ANALYST CONNECTION

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**The rapid pace of change, the growing complexity of bank infrastructure, and the lack of skilled staff to create and manage cloud-based infrastructures mean that banks are relying on expert partners to help them leverage cloud and transform into fully digital businesses.**

# *Driving Benefits Across the Institution as Critical Banking Business Workloads Move to the Cloud*

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**Questions posed by:** Nutanix

**Answers by:** Jerry Silva, Program Vice President, IDC Financial Insights

## Q. Are banking institutions comfortable with moving their critical workloads to the cloud? What is convincing them to do that?

**A.** Several drivers have led banks to adopt the cloud for even the most critical business applications. In fact, in IDC's April 2023 *CloudPath Survey,* two out of every three banks claimed that they have moved or plan to move components of their core deposit systems to the cloud. Some 80% of banks have deployed or are planning to deploy payments processing on the cloud. These represent some of an institution's most critical business platforms. In addition, multiple drivers have arisen over the past decade that have banks using cloud as a mission critical part of their digital infrastructure.

The pace of change over the past five to seven years has challenged the ability of institutions to transform their businesses to keep up, especially given fintech competitors that are smaller, nimbler, and cloud native. For banks to match those characteristics, they had to start moving some applications to the cloud to gain the same benefits. As more and more bank workloads moved to the cloud, both the institutions and their technology partners gained experience in vital areas like scale, resiliency, security, and compliance.

Along with the increased pace of change, the complexity of bank infrastructure has grown rapidly. That factor, combined with the lack of skills available to create and manage cloud-based infrastructures (including security and compliance), means that banks are relying on expert partners to help them leverage the cloud and transform into fully digital businesses.

## Q. What are the key challenges and opportunities facing the financial services industry around core banking?

**A.** The single biggest challenge today is the inability of so-called legacy core platforms to keep pace with market needs and customer expectations. For example, getting business specifications and spending a year to develop a bespoke application to accomplish the task aren't feasible anymore. There's also the lack of skilled personnel necessary to develop on a COBOL-based core platform like many existing core systems. Add to that the increasing costs of maintenance, the inherent increased risk in scale and resiliency, and the move to real-time everything, and you have an environment that needs to evolve.

Providers of modern core banking systems are moving to open, scalable, cloud-based, and cloud-native architectures. This movement provides a number of key characteristics that benefit the bank. It enables the institution to deploy on the cloud, alleviating the scale and resilience challenges of many legacy platforms. Modern core systems are based on open API and microservices architectures and "decouple" functionality. This approach means a bank may choose to modernize only one business, like deposits or lending, without being required to transform everything at once, a clear operational risk. Modernization of the bank's entire IT infrastructure can now take place over a longer period and derisk the process.

Now each line of business can transform at a different pace, based on the needs of the institution, while responding much faster to market disruptions and opportunities.

## Q. What are the key considerations for banks when deciding between private, public, and hybrid cloud models for modern core banking systems?

**A.** Year after year, respondents to IDC's *CloudPath Survey* tell us that security and data sensitivity are the two most important factors when deciding whether or not to move any specific workload to the cloud. These factors make sense when you think about the banking industry being intrinsically risk based and regulated, particularly when it comes to customer data. This is not to say that concerns about security or data sensitivity are automatic disqualifiers — they are just considerations. In fact, the same survey asks about realized benefits after moving to the public cloud, and improved IT security is almost always cited as a top benefit.

The industry isn't at the point yet where a single platform, like core functionality, is being split among multiple cloud providers. But it's getting there as modern core systems that decouple business functionality become more prevalent. This means that a bank that wants to modernize one business area, like lending, may decouple this function from the existing core and deploy it on the cloud, while keeping the deposits and payments business on the existing core. This is driven mostly by the availability of a particular business function from a software provider that has a default or preferred cloud services provider.

But preferences are arising between public and private clouds. In general, banks tend to look for public clouds to drive innovation, access new functionality faster, and improve time to market. They use more balanced objectives for private cloud deployments. Here, goals like improved IT staff productivity, standardized infrastructure, reduced overall costs, and improved business resiliency matter as much as innovation and time to market (source: IDC's *Worldwide Industry CloudPath Survey,* April 2023).

## Q. How do banks deal with scalability, security, data protection, compliance, and business continuity during the move to the cloud?

**A.** This is an interesting challenge that has emerged in the movement of critical workloads to the cloud. Many institutions still have a mindset that came from running workloads within the walls of their own datacenter. In fact, the often-used adage of "cloud is just someone else's datacenter" belies the other resources that are brought to bear around the important factors of scale, resilience, compliance, and security. The banks that have had the most success in moving workloads to the cloud, particularly mission-critical applications, are very intentional about the roles of the institution, the cloud provider, the software provider, and any services organization.

This intentionality is vitally important, as it prepares the bank to manage the implementation after the move. There are new responsibilities that the bank needs to assume once the workload, like core, has been moved. These responsibilities include security oversight, third-party risk management, infrastructure monitoring and response, financial management, and regulatory compliance, for which many institutions are not completely prepared. The bank must work very closely with all partners to sort out those responsibilities, assist internal teams to reskill or upskill, and ensure that bank executives understand that the migration to cloud means significant changes in the organization to reap the benefits.

## Q. What emerging technologies or architectural approaches (e.g., microservices, APIs, and containerization) do you recommend banks consider during the update of their core banking systems?

**A.** To gain the maximum benefit from a move to the cloud, workloads should be modernized either before or during the migration. Picking up a workload and moving it as is to the cloud can be done. However, the compromises involved could, at best, limit the benefits gained and, at worst, cause problems in post-cloud operations. For that reason, banks should consider modernization or refactoring as a strategic phase in the migration to the cloud, unless the application is being replaced wholesale with a vendor-supplied solution. In this last case, it rarely makes sense to acquire a solution that is not based on open APIs, microservices, and containers.

This approach eliminates or at least minimizes many potential problems after migration. It ensures that the platforms are prepared for the agility, scale, and resilience that can be achieved on a cloud infrastructure, and it enables faster and easier interoperability with other modern solutions and platforms. The good news is that most core banking vendors have modernized or are modernizing their platforms to use these technologies and offer cloud-native platforms.

Of course, the challenge of progressive modernization, where components of the core platform are modernized and moved to the cloud separately over a long period of time, is one of integration. While some part of the core runs on the cloud, another linked application may remain on a platform in the bank's datacenter. Although the risk of overall modernization is reduced, the risk of integration increases. This is a calculation that each institution must undertake and work with partners, again, to understand the integration challenges and prepare for operations in a hybrid infrastructure.

# About the Analyst

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Jerry Silva is vice president for IDC Financial Insights, responsible for the global retail banking practice. Jerry's research focuses on technology trends and customer expectations and behaviors in retail banking worldwide. Jerry draws upon over 35 years of experience in the financial services industry to cover a variety of topics, from the back office to customer channels to governance in the technology shops at financial institutions. His work for both institutions and vendors gives Jerry a broad perspective in technology strategies.

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