

ACCELERATING THE JOURNEY TO CLOUD



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07

MOST CAPITAL MARKETS INSTITUTIONS USE IN-HOUSE IT SYSTEMS WHOSE LEGACY ARCHITECTURAL CONSTRAINTS MEAN THEY ARE POORLY PLACED TO SUPPORT EVOLVING REVENUE GENERATION OPPORTUNITIES, CONTROL NEW RISKS AND USHER IN AUTOMATION IN THE NEW DIGITAL AGE.

Historically, companies have built, accumulated and maintained layer upon layer of proprietary technology because other suitable options (those supporting highly differentiated capabilities) simply were not available.

Despite the efforts of many of the best IT engineers in the industry, many capital markets institutions have been left with vast, in-house IT estates entwined in complex, interdependent webs. These estates are slow to change and carry a huge cost burden. With cloud computing entering the scene as a viable option, companies can now transform their internal IT estates for better cost, speed and efficiency.

QUICK FACTS

90% OF BANKING RESPONDENTS agree that cloud helps businesses

60% OF CAPITAL MARKETS INSTITUTIONS say that cloud-based entrants will challenge traditional industry models

Source: Accenture

Given the competitive situation—60 percent of capital market institutions say that cloud-based entrants will challenge traditional industry models¹—moving to as-a-Service, cloud-based solutions could be a logical route to the recovery of return on equity levels. If banks do not respond quickly, jettisoning legacy architectures and establishing agile IT, their cloud native competitors—simple, open and homogenized—could drive a wave of disruption and opportunities missed by existing players.

CLOUD VALUE PROPOSITION FOR INVESTMENT BANKS

Cloud could drive business value by:

- **transforming cost models (in an elastic, pay-per-use model)**
- **supporting top line growth (innovation and speed to market)**
- **facilitating the meeting of regulatory requirements**

Ninety percent of banking respondents agree that cloud helps businesses stay at the forefront of innovative adoption.² The shift from a proprietary in-house information supply chain to a combination of cloud-enabled services and external ecosystem utilities could allow firms to bring their long-term operating costs under control and improve return on equity. The cost structure is also becoming far leaner, with capital assets and workforce costs replaced by consumption-based pay-per-use charging.

Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS) cloud solutions are driving the optimization of existing IT within banks, reducing costs and simplifying and standardizing estates. The adoption rates are now accelerating across capital markets for both private and public solutions.

Banks such as J.P.Morgan have stated clear strategic directions for the use of public cloud solutions in a hybrid model with private solutions.³ One-third of capital markets institutions expect to be using hybrid Platform-as-a-Service and Infrastructure-as-a-Service solutions within three years.⁴ Candidate application workloads for public cloud have extended beyond commodity back office services and some banks are now exploring the viability of public cloud across their value chain.

Software-as-a-Service (SaaS) and Business-Process-as-a-Service (BPaaS) solutions present opportunities for banks to create entirely new cloud-enabled operating models, moving traditionally in-house delivered technology and processes to as-a-service models. The ecosystem is currently dominated by industry consortia style utilities and traditional market infrastructure. Horizontal business processes, e.g. know-your-customer, were some of the first to be offered. These are now being followed by vertical business process offerings, e.g. post-trade operations. As fintech providers continue to collaborate and increasingly compete with banks, the range of such Software-as-a-Service and Business-Process-as-a-Service solutions is poised to grow.

OVERCOMING BARRIERS

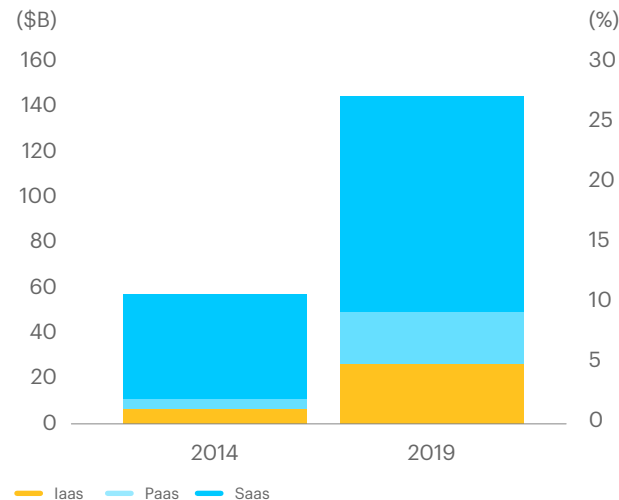
Within financial services, security and regulatory concerns have been among the biggest obstacles to cloud adoption. Regulations vary considerably by geography. For example, the Monetary Authority of Singapore has a well-defined framework in place for adoption of cloud-based outsourcing services covering both technology risk and outsourcing risk, while others do not yet have an equivalent.⁵

Capital market companies and service providers might struggle to define how financial accountability and liability should be assigned in the event of service issues or security breaches. With the emergence of fintech and regtech providers, an increasingly collaborative stance exists between financial institutions which is gradually changing the posture of regulators; they now see cloud as an enabler to re-thinking the process of regulation and compliance.⁶ External, public cloud could bring an increased need to balance the demands for speed, agility, and autonomy with security requirements, resulting in a renewed focus on encryption and obfuscation.

Operating models will need to evolve for the cloud era. There will most likely be a shift of focus from managing infrastructure and building custom systems to automating, managing and consuming services from an ecosystem of providers and consortia. This may reduce the effort focused on operational, engineering and development and instead require banks to focus more in functional areas such as financial consumption management (to support pay per use and accurate charge back models) and business architecture to align business need with relevant cloud services and cloud service integration.

Banks should ensure that their IT applications are built and transformed to become cloud native (e.g. using containers). This could ensure workload portability between various cloud environments, assembled from components that are reusable and application programming interface ready, automated for being continuously release packaged and tested.

Figure 1: Worldwide public IT cloud services revenue snapshot



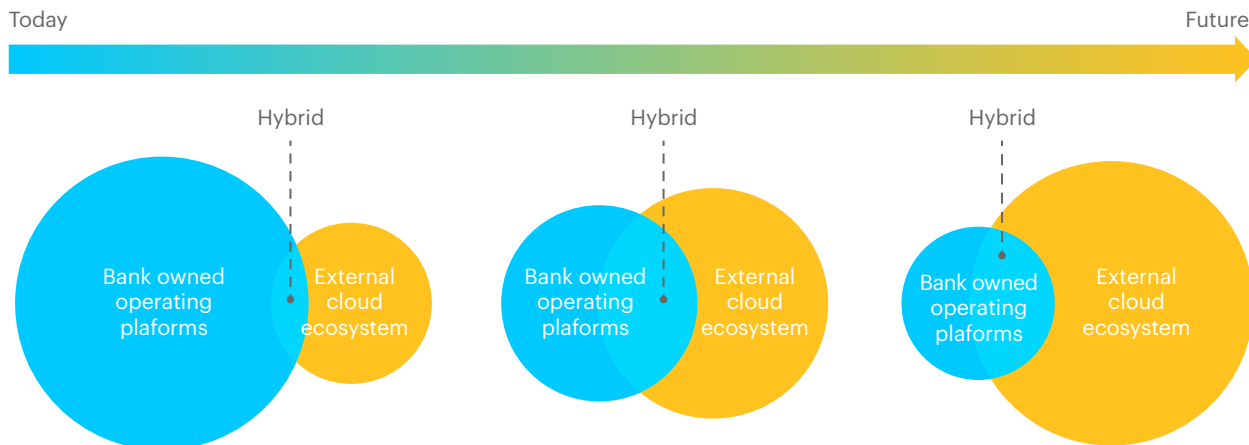
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We expect that workload portability will also be a key feature to demonstrate vendor contestability (if one cloud infrastructure provider fails, quickly move workloads to a secondary provider). Preparing applications to become cloud native might require banks to prepare for and undertake a program of application remediation and refactoring activity.

In most cases, however, internal IT is behind in speed and outcomes with regard to delivering new capabilities, when compared to Anything-as-a-Service (XaaS) providers and brokers. Only 34 percent of respondents in a recent Accenture survey selected internal IT as the fastest at delivering new capabilities and best at providing outcomes.⁷



Figure 2: Evolutionary roadmap to external cloud ecosystem



Source: Accenture

Through increased agility and efficiency, cloud could help capital market companies respond to new and existing industry challenges, as well as provide the basis for integrating the broader wave of emerging technologies such as distributed ledgers, artificial intelligence, big data analytics, development and operations, and agile architecture into their ecosystem. This agility could be enhanced, even magnified, by the power of the ecosystem providers and the combinatorial effect of harnessing newer technologies as they come online from cloud service providers.

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Accenture's journey to cloud framework is helping several investment banks accelerate their journey to cloud. Getting the journey right involves a number of key activities:

- 1. Assessing and defining the cloud strategy,** including a portfolio assessment of the processes, applications and data suitable for transition to a Business-Process-as-a-Service/Software-as-a-Service solution. Then, defining the appropriate hybrid Platform-as-a-Service/Infrastructure-as-a-Service strategies for all remaining in-house solutions. Accenture's High Performance Investment Bank framework can provide valuable support throughout these steps (noting that some workloads will not be candidates for cloud and will trigger end-of-life/application decommissioning activities).

“ THE BANKS THAT THRIVE IN THIS GENERATION OF INDUSTRY EVOLUTION COULD BE THOSE THAT ADOPT A NEW PARADIGM IN THE DELIVERY OF IT AND OPERATIONS.”

2. Defining target cloud architecture and requisite

target platforms, including deciding on private platform and hyper-scale cloud partners that could play within your cloud ecosystem. As cloud products and services evolve at pace, establishing appropriate hybrid cloud brokerage/orchestration is key.

3. Future-proofing applications by migrating strategic proprietary applications from legacy architectures to Platform-as-a-Service containers (initially deployed to bank infrastructure and private clouds). This process can allow companies to fluidly redeploy IT solutions to public Infrastructure-as-a-Service and Platform-as-a-Service services as they emerge and mature over time. Building a cloud service orchestration, integration and management capability into the bank's IT enterprise is essential for success.

4. Developing a multi-speed IT operating model to support the bank's journey to cloud. This model should be catered to the organizational, architectural, governance and business engagement needs that could arise when introducing Anything-as-a-Service models alongside traditional, in house and bespoke delivery methods. Significant transformation is required of the workforce and processes to ensure maximum benefit realization.

The banks that thrive in this generation of industry evolution could be those that adopt a new paradigm in the delivery of IT and operations. They would recognize that the current era of capital market companies attempting to independently build and operate their own information supply chain is over. Banks might still compete by creating differentiating value with proprietary products, processes, algorithms and data.

However, those who succeed and flourish could be the companies that rapidly adopt their operating models and IT systems with a pragmatic, value-driven "Everything-as-a-Service" orientation.



“ THROUGH INCREASED AGILITY AND EFFICIENCY, CLOUD COULD HELP CAPITAL MARKET COMPANIES RESPOND TO NEW AND EXISTING INDUSTRY CHALLENGES. ”

