

CLOUD4C

UP IN THE CLOUD

Banking Industry Ready
for Take off



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Introduction

Banking, in its myriad forms, has existed since the dawn of civilization. Rise of telecommunications and computing in the 20th century fuelled a dramatic shift in the size, reach, and operational complexity of banks. As we gallop towards the era of Industry 4.0, banking is poised for a massive transformation like no other in its history.

A multitude of forces are at work driving this transformation. New age technologies have enabled the emergence of fin-techs and challenger banks that are rapidly unbundling and disrupting the industry value chain. Large technology companies - the likes of Apple, Facebook, Google, Amazon – are leveraging their access to the end-customer to offer services that traditionally would be provided by banks. And the customers, pampered by the choices they have, are asking for convenience, flexibility, and services that banks are finding hard to fulfil. Amidst all this, the regulators are directing banks to be more transparent, open, and secure.

Thanks to new age technologies, we believe these forces provide an unprecedented opportunity for banks to catapult themselves to a higher orbit of performance. However, this would require bank executives to make non-conventional decisions and act on them swiftly. Maintaining the status quo is no longer an option.

Cloud computing will be the catalyst to this transformation for banks. We believe the bank of the future will run in the Cloud. In addition to the opportunity to generate new revenue streams, improve services and attract new customers, cloud banking will challenge the traditional culture and closed mindset of banks. Cloud banking will enable banks to participate in an ecosystem that is open, innovative and collaborative. Banks that act fast and decisively will have a clear edge over their peers in this digital race and will benefit the most.

Cloud computing is already moving to the forefront as a focus for the Chief Information Officer (CIO), C-suite executives, and board members. Today's CIO has a real opportunity to take charge and help their banks take off into the future, thanks to the agility and flexibility offered by the cloud. The board expects the CIO to not only be a leader who engages and delivers change throughout the organization but also an entrepreneur who dreams about the future and seeks out that change and innovates to improve commercially.



Bank of the Future - Built on Multi Cloud and Hybrid Cloud

Sky-high consumer expectations, ever-evolving technologies, unknown competitors, and alternative business models characterize the new normal for banks during this decade. To stay ahead of the curve, banks need to effectively leverage Cloud not only to store data and applications but also to access new capabilities, kick-start innovation and collaboration, and introduce flexibility in their business. Cloud, in short, is the foundation for the bank of the future. The key building blocks for the bank of the future are:

CUSTOMER-CENTRICITY



Customers are demanding a multi and cross-channel experience, which is real-time, available 24/7, and embedded in their unique lifestyles. They want their banks to be able to anticipate their needs and fulfil them proactively. They want banking to be an experience not a chore. Banking needs to be centred around delivering delight to the customer. Cloud makes this possible by allowing banks to respond quickly to their needs, unencumbered by the constraints of legacy infrastructure.

LOW COST



Banks need to be able to offer their services at much lower costs – to be able to effectively compete with the fin-techs and to profitably tap into newer customer segments who are so far unbanked. Low cost structure also allows banks to form newer partnerships that offer low margins but high volumes of business. Being in the cloud allows banks to save cost by not having to invest heavily in dedicated hardware, software, and services.

OPEN



Banks need to be completely open – to quickly integrate new applications, effortlessly onboard new partners, and seamlessly exchange data with third parties – while ensuring full security. Open banking is a collaborative model driven by APIs (Application Programming Interface), which allow developers to incorporate third-party data and services into their applications. These APIs enable banks to become the hub of a partner ecosystem that feeds new business. Cloud offers the flexibility needed to build this ecosystem.

UP-ALWAYS



Banks can't afford downtime, planned or otherwise, anymore. They need to ensure that their systems are always accessible at an acceptable speed. They need mechanisms in place to proactively pre-empt any potential down time through intelligent operations. They also need to ensure high degree of protection against external threats. Cloud computing enables access at multiple redundant sites with relative ease. Hybrid cloud models provide utmost security to the data. The data saved in the cloud is encrypted well to eliminate various security threats in banks.

DYNAMIC



A bank's ability to respond quickly to changing market, customer and technological needs is critical for it to stay competitive. Cloud enables the agility that banks require to respond quickly. They can easily scale up and scale down infrastructure as per need. They can access and integrate third party applications safely to offer new services in a short span of time. Cloud also provides the ability to cut short in-house production time by providing ready development environment.

Cloud Computing - Fuelling The Future

As per Gartner, the global public cloud service market is projected to reach \$266 billion in 2020. This equates to a growth of 17.3% since 2018. According to Forbes, 83% of enterprise workload is expected to be in the cloud by 2020 (41% on public, 20% on public and 22% on hybrid cloud). Financial institutions are no exception to this trend. IDC estimates that of their total IT spend of \$200 billion, banks are already spending \$20 billion on public cloud.

Clearly, cloud services are fast replacing local grids or dedicated servers. The incentives for banks to make such a transition are big – cloud services adoption can enable savings of 30 to 40 percent versus traditional IT build and support models. Financial services institutions have begun reaping the benefits of Cloud flexibility to enable them to adapt quickly in the face of market fluctuations and regulatory requirements. Many global banks and large regional and national banks have already embraced Cloud in varying measures. Several new-age challenger banks run almost completely in the Cloud.

While most banks and their peers are exploring and/or using cloud on some level, several companies are hesitant when it comes to undertaking a full-scale transformation. Below are some myths associated with cloud and its reality-

| Myths | Reality |
|---|---|
| Cost of moving to the cloud is not transparent | A reliable technology partner will not only help identify the cost of cloud adoption in detail but also lay out the cost of exit (in case the program does not go well) |
| The cloud is insecure | A multi-tenant cloud may actually be more secure because cloud providers are able to invest in security controls and compliance at a scale that would be unviable for any single company. AWS and Azure both have over 100 security controls in place |
| The cloud suffers from more security breaches | Security breaches are more often caused by internal factors (e.g., lack of governance norms and policies) than by external factors. Where data is stored - internally or externally - does not have a strong bearing on incidents of breach |
| Banks lose control of the data that is hosted on the cloud | Typically, vendors only provide the platform for delivering the services and have no control over the data hosted on their servers. Banks maintain the rights to who gets access to what data |
| The cloud doesn't offer the transparency required by regulators | Service providers are making significant investments to meet current and emerging regulatory requirements. They can provide reports in real-time and also help front-end regulatory audits if needed |

CIO In The Pilot's Seat

The massive transformation underway in the banking industry has put the role of Chief Information Officers (CIOs) under the spotlight. The expectations from CIOs are no longer limited to driving technology delivery, ensuring high uptime for critical applications, managing security and compliance, and reducing IT cost.

CIOs are now also responsible for keeping their banks at the forefront of innovation by evaluating and propagating use cases of newer technologies like IoT, AI, Blockchain et al. These technologies are increasingly taking centerstage in digital transformation for banks. No wonder, many CIOs are starting to don the mantle of Chief Transformation Officer for their banks. The board looks at the CIOs not just for driving IT for the bank but for constantly bringing in new capabilities and greater agility that enable the bank to capture newer market opportunities.

To be successful, bank CIOs need a fundamental shift in their mindset. They must take charge of building the bank of the future by enabling agility, internal collaboration, and external partnerships. This requires a change in mindset from being the ‘Guardian of the status quo’ to the ‘Pioneer of change’.

Cloud technologies provide the right platform for the CIOs to drive transformation by enabling rapid delivery, experimentation with new technologies, secure and fast access to third party capabilities, profitable collaborations, and swift scale up when needed – all at a fraction of the cost they incur on their legacy systems.

Before you Hit the Runway - Planning your Journey to the Cloud

Any bank serious about transforming itself to thrive in the future needs to adopt Cloud proactively. Yet, compared to its potential, the actual adoption of cloud in the banking industry has been lackluster. Risk-aversion is a key factor that keeps banks from embracing Cloud whole-heartedly. Given the stakes involved, it is only imperative that banks spend time upfront preparing for their journey to the Cloud. Based on our experience of working with multiple banks on their Cloud initiatives, we have identified some common themes that are key to successful planning:

1

Be Real about Risks: What you hear and what you really face are different

Many of the generic risks that conservative bank executives often quote about Cloud are not real any more thanks to rapid advancements in Cloud ecosystem. However, there are still many risks specific to each bank – typically rooted in the bank’s strategy, structure, governance, culture, local regulations, processes, and technology stack - that may hinder a successful adoption. A good starting point is to lay out all these risks on the table through a cross-functional team. These risks are useful in not only informing the bank’s unique approach towards Cloud adoption, but they also become critical parameters for selecting Cloud partners that are best suited for mitigating them.

2

Prioritize Workloads: Non-core is not the only place to start

After identifying the risks, an internal analysis to prioritize the business areas, applications, processes, data, etc. that can be easily taken to cloud is a useful step. This can be based on broader organizational priorities and identified risks and well as timelines and budget at hand. It is common to start with non-core processes and applications (e.g., HR, Finance, DevOps, SecOps, etc.) but it does not necessarily have to be so. Some banks also decide to start with critical greenfield projects in the Cloud, typically because their legacy stack would not support such projects.

3

Select Partner(s): Bigger may not necessarily be better, for you

Identifying the right cloud partner could be a complex and exhausting exercise. Clarity on risks that need to be mitigated and workloads that need to be prioritized is useful in narrowing down the choice of partners. Typically, partners that provide a banking-specific cloud as well as cloud-based managed services offer more relevant solutions. They bring with them full spectrum of domain focused solutions, services and advice rather than generic cloud services that may need a lot of customization.

4

Run Pilots: IT function is a good place to start

Running small pilots, preferably with multiple vendors, not only helps identify and iron out teething issues but is also a good way to evaluate vendors. In many cases, pilots also help align internal cross-functional teams that would drive larger migrations in the future. Since the CIO is typically responsible for driving the transformation, it is a good idea to start early pilots in the IT function before doing it for business functions. That helps the IT function to prepare itself for driving large-scale adoption of cloud within the organization. Many of these pilots could also evolve into real projects and yield benefits for the IT function.

5

Build Buzz: Enterprise-wide buy-in and adoption needs positive buzz

Cloud adoption is as much a technology initiative as it is an exercise in Change Management. It is critical to build positive buzz about Cloud amongst business stakeholders to get their buy-in and support. This can be done by sharing internal success stories from the pilots and external success stories that vendors can showcase based on their experience with other banks. These stories need to be widely circulated through formal and informal channels to get people excited.

Choose your Co-pilot Wisely – Considerations for Selecting the Right Multi Cloud and Hybrid Cloud Partner

Partners play a critical role in the success of Cloud related initiatives. Given the broad applicability of Cloud, multitude of partner options available, and the variety in solutions and services offered by them, selecting the right partner is not easy. While the specific context and preferences of each bank would determine the right partner for them, there are some screening questions that banks can ask potential partners to identify the few with which to engage further:

| | Questions to Ask | What to Expect |
|---------------|--|---|
| Capability | How diverse are your cloud capabilities? | The partner should be able to manage across multiple platforms including public, private, and hybrid clouds |
| | How credible are your solutions and services? | Solutions and services that have been proven elsewhere and offer enough flexibility to customize as per the bank's needs |
| | What Service Level Agreements (SLAs) do you offer? | Single SLA at the application level where the partner takes ownership of the full outcome rather than specific components |
| | What is the extent of automation in your operations? | The partner should be able to demonstrate high degree of automation using AI so issues can be identified and resolved proactively, avoiding downtime and associated costs |
| Customization | Do you have a dedicated banking practice? | A well-established banking practice that houses multiple domain experts as well as a rich repository of relevant use cases |
| | Do you provide a banking specific Cloud? | The partner should offer a banking specific Cloud to ensure that the offerings are already sufficiently customized for industry needs |
| | What type of partner ecosystem do you have? | A rich and diverse set of banking-relevant partners to offer right advice as well as enough flexibility to the bank to choose the ones catering to its unique needs |
| Compliance | What is the geographical footprint of your infrastructure and operations? | A multi-country footprint that broadly covers the existing and planned footprint of the bank, so the partner can support seamless operations and growth across geographies |
| | How do you support multi-country data residency regulations? | The partner should be well-versed with data residency regulations and compliance norms in multiple countries. Should also be able to front-end regulatory audits when needed |
| Commercials | How do you price your services and solutions? | The partner should be able to provide detailed one-time and recurring costs as well as the costs associated with exit. Lower exit cost means more flexibility to switch if needed. |
| | Would you compensate us for the existing infrastructure made redundant by Cloud? | Partner should be able to buy back the existing infrastructure and provide credit that can be used to offset the recurring cost. This helps make the business case for Cloud more attractive. |

Ready to Take-off?

Moving to Cloud is no longer a choice for banks, it's a necessity for thriving in the new era of banking. Many leading banks are already moving their critical workloads to the Cloud. Multiple challenger banks have launched in the last few years that run almost entirely on the Cloud. What's driving this move is the flexibility, scalability, speed, and cost effectiveness offered by Cloud.

It's time bank CIOs shed their inhibitions and worries about Cloud and make it a core element of their technology strategy. As we saw in earlier sections, the risks that are projected are often overblown. It's mostly inertia that's keeping banks from making a rapid transition to the Cloud.

Multi cloud and Hybrid cloud presents an unprecedented opportunity to the CIOs to be the change agents and lead transformation for their banks. The move must be made cautiously though. Being able to plan well for the transition through involvement of all key stakeholders is a key first step in the journey.

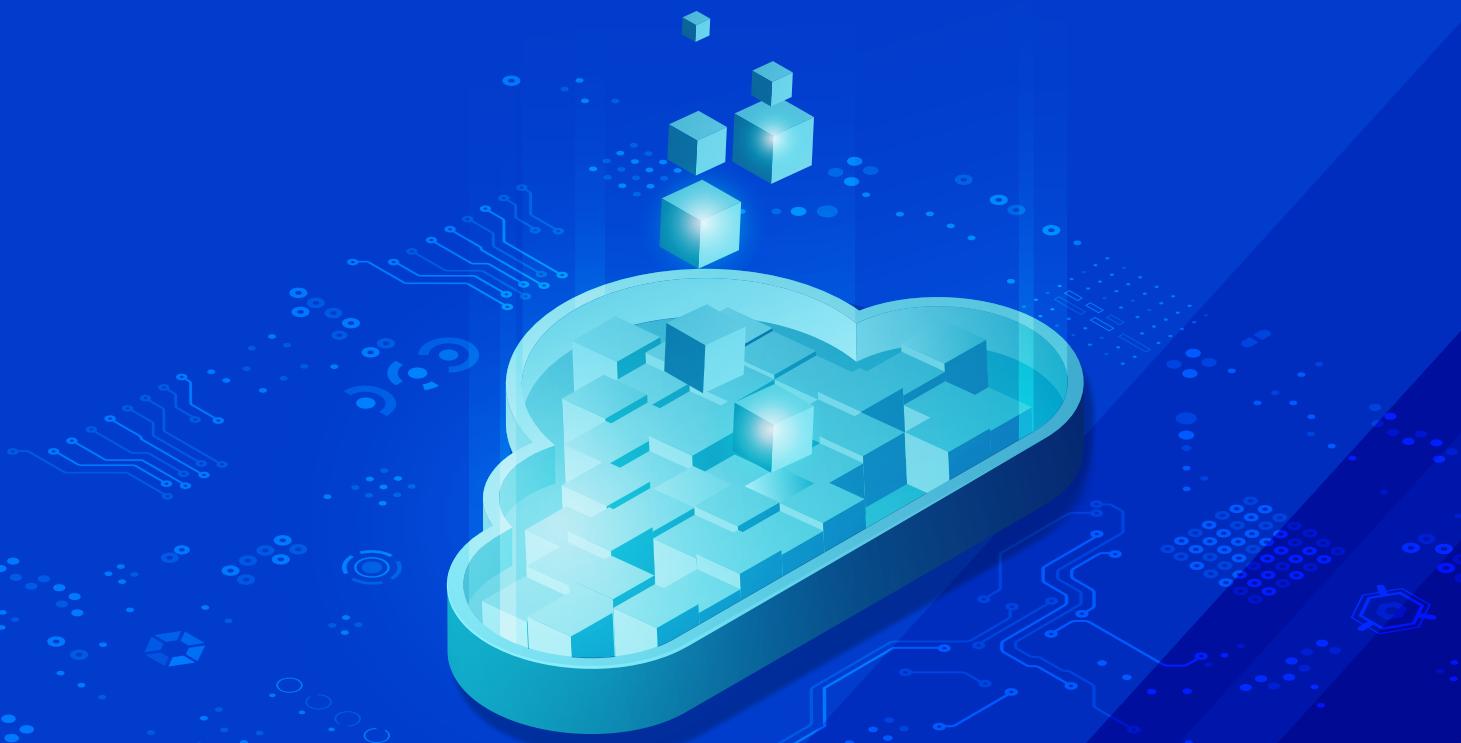
A suitable partner who brings right capabilities, multi-country presence, and automated operations along with demonstrated ability to take full ownership of services is critical to success. An ideal partner should also offer commercial terms that are transparent, detailed, and help make an attractive business case for the Cloud.



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Cloud4C is a global cloud managed services company providing integrated security and compliance solutions with Single SLA at application level on all major public cloud platforms such as Microsoft Azure, AWS, GCP and a fully managed hybrid cloud locally hosted across 25+ countries. We cater to the needs of enterprises across various industries like BFSI, Public Sector, Oil & Gas, Retail, Travel & Tourism, FMCG, etc., through our Zero Friction delivery framework.



www.cloud4c.com | cloud4banks@cloud4c.com