The future of banks is in the cloud

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Minds made for transforming financial services

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Introduction

While banking in the cloud has been embraced by new challenger banks and FinTechs, it is also a topic that still causes real angst at the executive level across legacy banks that see themselves as protectors of customer data.

Anita Kimber
Digital and Innovation Leader
Ernst & Young LLP

This paper considers the opportunities and challenges associated with cloud solutions, and the mitigation strategies available to banking institutions. The key themes are drawn from a September 2019 webinar moderated by Anita Kimber, Digital and Innovation Leader, Ernst & Young LLP. The participants sharing their views were Hamish Thomas, Banking Technology and EMEIA Payments Leader at Ernst & Young LLP; Paul Taylor, CEO of Thought Machine; and Michael Mueller, CEO of Form3 Financial Cloud.
All the major institutions we work with have the cloud very much on their agenda. The start-up FinTech institutions we work with are building up their propositions. There is an inevitability about the cloud and, in three to five years, we will have hit a tipping point. It will be a given that, if large institutions are planning a transformation, it will be into a cloud-native environment.

Hamish Thomas
Banking Technology and EMEIA Payments Leader at Ernst & Young LLP
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Why embrace the cloud?

In a few years from now, there will be no questions asked about the logic of cloud migration: developing digital-native platforms will be the norm. Already, FinTechs and challenger banks are proving that cloud-based operations work — and customers like the accessibility, as well as the look and feel, of new service offerings.

Traditional banks recognize the need to embrace banking in the cloud in order to give their own customers the best possible service and remain competitive in the market. The benefits of cloud-native banking solutions are well established, including:

- High security, e.g., through data encryption, with no need to rely on perimeter security
- High resilience
- Lower-cost operations
- Improved functionality, enabling better customer service
- More rapid innovation to respond to market and customer needs
- The ability to scale quickly and run on a variety of hardware

Cloud-native versus cloud-hosted

Cloud-native applications have been written to maximize the benefits of the cloud. They have been successfully adopted by many FinTechs and challenger banks. Some traditional banks are also developing their own “challenger” brands using cloud-native technology to attract new customers with a specific proposition, such as mobile-only banking.

With cloud-hosted solutions, legacy technology is being migrated to, and “containerized” in, the cloud — achieving some benefits, but failing to embrace the full opportunities offered by banking in the cloud.

“Cloud-native applications can run on a variety of hardware and can scale quickly. Cloud technology is more secure than legacy, on-premise IT because you can encrypt data on the disk and in transit. It’s more scalable. It is a fraction of the cost of legacy systems. But the biggest benefit of cloud migration, especially from a bank’s point of view, is the cost of change. Change comes all the time because of regulators, new markets, acquisitions and user expectations in a 24/7 online mobile world. You need to be able to move quickly. Cloud-native computing helps you do that. For example, being able to test your system automatically means that, instead of having hundreds of people testing every change, you can automatically test it, reject it if the test fails and go live if the test works.

Paul Taylor
CEO, Thought Machine
Although FinTechs and challenger banks have proven the concept of cloud-native banking solutions, traditional banks have found it harder to adapt. Long-standing brands with decades of organic growth often have complex legacy systems and operations. Transformation initiatives developed through a pure technology lens can underestimate the need for end-to-end coherence across both technology and operations. They can also underplay the need for control to address the risk and compliance concerns of banking stakeholders.

However, some concerns over the risks of cloud migration may be misplaced. For example:

- Cloud technology can provide even greater security than on-premise IT.
- Automatic testing in cloud-application development improves outcomes.
- Options are available, e.g., in terms of public or private cloud deployment.
- Resilience and security risks apply to all forms of technology deployment — not just cloud-based applications.

Failure to embrace banking in the cloud arguably represents a bigger business risk than adopting the new technology. Customers in the UK, for example, generally have a positive opinion of the new, cloud-based challenger banks. They are looking for banking services to be delivered in a way that is resilient, secure and “always on” – available 24 hours a day. If traditional banks are to compete in this environment, their services need to evolve – making maximum use of the opportunities presented by cloud-based banking.

Regulators such as the UK’s Bank of England are now taking a pro-cloud stance. New cloud-based applications must be subject to proper testing and controls, but banking in the cloud is increasingly recognized to be where the future lies.

“...

It may not only be an opportunity; it might become a strategic imperative for many financial institutions to start migrating to the cloud to remain competitive in an increasingly crowded marketplace. But you shouldn’t start with the technology: it’s all about what it can do and what the advantages are. I see a step change when it comes to those advantages from a security perspective, a cost perspective and a functionality perspective. The cloud gives financial institutions a lot more opportunity to innovate more quickly and bring together customer propositions by combining different components that they may build themselves or source from other companies.

Michael Mueller
CEO, Form3 Financial Cloud
Traditional banks have two main options for capitalizing on the cloud’s potential. Firstly, they can launch their own cloud-native challenger, an approach already adopted by some large banking organizations. This has a number of attractions. The challenger bank is aimed at new customers, who may be offered a focused service – perhaps mobile-only and containing one or two banking products rather than the full suite. The brand power and resources backing this new offering may provide competitive advantage over competitors with no legacy banking history.

The second approach is to focus on migrating one part of the bank’s operations to the cloud, such as the mortgage book or savings book. If successful, other operations can be moved to the cloud in a gradual, managed process.

Whichever approach is chosen, a successful move to banking in the cloud doesn’t start with the technology, but with an understanding of what the technology can do. Any cloud migration initiative needs to:

- Focus on the purpose of adopting the technology – what it can enable the bank to do
- Consider the end-to-end operating and business model needed to make best use of the technology
- Address risk, control and compliance issues from the start
- Concentrate on getting the banking “basics” right
- Ensure regulatory requirements are understood and satisfied
- Consider how to give boards comfort that key issues such as security, business reputation and customer impact are being given proper attention
- Ensure communication with boards reflects their concerns and is framed in a business and human context

From a longer-term cultural perspective, there is also a sense that the traditional banking sector as a whole needs to change the way it thinks about and develops technology. Lessons could be learnt from other sectors. Within technology companies, for example, change is built into the system, and the internal culture expects constant upgrades and improvement.
How EY teams can help

In a world where all new applications are deployed in the cloud, traditional banks need to face their legacy challenges. Within three to five years, banking in the cloud will be the new normal. It is therefore vital that banking institutions find a way to move successfully from the old world to the new.

With the vast array of operating model, customer journey and technology changes that need to be made, the migration of existing banking operations to the new cloud environment is challenging. Significant risks need to be managed.

EY teams have developed a Cloud Governance Framework to help clients seize the opportunities presented by the cloud in a safe and secure manner. The Framework aims to address key roadblocks to cloud adoption, including:

- Clarity over regulatory compliance
- Data classification and data governance
- Operational risk management

EY Cloud Governance Framework

- Drive constant business improvements (six-months transformation cycles)
- Expose Application Program Interfaces (API) of core business services/measure Total Cost of Ownership (TCO)
- Measure business adoption/initiate new partnerships
- Measure business productivity

- Standardize and validate new application builds (simplify + buy vs. build policy)
- Enforce move from IaaS to PaaS (e.g., wide adoption of cloud services)
- Help ensure global delivery/global data governance/global operations model
- Pilot cloud-first innovation use cases (LoB sponsored)
- Shorten time to market (TTM)

- Use cloud DevOps to simplify/speed up the development process
- Re-factor applications to the cloud (re-host/modernize/replace)
- Govern cloud operations (IT cost optimization)
- Lead Data centre (DC) modernization

COO: Lead cloud transformation

CoE: Help deliver on a cloud vision

CIO: Drive cloud adoption
In a Senior Managers Regime (SMR) regime, senior managers require reassurance that any cloud implementation is fully planned and fully governed. To this end, the EY Cloud Governance Framework offers them a real-time and broad view of all security and regulatory controls that organizations must enforce in the geographies in which they operate when processing enterprise data in the cloud; providing them with the necessary oversight to satisfy regulators and assurance functions.

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