MOVING TO THE CLOUD

A Strategy for Banks in North America

FINANCIAL SERVICES TECHNOLOGY ADVISORY: PERSPECTIVES ON CLOUD

accenture consulting
ACROSS THE GLOBE, BANKS ARE FACING MOUNTING CHALLENGES.

In addition to regulatory demands for enhanced transparency, higher capital requirements, and new standards touching on the treatment of customers, companies are also facing greater shareholder pressure for faster growth and higher margins, and to new inroads from traditional and non-traditional competitors. In response, many companies are turning to the cloud, employing it as a business asset to transform the company and reshape their operating models, their products and services and the customer experience. Cloud is the foundational element for this digital change.

As seen in Figure 1, competitors and start-ups both within and outside the financial services space are using digital technologies to offer customers personalized products at lower cost. Access to new sources of data is allowing companies to address underserved markets. Burdened by legacy systems and outmoded operating models, traditional financial services companies run the risk of being left behind by faster, more agile and innovative competitors.

Despite a volatile environment, banks are exploring the transformative power of the cloud. Cloud technology offers new approaches to profitable growth, and companies are encouraged to develop a comprehensive and well-executed cloud strategy to capture the full potential and power of this business asset.
Most banks have begun to explore cloud’s potential as a business building asset, but are not taking full advantage of cloud’s ability and capabilities to support a financial services organization in our disruptive and evolving digital marketplace. Cloud can be the foundation for a comprehensive transition that positions a financial company as a serious competitor in this new, demanding environment.

Companies engaging in piecemeal cloud projects may find it difficult to realize desired business outcomes. While such projects are executed, the firm’s culture may remain static, lacking commitment to innovation. Some companies are using cloud to attain specific objectives, such as bypassing legacy systems or developing new products or markets. While these are important goals, cloud as a business asset can do much more. As a technology, cloud can help financial organizations transform themselves into a digital business, strengthen their enterprise security and compliance, reduce their infrastructure footprint and introduce automation to deliver improved efficiency and cost savings. As a business asset, cloud can also help companies increase their agility and speed to seize new market opportunities and protect current revenue streams, respond to a changing business environment, adapt quickly and rapidly scale to meet an organization’s changing business needs.

### Figure 1: Financial Services Competitive Environment

<table>
<thead>
<tr>
<th>EXTERNAL THREATS AND CHALLENGES</th>
<th>INTERNAL CHALLENGES</th>
<th>MARKET PRESSURE</th>
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<tr>
<td>Disruptive Competition</td>
<td>IT and Business Alignment</td>
<td>Stagnant Revenue Pools</td>
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<tr>
<td>Competition, disintermediation, fragmentation</td>
<td>High time to market, IT initiatives without</td>
<td>Continued weakness in bank profitability</td>
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<td>of the traditional bank value chain</td>
<td>clear business strategy, lack of service</td>
<td>and pressure to reduce costs</td>
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<td>mapping and service-level agreements (SLAs)</td>
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<td>Challenging Customers</td>
<td>IT Model not Adaptable to Change</td>
<td>Changing Regulations</td>
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<tr>
<td>Liquid expectations, digital life, changing</td>
<td>Automation and virtualization not delivering</td>
<td>More capital and regulatory constraints</td>
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<td>expectations customer base</td>
<td>expected results, tactical initiatives such</td>
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<td></td>
<td>as software defined networks (SDNs), but no</td>
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<td></td>
<td>clear reference architectures</td>
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**Disparate Data Sources and Reporting Methods**

From across the enterprise, and using multiple tools and platforms with no true golden source.

**Mainframe Dependency**

Monolithic applications, waterfall development, long development cycles, no levers for managing costs.

**IT and Business Alignment**

High time to market, IT initiatives without clear business strategy, lack of service mapping and service-level agreements (SLAs).

**Stagnant Revenue Pools**

Continued weakness in bank profitability and pressure to reduce costs.

**Challenging Customers**

Liquid expectations, digital life, changing customer base.

**IT Model not Adaptable to Change**

Automation and virtualization not delivering expected results, tactical initiatives such as software defined networks (SDNs), but no clear reference architectures.

**Changing Regulations**

More capital and regulatory constraints.

Source: Accenture, October 2017
As outlined in Figure 2, cloud can create a “win-win” situation for banks. Cloud can be used to strengthen or improve legacy system capabilities, but it can also accelerate the company’s digital transformation.

Looking ahead, banks should do the following to position themselves to capture cloud’s full potential. This includes:

1. Transforming their operating and delivery models, clarifying requirements and governance issues and establishing a comprehensive process;

2. Addressing regulatory and security issues related to full cloud adoption; and

3. Developing an architecture and approach to cloud that meets all requirements, sets appropriate policies, and formalizes governance structures and processes. The architecture should also support these initiatives.

By taking a comprehensive, enterprise-wide approach to cloud strategy, banks can develop an important competitive advantage over companies that tackle cloud on a piecemeal basis.

Figure 2: Opportunities Created by the Cloud

<table>
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<th>Agility to meet volatile business cycles</th>
<th>Elasticity to support high seasonality and on demand consumption</th>
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<tbody>
<tr>
<td>Reorganize IT cost structure moving Capex to Opex</td>
<td>Cost reduction and improved cost predictability</td>
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<tr>
<td>Agile application release cycles through DevOps</td>
<td>Facilitate access to enhanced capabilities (i.e. analysis of massive amounts of data)</td>
</tr>
<tr>
<td>Better operational control of the platform</td>
<td>Increased security and controls through automation</td>
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Source: Accenture, October 2017
PERCEIVED BARRIERS TO IMPLEMENTING CLOUD

While most banks and their financial services peers are exploring and/or using cloud on some level, many firms are hesitant when it comes to undertaking a full-scale transformation.

Figure 3: Security and Regulatory Compliance Perceptions Associated with the Cloud

<table>
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<th>Perception</th>
<th>Reality</th>
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<tbody>
<tr>
<td>1. The cloud is insecure</td>
<td>“A multi-tenant cloud may actually be more secure because it makes it difficult to target a particular company or data set.” Senior executive, CTERA Networks Ltd.</td>
</tr>
<tr>
<td>2. The cloud suffers from more breaches</td>
<td>“When the correct security policies for preventing attacks and detecting them are implemented, attacks are no more threatening to the cloud than any other piece of infrastructure.” President and Co-founder, Huddle™ (Ninian Solutions Ltd)</td>
</tr>
<tr>
<td>3. Data is secure when it is physically controlled</td>
<td>“The various high profile security breaches... have served to highlight that the physical location of the data matters less than the access and associated controls.” General Manager of Navisite, LLC</td>
</tr>
<tr>
<td>4. Cloud security tools and capabilities are not ready</td>
<td>“There are now tools and capabilities that allow IT to enable cloud securely in any number of environments specific to unique requirements’ needs thanks to the ubiquitous nature of APIs.” CEO and founder of Netskope, Inc.</td>
</tr>
<tr>
<td>5. Maintaining cloud security is far too difficult</td>
<td>“Believing in this myth leads to companies either compromising security in the name of business requirements or refraining from using the cloud for mission critical applications.” CEO of Flux7, Inc.</td>
</tr>
</tbody>
</table>

Sources: The great IT myth: is cloud really less secure than on-premise?, Information Age, March 9, 2015. 20 of the Greatest Myths of Cloud Security, CIO.com, May 13, 2015.
Most often, risk and security executives cite issues associated with public cloud solutions, although major cloud providers have effectively addressed most of these concerns (see Figure 3). Though many companies have made important investments in their legacy systems—investments that have yet to be fully amortized—some firms fear that migrating to the cloud could increase costs at a time when there is intense pressure to reduce costs.

Others worry that key applications are not “cloud ready” and may require significant modernization before they can be effectively migrated to the cloud. Some companies have simply taken a wait-and-see position, watching how competitors handle cloud challenges before committing to major change.

Our perspective is that the time for waiting is over; now is the time for a bold move to the cloud. Cloud capabilities have evolved so rapidly that cloud can support any strategic direction taken, whether through a hybrid approach or via the public cloud.

Banks and their financial services peers can realize important benefits by adopting a cloud-based approach to digital transformation. Yet, senior management and the board need a clear understanding of what such a transformation entails. Key elements include:

• **Re-thinking the firm’s culture**
  Cloud should be the foundation for an environment that encourages innovation and excellence. Senior management should provide strong, visible, top-down executive sponsorship, with clear messages that comprehensive changes are under way.

• **Roadmap and migration plan**
  Before beginning the transformation journey, the firm should develop a roadmap and migration plan that establishes priorities and the steps needed to accomplish them in sequence. The cloud architecture should incorporate backup and redundancy features while addressing security and performance concerns. It should also integrate toolsets and processes to manage the cloud (once implemented) and to make sure anticipated business benefits are realized.

• **Transforming delivery**
  A holistic cloud implementation should result in a centralized, fact-based delivery program that incorporates DevOps and automation. Through a robust, tightly-controlled approach to governance, companies are positioned to conduct business as usual activities in parallel with cloud migration initiatives. A key milestone might include the elimination of data centers.

• **Designing a talent strategy**
  Cloud-based financial services companies can access a variety of solutions using Software as a Service (SaaS) models. In most cases, however, they will develop their own software for core functions. This means not only attracting and retaining new types of talent but giving development teams what they need to innovate and deliver. The challenge of finding hundreds if not thousands of people with scarce and specialized talent and skills in a tight market should not be underestimated.
• **Taking a closer look at the ecosystem**
  Financial services companies moving to the cloud should establish strong relationships with key suppliers. It may be possible to reduce the number of overall relationships (although competition should be encouraged) but contracts, incentives and other considerations should be carefully thought through.

• **Transforming your data**
  A financial company’s data can be an important competitive differentiator. To position the company for growth and disrupt the market, the data should be harnessed and analyzed in real-time and with a high degree of accuracy. Cloud solutions are secure and highly scalable and offer the fastest path to transforming enterprise data.
Cloud is a relatively new technology, with the first commercial cloud solutions only coming to market in the last 15 years. Due in part to security concerns, banks and their financial services peers were late in implementing cloud solutions, but there has been clear uptake in recent years. For example, according to an industry study, over 60 percent of financial institutions were developing a cloud strategy and among surveyed European-based financial institutions, 88 percent were already using cloud-based services. And for 2017, global spending on public cloud services in the banking sector is expected to climb to over $12 billion.

Cloud has become the default choice for both new applications and legacy enhancement initiatives. What we are seeing, however, is that many banks are using cloud to improve their current systems and operating model, rather than using cloud as the basis for a more fundamental transformation.

Figure 4: Paths to the Cloud

- **SaaS or Cloud Native Custom Development**
  Where SaaS is not viable; design, develop or migrate applications developed specifically for Cloud, using PaaS, Microservices, Containers and DevOps

- **Migrate to Cloud**
  Move application to Target Cloud Platform using traditional migration methodologies

- **Application Remediation**
  Re-platform and remediate applications to make them platform compliant and cloud-ready

- **Application Re-Engineering**
  Re-architect applications, to be delivered in more agile ways via automation services for Target Cloud

- **Migrate to SaaS**
  Find equivalent functionality and migrate to SaaS

Source: Accenture, October 2017
As seen in Figure 4, banks have many options from which to choose in selecting a “path to the cloud.” These include:

- SaaS packages from established vendors
- “Cloud native” custom development
- Migration to cloud
- Application remediation and/or re-engineering
- Migrating to SaaS from a custom environment

Banks may need to use a combination of these options to fully address their goals. These different paths also lead to common goals. Banks and their peers are also looking to create new business models to deliver on their business goals and strategies. This means anticipating and/or responding to disruptive challenges. To do this, organizations should undertake a shift in thinking; putting technology, rather than finance, at the core of the business, seeing it as the foundation to profitable growth.
CLOUD HAS BECOME THE DEFAULT CHOICE FOR BOTH NEW APPLICATIONS AND LEGACY ENHANCEMENT INITIATIVES.
Retail banks have been quick to explore cloud options. Working on a case by case basis, banks have used cloud to rationalize distribution channels and access layers, accelerate product development, reduce core costs, and consolidate services.

For example, Accenture worked with a large bank to create a cloud architecture that would automate the conversion of data from multiple sources into useful insights for making business decisions. With this foundation in place, the bank was better able to support development efforts and reduce development cycle times. The new cloud architecture led, as well, to a simplified operating environment and increased productivity.

The move to a cloud-based IT architecture had other important results. Overall operating costs decreased and the time needed to bring new products to market decreased substantially. Another benefit was that the bank reduced its reliance on a group of subject matter specialists who were gradually “aging out” and leaving the organization via retirement. In a more flexible and agile operating environment, data became the driving force behind decisions related to product development and the customer experience.

Other examples of banks and fintech firms moving to the cloud include:

- A top 10 US bank has announced a major shift to cloud-based operations, concentrating applications through a primary cloud vendor while developing new apps and migrating legacy applications. The bank’s mobile app is already running on the cloud and every development team at the bank is working on cloud-based applications.4

- A major bank is using cloud to support its digital transformation strategy and to cope with exponential growth in digital transactions, currently closing in on one billion transactions per day. As part of the same initiative, the bank is using the cloud to promote knowledge sharing and improved regulatory compliance.5

- In the fintech sector, a cloud-based, end-to-end lending and leasing platform is now delivering innovation to the global lending community. The fintech company digitizes origination, underwriting, servicing and collections, creating a single system of record for lending operations. Its platform can originate and service a wide variety of loan types.6
HOW BANKS SHOULD BE THINKING ABOUT THE CLOUD

There is no one right cloud strategy for all financial companies. As shown in Figure 5 below, some companies are competing effectively using legacy systems and an operating model that relies upon those systems.

These organizations may use specific cloud solutions for non-core areas such as customer relationship management (CRM) or human resources, or they may integrate cloud into certain aspects of product development, channel optimization or credit risk assessment.

While this can lead to the creation of a sustainable competitive advantage, it also entails a significant commitment in resources and management focus.

In addition to economic benefits, desired outcomes from a holistic, cloud-based transformation would include a flatter, more responsive organization and an environment that encourages innovation using “fail fast” techniques of rapid, data-based test programs. The cloud-based organization should feature fast, effective delivery and an enterprise-wide emphasis on organizational learning and adaptation.

Figure 5: Using Cloud to Strengthen Legacy Systems

New applications and capabilities can be built on the cloud to instantly realize the benefits of the “as a service” architecture.

Legacy systems can be moved to the cloud in 2 modes:

1. Evolve to the cloud through the strict governance and influence of the existing change portfolio
2. Proactively invest in executing capabilities with a cloud architecture when a compelling business case allows

Source: Accenture, October 2017
CONCLUSION

By using cloud as a business asset, banks are transforming their enterprise at high speed. This transformation—which took place slowly at first—is accelerating and is now targeting central applications and core systems. Through new approaches such as Platform as a Service (PaaS) everything is now subject to change and improvement.

Some banks are exploring specific cloud solutions while others are considering a cloud-based transformation to a truly digital organization. However, they are encouraged to take a step back and consider the big picture—where is the company now and where should the company be in one, five or ten years.

Key to this assessment would include a review of the company’s current IT structure, its internal staff, and its technology operating model. The company should also probe whether it sees itself as a technology firm engaged in financial services, or as a financial services company using technology to support its goals.

Such a self-appraisal should guide an analysis of options for cloud strategy, including the integration of regulatory and security concerns. An important part of this analysis is an evaluation of the current ecosystem, including strategic and infrastructure partners as well as suppliers of specific solutions. Banks focused on becoming digital players—putting technology at the core of their businesses—can reap significant benefits, but achieving this goal depends upon a coherent cloud strategy which includes using cloud as a business asset.
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Phillip “Chip” Bell, Managing Director, Accenture Technology Consulting Capability Lead, Financial Services North America. Chip’s experience is in the delivery of complex large scale change initiatives for Accenture’s Banking, Payments, and Capital Markets clients. He has worked with leading financial institutions both US and global, developing integrated business technologies, post merger and acquisition systems consolidation, and large scale program outsourcing and management. Chip advises on the development of business capability planning efforts, and has also institutionalized the underlying disciplines and capabilities required to manage those business and technology plans on an enterprise level. An interesting fact about Chip is that his first role with Accenture was in the mailroom when he was a sophomore at Case Western Reserve University. Today he also run’s Accenture’s Cleveland office.

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