core banking-free.

Banks will need to manage both waves of the journey at the same time, preferably without duplication, guiding IT to converge into a new, ideal blueprint for the digital world.

While there are numerous paths to take in transitioning to the Everyday Bank vision, Accenture expects banks to evolve primarily through three key models: Bank Centered, Financial/Non-financial Ecosystems and Platform Bank (figure 2).

FIGURE 2. Three ways banks might evolve to the Everyday Bank



In the **Bank Centered** model, banks extend and distribute their traditional products into new channels. Here, they optimize the branch network—fewer branches, smaller branches, advice-focused, fully integrated with other channels and so forth—while offering a digitally-engaging platform to multiply customer interactions and acquisition rates. Existing IT capabilities evolve organically in alignment with a purely banking context, supporting growth through the omni-channel approach and optimizing processes (for example, paperless, straight through processing and so forth) to improve customer service costs and quality.

The **Financial/Non-financial Ecosystems** model calls for banks to become more integrated with and socially engaging around non-banking situations to meet customer needs. At the same time, banks expand the value chain in search of new profit pools and treat each customer transaction as an opportunity to engage the customer. The resulting ecosystems provide additional information on customers' needs, location and habits, and offer interaction beyond the traditional banking context. Banks no longer create or need "walled gardens" to secure engagement of customers only on their terms; they bring value serving as managers of customers' "money ecosystems". Also, IT capabilities evolve beyond "omni-channel", enabling open access and connection with digital ecosystems (for example, digital marketplaces and social media), where all players offer integrated propositions and a better social experience to vie for customer attention.

Lastly, the **Platform Bank** model that is connected to specific ecosystems, such as citizens or emerging digital device ecosystems, to enable seamless customer interaction with those environments. It represents the most innovative, advanced scenario. The lines connecting players in the situation-specific ecosystem are blurred and seamless for the customer, opening up opportunities for digital interaction with customers in completely new contexts. For example, banks can develop new services using home/building automation, connected cars or wearable devices to address customers' new needs for protection, mobility, health and entertainment. It expands banks' product portfolio to non-banking services while multiplying the opportunity to integrate their core products into non-banking contexts. This requires the most changes to banks' IT environment. The infrastructure for this model easily integrates with other players and enables new ecosystems where third parties connect through standard integration paradigms (API) and agile development environments (SDK) to best manage the value of the digital ecosystem to customers. The infrastructure also taps into a data-driven platform, taking full advantage of the power of Big Data analytics to gain insight on unlimited amounts of data in real time.

Digital IT blueprint glossary: Defining the new banking IT view

The new digital banking IT platform represents a paradigm shift for most banks. Along with new technologies, it means a new way to think, talk about and build the future IT environment—starting with clear, digital-relevant definitions of old and new terms. Below—and throughout this document—we've defined a few (non-exhaustive).

XAAS

Everything as a service—software (SAAS), infrastructure (IAAS), platforms (PAAS)—will help standardize commodities, reduce time to market for developments and shift the cost base from fixed to variable.

Agile

Fast prototyping with joint business and IT cooperation to speed up development processes and improve time to market.

APIs

Standard interfaces to enable the Everyday Bank to be open and connect with an ecosystem of partners in a bi-directional way. Banks can bundle their financial service within partners' channels and touch points, or incorporate non-financial services within their own offerings.

Architecture

The "new normal" for digital evolution of the information systems, it represents the most important capability to evolve and build upon. It should embed all of the enabling components of digital IT (see "A new digital IT Blueprint for Banks" section in this paper).

A new digital IT blueprint for banks

Considering the technology implications and requirements of the Everyday Bank, Accenture conceptualized a new, structured digital IT blueprint for banking shown in figure 3.

The eight components comprising the new blueprint work together to help banks exploit digital wisely to become central in customers' everyday life. In essence, they blur the lines between digital and physical interactions in the customer experience, connect and hyper-scale resources at the point of need and architect resilience through a solid and secure infrastructure. Here are the eight components:

- **Omni-channel Front-End:** Product and services are accessible through all channels and touch points, while the customer experience is coherent and seamless across channels and throughout the sales cycle (pre-sale, sale and post-sale).
- **APIs:** Foundation API elements are used to open the bank to the external digital world. Distribution partners can access bank product and service components through a library of APIs, and external partners (such as merchants, experts

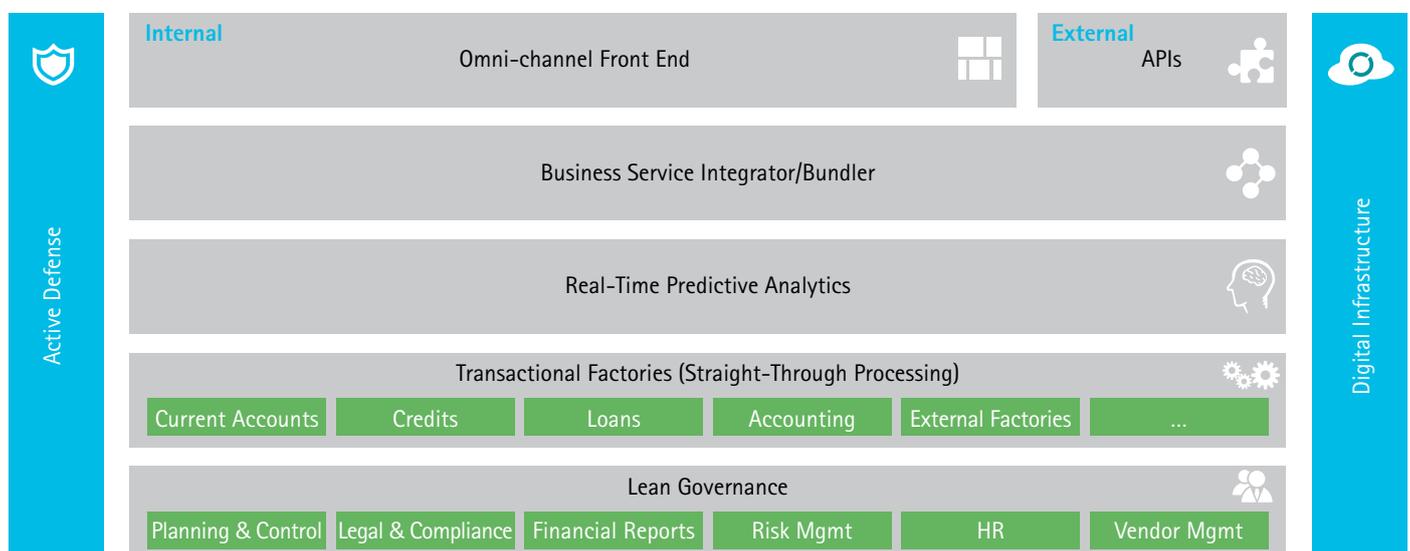
and so forth) can bundle their offerings with banks' transactional services to increase value to the customer.

- **Business Service Integrator/Bundler:** Simple and vertical transactional services are seamlessly orchestrated, bundled and profiled by business integrator components that contain most of the business logic needed to build products and services then deliver them through the omni-channel stack or open APIs.
- **Real-Time Predictive Analytics:** Analytics—one unique layer that stores central data—serves as the foundation for understanding the customer's need and its context, and managing all risks and their corresponding pricing. It lies close to front-end capabilities to support online dynamic interaction with customers.
- **Transactional Factories (Straight-Through Processing):** Flexible, "zero batch" product and transactional factories that provide the building blocks to create composite services provided by the bank or by third parties, and perform complex calculations in real time. Depending on the specific situation of a customer's interaction, a bank can assemble

context-relevant services (offerings, advice and so forth) in real time as "instant everything," for example, instant payments, instant credit scoring, instant account opening and so forth. (For more insights on transactional factory concept in banking, read the Accenture Banking report "The Role of Core in Digital Adoption.")

- **Lean Governance:** Simple and homogeneous control, using market-standard "as a service" offerings in commoditized areas.
- **Active Defense:** Sophisticated data and analytics-driven information security tools help shift the bank's security emphasis from monitoring to understanding to taking preemptive action, both protecting and enabling the business.
- **Digital Infrastructure:** Hybrid "public/group" cloud technologies not only advance infrastructure management and improve the cost of the IT infrastructure, they also integrate external services and provide innovative solutions to end customers ("to be the cloud").

FIGURE 3. IT blueprint for the Everyday Bank



Within the new digital IT blueprint, the eight components should be built with four bold characteristics in mind:

- **Fast prototyping within the flexible front-end**, providing for a coherent and advanced customer experience across every channel using responsive front-end components based on HTML5 or a mobile-specific paradigm; smooth integration between portal server component and content management systems and simplified integration with external systems to provide data and services to business partners (such as Bancassurance and aggregators) using an API-based approach.
- **Introduction of digital enablers**, including analytics on internal (bank-owned data) and external data (digital footprint, social listening, multichannel contact-history, telematics, big data and so forth); enhanced collaboration between bank and customers; paperless and innovative payment solutions; context-based business process; and *tech-based* initiatives.

- **Decoupled legacies** as part of transactional factories that support multichannel process management (through orchestration of services provided by existing systems) and parametric processes (driven by context-based business rules managed through an advanced event engine).
- **Dynamic processes**, fed by real-time predictive analytics and driven by integrated systems, provide services and functionalities aligned with a standardized service catalog; highly-defined common business objects speed up service-oriented integration.

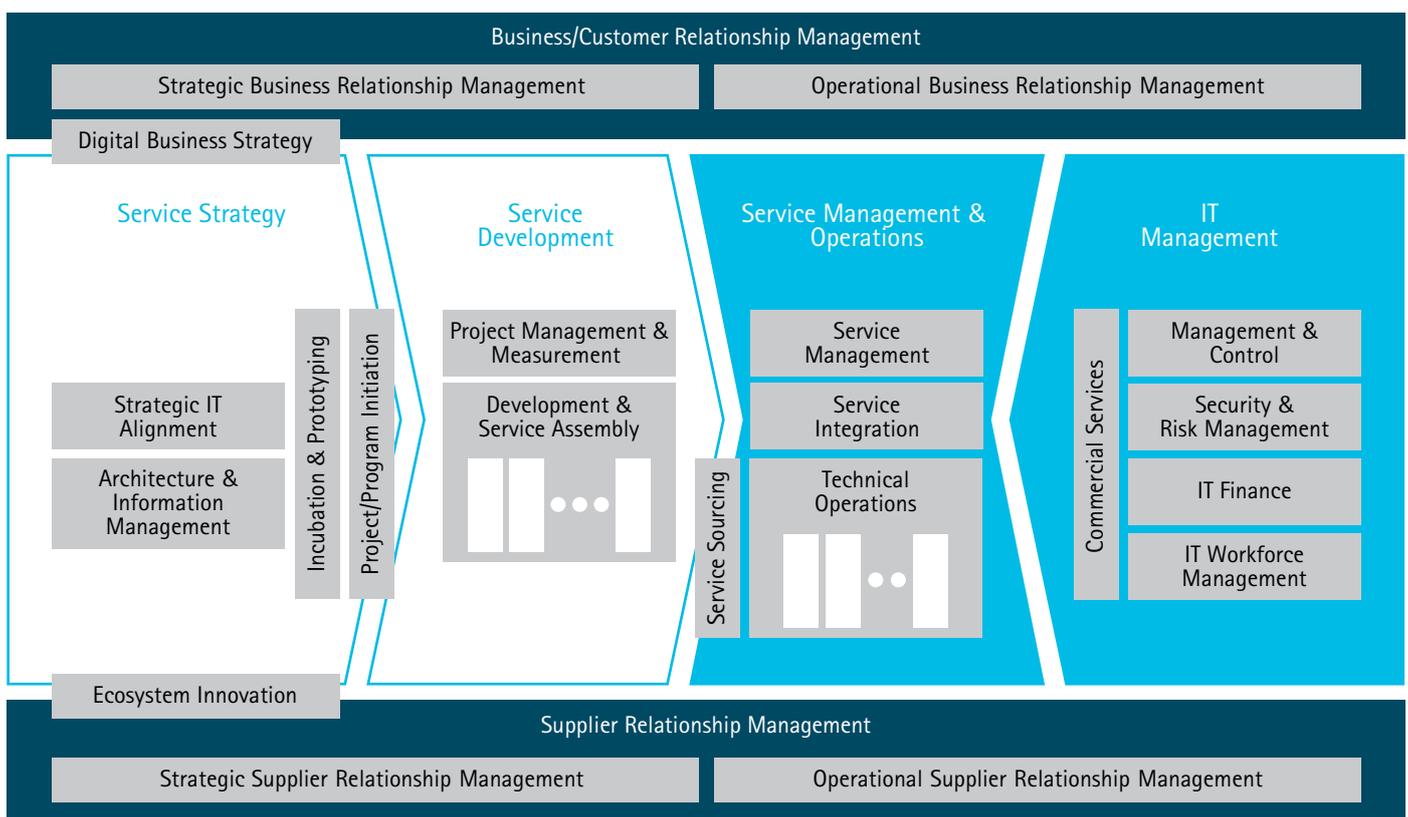
The blueprint components and characteristics sit at the heart of the Everyday Bank's IT environment. Without them, banks will be unable to respond with the speed, scalability and resilience needed to compete with agile, lean newcomers. Moreover, in building the eight blueprint components and achieving their related characteristics, banks will need to answer some additional questions around IT.

One key question: what digital IT operating model will best serve the bank's chosen evolution model? For example, banks will

need to introduce new digital capabilities in a "hybrid IT operating model" (see figure 4) as part of their transition to digital banking. With respect to the traditional "Change vs. Run" and "Demand vs. Supply" IT operating models, hybrids will include a closer link with business users, both in terms of strategic planning and agile delivery (for example, prototyping); a new assembly function to integrate IT capabilities from external/cloud providers; and a continued management of external ecosystems to accelerate innovation and new technology-driven business models.

Legacy improvement is another key inquisition area. What is the smartest path for transitioning from legacy systems to the cloud? How will the bank draw on analytics to evolve its traditional business intelligence to predictive modeling and real-time responsiveness? How will banks infuse agility into the software lifecycle and other areas—removing non-functional activities and using adjustable perimeter and methodologies to accelerate IT development, lower development cost, allow constant learning and enable rapid design and implementation at every customer touch point?

FIGURE 4. Hybrid IT operating model concept



How to get there: The IT reconstruction journey

There are several ways banks can implement the digital banking IT blueprint to enable the Everyday Bank. Some are already being initiated in and outside of the industry. (See "New Digital Banking IT Environments Already Under Construction" sidebar.)

While total renewal of the entire information system at once is an option—a very onerous and expensive one—our experience helping companies innovate their IT environments to become digital businesses shows that a more practical approach is implementing different layers of the blueprint through four journey milestones. As shown in figure 5, banks can:

- First, build "Digital Basics" to enable up-to-date sales and transactional offerings across digital channels

- Second, build out advanced "Pure Digital" capabilities which are only available in digital channels
- Third, integrate new digital channels with transformed physical operations and analytics to drive an "Intelligent Omni-Channel" experience, providing insight-driven sales and service engagement across all customer touchpoints
- Lastly, integrate financial and non-financial services to deliver the Everyday Bank vision to help meet the customer's life needs where ever and how ever they interact with the bank.

Banks can pinpoint where they are likely to be today across the four phases to determine how to proceed forward.

Digital IT blueprint glossary (continued)

Data-driven platform

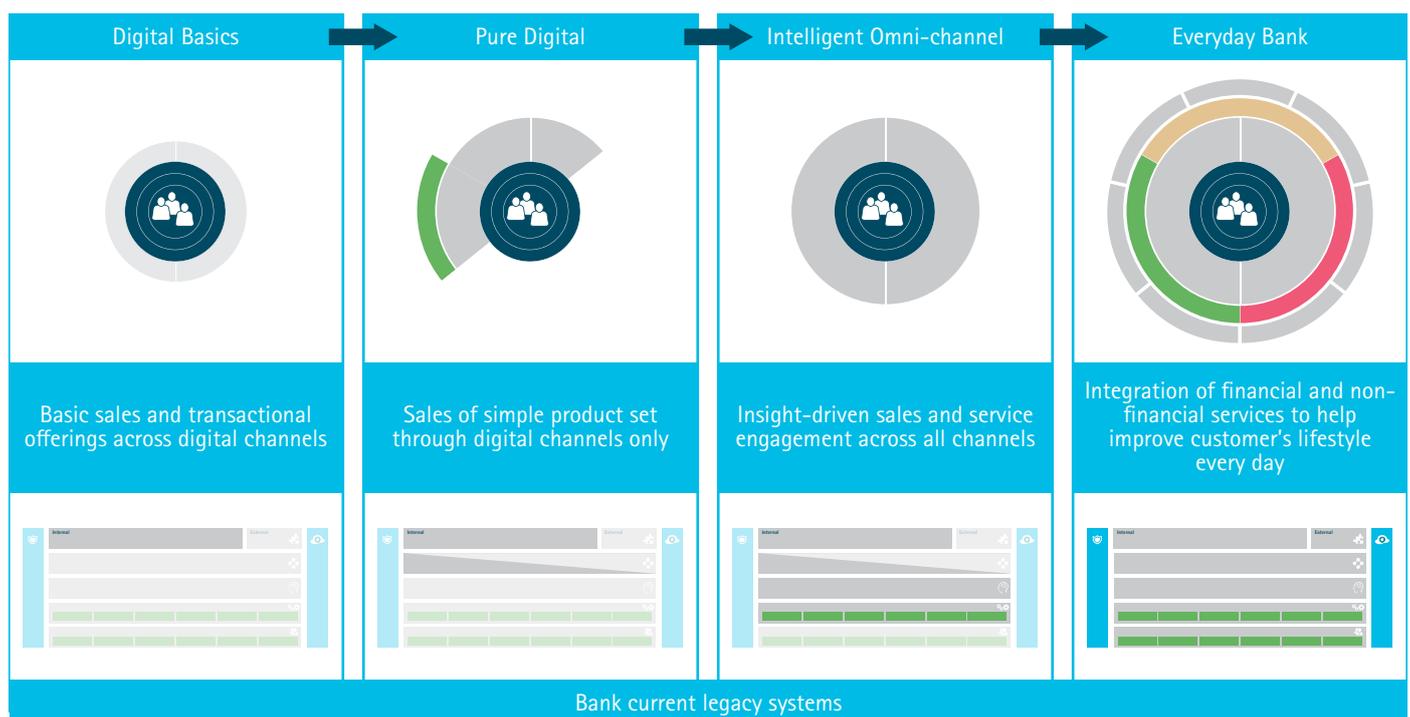
Data is at the core of the Everyday Bank's customer focus and decision processes. IT platforms are designed to enable data collection, storage and real-time analysis to support business decisions at best. No longer is it a matter of data warehouses, data marts or traditional business intelligence, the data supply chain is at the center of the information system.

Ecosystem

An environment of cross-industry partners, connected through a technological platform that enables bundled offerings and multiple interactions with customers. Ecosystem blurs markets, regions, industries and traditional competitive models.

FIGURE 5. Four milestone phases for implementing different layers of the Digital Banking IT Blueprint based on the selected business model

ILLUSTRATIVE



New digital banking IT environments already under construction

Some companies in financial services and other industries are already following the new digital banking IT blueprint to construct their new IT environments.

Blueprint component	What some companies are doing	Journey speed	
		Gradual evolution	Rapid revolution
Omni-channel Front-End	BBVA created Wizzo as a new, simpler and efficient way to make peer-to-peer payments on the Internet or through a mobile wallet.		X
APIs	Sixdots (a joint venture between Belgacom and BNP Paribas Fortis) developed a new platform that enables secure execution of payments and mobile ID which is available to its ecosystem of partners to use in providing ticketing (such as cinema and transportation), couponing, loyalty cards and other mobile wallet functions to Belgian customers.		X
Business Service Integrator/ Bundler	Accenture , as global system integration partner of Expo 2015 in Milan , will provide the Service Delivery Platform to integrate digital services of other Expo partners, enabling the Smart City experience for the anticipated 20 million Expo visitors who are expected to conduct 2.5+ million transactions and 7.5+ million notifications.	X	
Real-Time Predictive Analytics	HANA Bank used predictive analytical models to introduce its online, real-time "One Click Mortgage" tool, establishing "once and done" origination processing, thus helping to reduce exceptions and back office rework.		X
Transactional Factories	mBank built simpler transactional layers into its core banking system to power an entirely new, next-generation online channel for its customers in Poland, the Czech Republic and Slovakia.	X	
Lean Governance	Telefonica Digital , global subsidiary of Telefonica, is working to reduce cost and simplify non-core processes by digitalizing over 120 HR processes supporting some 4,000 employees in 14 countries through a new Software-as-a-service Global HR solution.	X	
Active Defense	Romtelecom , one of the largest telecommunications companies in Eastern Europe, implemented a data loss prevention solution, including Network Monitor, Network Discover and Endpoint Discover and Prevent.	X	
Hybrid Cloud Infrastructure	British Telecom (BT) released a new multi-platform, live streaming and video-on-demand digital service (BT Sport), using cloud solutions to achieve scale quickly and efficiently.		X

Bank-specific situations that factor into the “how to proceed forward” determination (figure 6) include:

- The bank’s **business model**, whether a “traditional” Universal Bank or a digital start up or a combination of both (digital branded platform). A Universal Bank, for example, is likely to evolve gradually by adding new or refreshing old capabilities to make its core systems more flexible, granular and digital-capable.
- The bank’s **starting point and goal point**, whether Bank Centered, Financial/Non-Financial Ecosystem or Platform Bank.
- The **age and complexity of the bank’s current legacy systems**, key factors that determine the extent to which core systems can enable the bank’s ability to provide a digital customer experience.

Those with newer, less complex legacies—such as Pure Digital or Intelligent Omni-Channel—have an advantage in moving to the Everyday Bank.

- **Digital transformation intensity**, indicating the speed and force at which the bank intends to become a digital bank.
- **IT and technology readiness** as the convergence point of a bank’s legacy complexity/aging state and digital transformation intensity, identifying its starting position in the transformation journey.

Digital IT blueprint glossary (continued)

Instant everything

Always-online transactions that exploit the value of “context-based applications” built to interact and satisfy customers’ needs in a specific time, place and situation.

Modernization to cloud

The disruptive process of re-architecting and renewing legacy systems without creating new ones in the future, taking advantage of XAAS as a new concept of architecture, cloud and smart sourcing.

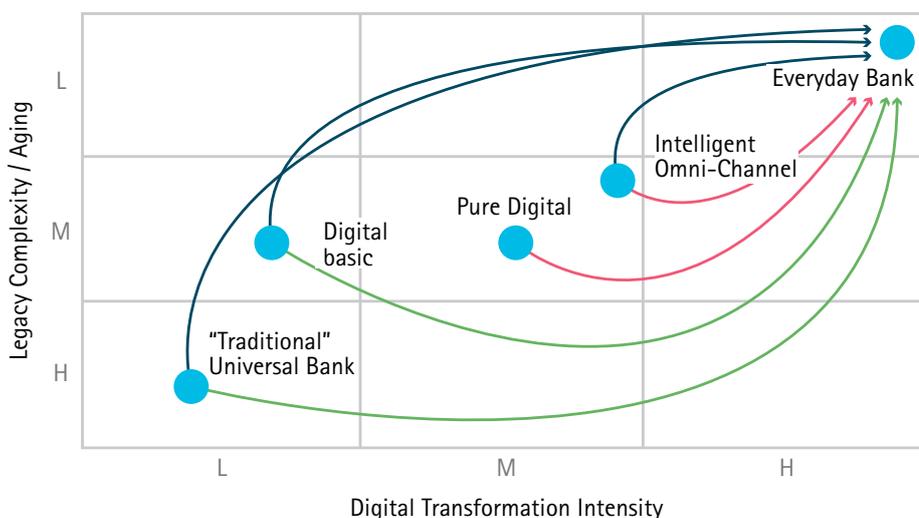
Omni-channel

Product and services are accessible through all channels and at all touch points as part of a seamless, cross-channel customer experience. Moreover, being omni-channel means interacting with new digitally-enabled customer features (such as behavioral configuration of pages, biometric/vocal recognition and unified collaboration) that are constantly supported by on-line analytical functionalities “in front” of the information system.

Zero back-office

Back office traditionally fills gaps between various and vertical applications/processes with manual activities. The digitally-enabled information system brings a new level of integration that makes back office “useless”.

FIGURE 6. Feasible business options and related implementation paths based on IT and technology readiness



Path	Transformation Journey	Task
→	Digital Evolution of Universal Bank	Build digital capabilities by evolving current legacy system
→	Digital Start Up	Create a separate “fully fledged digital bank”, not sharing any IT system with the traditional
→	Digital Branded Platform	Create a digital bank sharing the core banking system and product factories with the parent bank, with an appropriate decoupling layer

There's much to gain

Banks that manage to become an Everyday Bank can deliver a cohesive customer experience—when and where the customer is—while running innovative, agile, secure IT operations with lower cost to serve.

Digital-powered back-office and straight-through processing capabilities, for example, can help reduce back-office effort by 80 percent with the remaining 20 percent focused on post-production activities. Digital-related simplifications can reduce the portfolio of managed applications by 50 to 70 percent (20 to 30 percent from optimizing core applications and becoming adaptive to the customer interaction context while 30 to 40 percent comes from moving all non-core applications into the cloud)—savings which can be used to finance improvements needed in the upper stack. An open IT architecture for any-to-any integration with ecosystem partners provides for on-the-fly deployment of new products, services and processes, and thus improves time-to-market by 40 to 50 percent.

These are just a few of the benefits banks stand to gain in implementing the new digital banking IT blueprint across the enterprise. Those that do, ultimately, will find their place at the center of customer ecosystems, helping customers make critical decisions in their daily life.



Contact us

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NOTES

¹ Accenture North America Consumer Digital Banking Survey, June 2014.

² Accenture North America Consumer Digital Banking Survey, June 2014.

³ Statista.com, 2014.

⁴ Accenture analysis.

⁵ Accenture, The Everyday Bank: How Digital is Revolutionizing Banking and the Customer Ecosystem, 2013.

⁶ Accenture analysis.

ABOUT ACCENTURE

Accenture is a global management consulting, technology services and outsourcing company, with more than 305,000 people serving clients in more than 120 countries. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. The company generated net revenues of US\$30.0 billion for the fiscal year ended Aug. 31, 2014. Its home page is www.accenture.com.

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