



# Mapping a digital future for finance



**Business  
Services**

# Financial sector faces market disruption

**For decades dependent on legacy technology, the banking, financial services and insurance sectors have largely escaped digital upheaval. However this is changing rapidly as financial institutions experience market disruption created by new regulations and new competitors. As a consequence, the financial services market needs to transform or risk becoming irrelevant.**

Digital is disrupting the role, infrastructure and competitive nature of financial institutions. Innovative financial technology (fintechs) have broken into their markets with intuitive, customer-friendly solutions designed from the ground up. Financial digital services have evolved from basic online offers, such as online payments, to deliver a broad set of rich capabilities, such as AI-powered intelligent agents.

Traditional financial institutions are being pushed out of their comfort zone by “big tech”, new fintech players and innovative start-ups. New services such as digital-only banking, online forex transactions platforms and peer-to-peer (P2P) lending are eroding their market share.

In addition, their margins are shrinking, as fintechs can deliver services in many cases at a fraction of the cost. At the same time, banks and insurance companies are under unprecedented financial pressures from the cost of adapting complex legacy IT systems and maintaining large branch networks, while also having to deal with increasing regulatory requirements pushing towards an “open banking” industry.

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**40 percent of banks have not yet executed a sustainable digital transformation strategy.<sup>1</sup>**

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1. IDC, MaturityScape Benchmark: Digital Transformation in Banking Worldwide, 2017



## Preference for digital financial services is now globally pervasive

Customers have had their expectations reset by online retailers and expect a seamless omnichannel experience, quality personalized service and value for money. This makes financial services a prime target for the likes of Amazon.

Consumers expect customized care and personalized digital solutions 24/7 wherever they are. Many still believe financial institutions have a long way to go in living up to their digital needs, and are looking at alternative digital banking providers.

Financial institutions, however, retain a head start in the digital race. They have been capturing and processing data for a long time. They have a license from the regulator, the customers' trust and a branch network. The big challenge they face is digitizing their infrastructures from end-to-end to innovate and compete in the digitally connected world in which we live.

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**Only 68 percent of insurers say they have taken steps to address the rise of fintechs in insurance.<sup>2</sup>**

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2. PwC, Global InsurTech Report, 2016



# Consumers driving change in financial services

**There has been a sea change in customer behavior that financial institutions need to take on board. Consumers are used to the speed and convenience of online retail. They are used to making transactions on the go and having a seamless omnichannel experience – and they expect the same from their banks and insurance companies. Millennials are leading the charge with 86 percent now using digital payments alone.<sup>3</sup>**

Adapting to changing customer trends is imperative for financial institutions to retain and grow their customer base, remain competitive and stay at the cutting edge of digital finance.

## Financial institutions need deeper customer insight to remain relevant

Financial institutions have a wealth of data, but they need to use data analytics, machine learning and artificial intelligence (AI) to gain a deeper insight into their customers. This will allow them to spot trends and reach out to new potential customers, while retaining current ones.

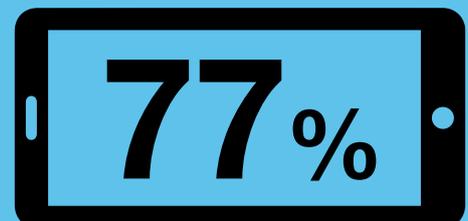
Consumers today expect intuitive design, personalization, ease of use, real-time information and a seamless user experience across all channels. Financial institutions are unable to achieve this without truly understanding their data. This is where fintechs are winning ground, because they have built their strategies and IT systems around the customer data journey, allowing them to use data more effectively to understand, innovate and engage consumers.

## Customers want choice

Customers demand choice in how they deal with their service providers. While omnichannel is considered the gold standard, there is a rapid rise of a new segment called “omni-digital”. According to PwC<sup>4</sup>, 46 percent of consumers only use digital channels on mobile devices, laptops and PCs to communicate with financial institutions, and prefer not to use bricks and mortar branches or call centers at all. Omni-digital isn’t a one size fits all – financial institutions will need to carefully consider how they can make solutions easy to use and offer products that are personally relevant to customers.

## The dynamics of banking are in flux

The way people look after their finances is going through an enormous transformation. Smartphones have opened financial services to previously unbanked people. Sub-Saharan Africa accounts for nearly a tenth of the global mobile subscriber base, and most of these use mobile money. Orange Money, launched a decade ago, has 31 million users across 17 countries, with the bulk of these in Africa<sup>5</sup>. In 2017 Orange Money transacted over 2 billion Euro in money transfers per month.



**of Europeans now use mobile devices to keep track of their finances and make every day payments.<sup>6</sup>**

3. Visa, Annual Digital Payments Study, 2017

4. PwC, Digital Banking Consumer Survey: Mobile Users Set The Agenda, 2018

5. GSMA, The Mobile Economy: Sub-Saharan Africa, 2017

6. Visa, Annual Digital Payments Study, 2017

# APIs and cloud: linking the old with the new

**Traditional financial institutions rely on huge legacy systems in which they have invested time and money over decades. They have been able to carry out processing efficiently, but the systems have become a massive barrier to digital transformation when customers want to have their information in real-time.**

Financial institutions have a wealth of unlocked data in their possession that is full of valuable insight, but integrating, releasing and using it depends on their ability to digitally transform.

The financial sector doesn't have the budget to rip everything out and start again, and dismantling existing systems is a risky activity. Financial institutions typically have hundreds of applications and thousands of databases and shutting one off will have a major unintended impact on another part of the business.

Some sub-segments have adopted new technologies, such as insurance with pay-per-drive telematics offers. But nearly all financial institutions face the challenge of inflexible legacy systems and a culture resistant to change.

Given how embedded operations are in these legacy systems, financial institutions are increasingly looking outside of the box to plug digital platforms and services into their infrastructure. Application programming interfaces (API) are a crucial mechanism here, enabling them to transform their legacy systems, while making themselves more agile.

## APIs: the way forward

APIs provide a way for financial institutions to create modular and flexible platforms to enhance offerings, lower costs and make regulatory compliance easier. As well as speeding up new functionality internally, they can provide customer-facing capabilities. Partner APIs enable financial institutions to work with specific third-parties (fintech and otherwise), accessing specific expertise to launch new channels, or offering partner solutions thru the banks mobile portal, for example.

In addition, an increasing number of organizations are publishing open APIs. The European Banking Authority's Payments Services Directive (PSD2), for example, mandates a new-found openness for European financial institutions. Under this directive, banks must give access to account information and payment initiation to regulated third parties. Financial institutions have an opportunity to link up with third party providers to monetize services and create mutual beneficial relationships that will attract, retain and benefit customers.



## Keeping it in the cloud

According to market research firm IDC, cloud technology is fundamental in financial institutions' digital transformation, with around two thirds of them expected to be using cloud services in a major way during 2018. Crucially, cloud gives financial institutions the ability to scale services far faster than they ever could with legacy systems.

However, moving to the cloud poses two major challenges for financial institutions: security together with regulatory compliance. Financial institutions need to select the right cloud service, deployment and operations models to best address these. With the support of the regulator, it is here that banks worldwide are launching PaaS and SaaS partnerships to gain hands-on experience on future cloud topologies vis-à-vis existing legacy systems.

7. IDC FutureScape, Worldwide Financial Services 2017 Predictions  
8. IDC FutureScape, Worldwide Financial Services 2018 Predictions



**The biggest global banks will save \$15 billion by 2019 from cloud adoption, slashing technology infrastructure costs by 25 percent.<sup>7</sup>**

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**By the end of 2018, 50 percent of global tier 1 and tier 2 banks will offer at least five external APIs.<sup>8</sup>**

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# Collaboration technology supports new ways of working

**Collaboration both inside and outside financial institutions is key to their success – nurturing innovation, reducing costs, improving customer satisfaction, enhancing productivity, optimizing workflows and attracting new talent.**

To succeed in the new digital age, banks need to move away from their siloed model with hundreds of subsidiaries operating quasi-independently. They need to adopt an inclusive way of working using a secure digital workspace not only in the office, but on the move. This empowers workers to connect to the people and resources they need to add business value. Collaboration tools should also engage employees, which is essential to get critical buy-in for the digital transformation process.

## Enhance customer relations

Today's customers expect a fast, informed response and personalized attention when it comes to their finances. Innovation in collaboration is a way for financial institutions to differentiate themselves. For example, some banks are exploring using mobile video banking to build customer trust and loyalty by combining mobile video chat with real-time document collaboration. This allows customers to conduct most of their banking requirements from personal mobile devices.

## Foster teamwork & engage employees

Digital technologies are changing the workplace. Today's employees want intuitive tools with familiar interfaces. Digital workspaces need to be agile spaces that create an empowered and productive workforce. Technology needs to be as functional and fulfilling as it is outside the workplace.

In the next ten years, millennials will make up over half the workforce, and financial institutions need the right technology in place to hire and retain them. Millennials have grown up with a changing technological landscape and want the latest technology at work. They are fast adopters of new platforms and highly reliant on social media. Employee communication apps, for example, are one technology that would appeal to them.

## Collaborate to succeed

In addition, secure video conferencing and collaboration tools enable teams to securely work together on projects with co-workers and clients from any location. This improves workflow and decision making, and accommodates virtual training, webinars and virtual meetings, amongst other benefits. End-to-end data encryption in solutions such as Cisco Webex ensures work is kept safe.

For example, financial institutions can use collaborative workspaces such as Jive as an internal communications tool to share knowledge and keep track on what is happening in the organization. This will help encourage team discussion and give everyone visibility, supporting an agile culture.

Unified communications systems can also manage high-intensity trades, for example, increasing efficiencies and business turnaround. Traders can pick out important incoming calls and the system records and stores calls in the cloud to satisfy risk and compliance requirements.

Financial institutions, however, need to make sure they have the right integration strategy to ensure all these tools function efficiently together.

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**“To be successful, a digital workspace can't be built in a vacuum. It must be part of a wider business strategy that seeks to boost employee agility and engagement by developing a more consumerized work environment.”<sup>9</sup>**

**Carol Rozwell, vice president and distinguished analyst at Gartner.**

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# Security: combatting cyber threats requires clear focus

**The more connected financial institutions become the greater the challenge for security. Financial institutions, by their very nature, are a target for cybercriminals who are becoming more professional and sophisticated in their attacks.**

Cybercriminals are already using mobile malware to find their way into financial apps. It won't be long until we will see a new wave of cyber-attacks powered by AI. In addition, financial institutions are facing new security challenges by way of digitization, moving to the cloud, and opening their ecosystem to third parties. Anticipating various threats by investing in end-to-end security and further detection capabilities are now more critical than ever for financial institutions.

## Growing regulation requirements

Regulations are also on the increase and these will have an impact on security for financial institutions. In Europe, there is the General Data Protection Regulation (GDPR), the Directive on Security of network and information systems (NIS) and the Payments Services Directive (PSD2). Their different demands can make security even more of a challenge. For example, PSD2 opens banking information to third parties, while GDPR applies rigorous rules to protecting customer data.

Financial institutions need to continually ensure their security policies are in line with changing regulations. If they are in the cloud, they need to find a provider who can provide dedicated and cybersecure financial clouds that satisfy security, regulation and compliancy requirements. This includes a thorough understanding of local data protection laws.

## Switch from protection to prevention

In a bid to further shore up their cyberdefenses, financial institutions will need to look beyond their perimeter and invest in digital capabilities for detection, response and remediation that project a reactive posture to security.

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**The average cost of cybercrime for financial services companies globally is \$18.28 million per firm.<sup>10</sup>**

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**By 2020, 25 percent of banks will use micro-location for enhanced security through a combination of RFID and beacons to satisfy multifactor authentication and know your customer (KYC) guidance.<sup>11</sup>**

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An organization's security posture indicates how robustly they are equipped to avoid, detect and repel cyber threats, based on current security infrastructures and practices. Given ever bolder cyber-crimes, a major review of security posture is now imperative.

A proactive defense posture drives chances of success against cybercriminals and is intelligence led, driven by comprehensive cybersecurity assessments. It uses cyber-threat intelligence feeds working with real-time network monitoring to develop a detailed picture of the whole security landscape and how threats can be manifested and exploited.

AI and machine learning tools are also available to detect fraud, identity theft and flag up suspicious use of credit cards or bank accounts in real time. Technology such as graph databases can join the dots in data to spot actual insurance fraud. The use of these technologies will accelerate.

Open banking will revolutionize banking, enabling banks to partner with other companies using open APIs to provide services. The business opportunities are enormous, but security is paramount to make it a success.

# Innovative technologies that will shape the future of finance

**Technology as we know does not stand still. Already there are new technologies on the horizon that will shape the future of financial institutions.**

We have identified five technology areas that promise to transform the financial services industry.

## 1. The evolution of chatbots

The power of virtual assistants is moving beyond simple transactions to advising customers. AI-enabled chatbots tick several boxes for financial institutions. They are easy to use, don't need to be installed and can engage customers in personalized one-on-one conversations. They can also be trained to understand a customer's needs. For example, Bank of America's Erica chatbot uses a combination of AI, predictive analytics and cognitive messaging to allow customers to check balances and get bill payment reminders. Future chatbots will support more sophisticated digital customer interactions.

## 2. Blockchain goes mainstream

Blockchain, originally linked to cryptocurrencies, is a combination of distributed database and cryptography technology that enables multiple users to simultaneously access a continually updated digital ledger that can't be altered. It has potential for any number of uses in financial institutions, including recording securities, storing customer identities and smart contracts. Share trading could also benefit from greater trade accuracy and shorter settlement. The Royal Bank of Canada is experimenting with blockchain on payments between the US and Canada to reduce complexity and lower costs.



### 3. AI & machine learning

Financial institutions have been quick to recognize the potential of AI and machine learning in their business. AI will enable banks to be more flexible to customer needs, including problem solving and decision making. JPMorgan Chase, for example, has developed a proprietary machine learning algorithm it uses to analyze documents and extract key data. The bank claims it can process 12,000 credit agreements in seconds instead of 360,000-man hours. In insurance, trackable AI can analyze photos of vehicles after an accident to see if they are repairable or not and accurately send the claim for appraisal.

### 4. Individual identity

As cyberattacks grow, financial institutions are looking to advanced authentication to protect customers in the form of biometrics. Fingerprint, iris and facial recognition solutions will become the norm. Financial institutions are also looking to use a combination of biometric identifiers in their fight against fraud. Visa and Mastercard for example are looking to replace PIN numbers with fingerprint biometrics. First Bank National in South Africa is trialing a biometrics ATM, matching user fingerprints with data the bank holds. As part of inclusion for all, Bangladesh Bank has issued guidelines for scheduled banks to provide biometric verification to better serve clients who are unable to read.

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**By 2019, 40 percent of all digital transformation initiatives will use AI. By 2021, over 90 percent of consumers will interact with customer support bots.<sup>12</sup>**

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### 5. Robot process automation

Robot process automation (RPA) is software that can capture and interpret existing applications for transaction processing and data manipulation, while triggering responses and communicating with other digital systems. RPAs increase efficiencies as bots are both scalable and operational 24/7. In addition, they can reduce operational errors, increase customer satisfaction due to faster turn around and take over repetitive manual tasks from humans – which all have a positive impact on the bottom line. For example, RPAs are being used in wealth management to create robo-advisors that offer high-quality automated advice, while providing wealth managers with real-time information.

12. IDC FutureScape, Worldwide IT Industry 2018 Predictions

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**Financial institutions must embrace change and digitization, serving customers where, when and how they want, and open their arms to partnerships with third parties if they are to survive in an industry on the cusp of major disruption.**

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# Orange Business Services: trusted advisor for digital transformation in financial services

**Successful digital transformation in the financial services industry revolves around four pillars: innovation-on-demand, channel-as-a-strategy, banking-as-a-platform and network-as-a-service.**

Orange Business Services provides in-depth industry expertise and technology leadership across these four pillars, namely:

## 1. Innovation-on-demand

A new paradigm where financial institutions are pro-actively partnering with start-ups and technology partners to insource digital innovation capabilities. With its global labs and start-up incubators, Orange is already supporting numerous banks worldwide, creating agility to take advantage of new digital opportunities and business models.

## 2. Channel-as-a-strategy

An operating model that allows banks and insurance companies to differentiate between direct and indirect channel strategies. Orange as a digital company is supporting billions of digital interactions per year. We have launched API libraries, and can design, build and support the various digital banking channels. This simplifies business operations for customers, employees and the internet of things.

## 3. Banking-as-a-platform

These solutions will enable banks to create API-driven infrastructures and architectures where legacy systems and cloud-based systems co-exist, allowing for gradual IT transformation to meet the digital challenges head on. Orange as a global cloud partner provides Infrastructure-as-a-Service, Platform-as-a-Service and Software-as-a-Service banking solutions.

## 4. Network-as-a-service

This will increase the cost-effectiveness, bandwidth flexibility, application-visibility and cybersecurity of all the applications in a hybrid network-environment. As a network operator, Orange is providing compliance by design and protection and mitigation against cyber threats.

Financial institutions need to work with a partner they can trust, who fully understands this complex environment, to successfully digitize. At Orange Business Services, we understand the multiple dynamics and changing disruptions across the financial services industry. Our solutions have been designed to increase productivity, advance innovation and optimize the customer experience.

**For more information on services available for the finance industry visit: <https://www.orange-business.com/en/industries/financial-services> or contact your account manager for further details.**



# Business Services

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