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THE HYBRID CLOUD FUTURE AND THE ROLE OF APPLICATION MODERNIZATION

Financial Services Executive Summary

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THE HYBRID CLOUD FUTURE

External technology innovation and new market entrants are forcing incumbents to rethink where and how they source and deploy technology. The technical flexibility of cloud deployment is enabling financial institutions to more rapidly introduce new products and services to attract, grow, and retain customer relationships. At the same time, external ecosystems of business partners and solution providers are evolving, such as cloud hosting providers verticalizing their offerings for the financial services industry.

Inside the financial institution, the IT division is planning and building cloud solutions to create this agility internally for themselves, identify cost optimization opportunities, and introduce new customer product quickly. This is enabling many FIs to reimagine how they do business in ways uniquely different from the past.

COVID-19 Is Accelerating Cloud Migration Plans

Cloud adoption was already gaining speed prior to the pandemic, but the pace of outsourcing technology to the cloud has accelerated in 2020. A September 2020 Celent survey of financial institutions asked if the pandemic caused the FI to accelerate the pace of cloud migration, increase the scope of migration, or to not change their migration plans at all. Forty-five percent of survey respondents indicated that their company is accelerating existing plans, 9% increased the scope, and the remaining 45% did not change their plans from what was already in place.

The Celent survey also supports the assertion that cloud computing will improve IT resilience, IT agility, and the customer experience. Another question focused on the most important reasons why FIs are migrating to the cloud. Ninety-two percent of respondents indicated that improving customer experience is important. Another 84% indicated that IT agility (to accelerate the pace of IT development) and technical resilience (the ability to maintain acceptable service levels through severe disruptions and reducing the risk of system failure) are top reasons for migrating to the cloud.



Cloud migration is about the benefits to both the business and IT sides of the organization, with the business benefits being organic sales growth, cross-sell, and customer retention.

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The survey also found that cost reduction—an original driver/motivation for the cloud—is secondary to the goals mentioned above. Cloud migration is about the benefits to both the business and IT sides of the organization, with the business benefits being organic sales growth, cross-sell, and customer retention.

Hybrid Cloud Enables Optimal Management of On-Premise and Off-Premise IT

As FIs move on-premise applications to private and public clouds, they create a hybrid cloud environment. This architecture promotes IT flexibility and provides the opportunity to optimize what IT applications should be where, for example, by moving workloads between cloud solutions as needs and costs fluctuate. A key question, however, is: Can or should all the application workload go to the cloud? Is cloud the only way for banks to modernize their applications in a way that provides flexibility for the future?

For startup financial institutions, all or most application workloads could start in the cloud or migrate there. For small Tier 4/5/6 sized institutions, rapid cloud migration is possible but dependent on their risk appetite and the ability of the core system vendor to help them get to the cloud. For mid-sized and large (Tiers 1/2/3) financial institutions, however, it is not desirable to move everything to the cloud in the near-to mid-term. At minimum, systems at minimum must be modified or cloud-enabled—or be completely rewritten to be cloud native. This is a long-term and expensive endeavor, and the cost/benefit analysis—along with available resources and capital—would not support it.

But should more applications go to the cloud? Yes, absolutely—and a key strategy element is selecting the right ones and modernizing them to be more efficient operating in the cloud, while leaving other applications on premise.

THE ROLE OF APPLICATION MODERNIZATION

It is readily apparent that cloud computing has changed the way software is built and where it is sourced. Application software, databases, digital documents, core systems, integrations, telecommunications, and other business components all need some level of modification to operate efficiently in the cloud.

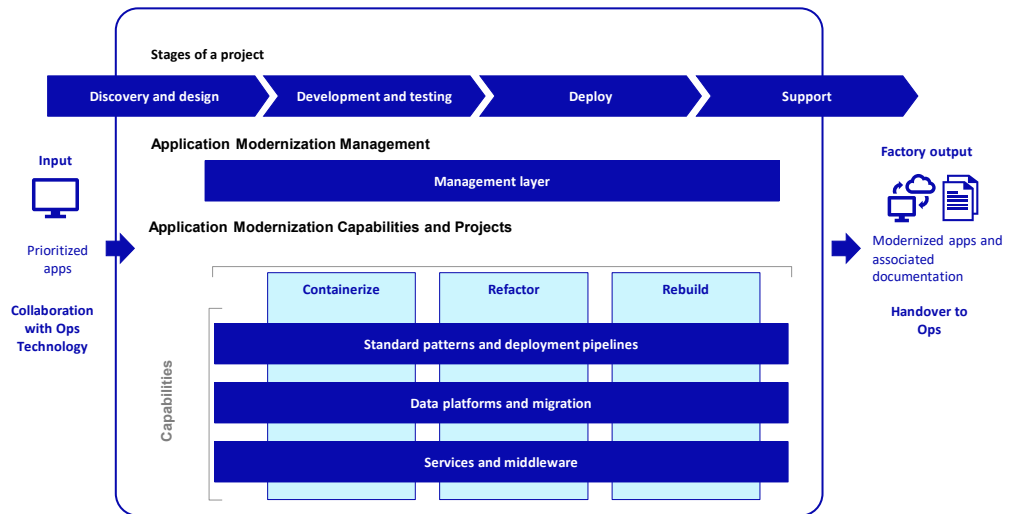
Application Modernization Is Central to Cloud Migration

On-premise software applications may or may not be modernized when shifted to the cloud, but will operate there in either case. However, the degree of modernization impacts the level of benefit that FIs receive from cloud computing. These are the main options for financial institutions to migrate applications to the cloud:

- **Rehost.** Also known as “lift and shift.” Moves applications to the cloud “as is,” but takes advantage of cloud infrastructure
- **Replatform.** Known as “lift, tinker, and shift.” Makes some modification of the application to better take advantage of the new cloud infrastructure.
- **Refactor.** Rewrite applications to better support the cloud environment, and redeploy in a cloud platform.
- **Replace.** Retire the existing application and replace it with a cloud-native application.

It is clear that application modernization is critical for successful cloud migration be it private or public. Financial institutions must decide how much to modernize various applications for the cloud to receive maximum benefit versus the modernization cost. Figure 1 outlines the processes for and main elements of application modernization.

Figure 1: Application Modernization Is Central to Building Cloud Applications Integrated with Core Applications to Improve User Experiences



Source: Oliver Wyman

There are three key points to emphasize from the chart:

- Using Agile methods for software development and testing is important both for cloud migration and fast, frequent software application updates.
- Containerization, refactoring, and rebuilding software applications are essential for optimal cloud migration. Rehosting has some benefits that are ultimately limited.
- Modernized cloud applications accelerate the development, testing, and deployment of new functionality.

Cloud migration is about the flexibility of the IT department to create and deploy new system functionality faster and at lower cost. IT that can be more easily and regularly updated enables the business organization to be more responsive to customer needs. This drives customer loyalty, and application modernization is central to these outcomes.



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PATH FORWARD

There is no cloud playbook applicable to every financial firm. There are, however, guiding principles for application modernization to support hybrid cloud. Celent suggests that financial institutions think about a few different areas:

Guiding principles

Consider the application: It's likely that in most application landscapes not all workloads will be ready to move to the cloud. Institutions should consider which applications are best suited to a cloud environment and which might be good targets for rearchitecting to cloud native. Some applications should be cloud-native, but it's unlikely that all have to be.

Consider the use case: Not all technology problems will require a cloud-native or cloud-first solution, although many may benefit from incorporating cloud principles. Long term, the cloud will be a primary state, but most institutions should think about how to prioritize cloud migration across the most pressing use cases, many of which are listed above.

Consider the current state: Some applications may be suitable for the public cloud, but the effort to get them to a cloud-native or cloud-first state may present significant barriers. Many institutions have looked to establish cloud strategies in other layers of the application stack (e.g., databases, workflow) before undergoing longer-term migration efforts.

LEVERAGING CELENT'S EXPERTISE

If you found this report valuable, you might consider engaging with Celent for custom analysis and research. Our collective experience and the knowledge we gained while working on this report can help you streamline the creation, refinement, or execution of your strategies.

Support for Financial Institutions

Typical projects we support related to policy administration systems include:

Vendor short listing and selection. We perform discovery specific to you and your business to better understand your unique needs. We then create and administer a custom RFI to selected vendors to assist you in making rapid and accurate vendor choices.

Business practice evaluations. We spend time evaluating your business processes, particularly in policy administration, rating, and claims. Based on our knowledge of the market, we identify potential process or technology constraints and provide clear insights that will help you implement industry best practices.

IT and business strategy creation. We collect perspectives from your executive team, your front line business and IT staff, and your customers. We then analyze your current position, institutional capabilities, and technology against your goals. If necessary, we help you reformulate your technology and business plans to address short-term and long-term needs.

Support for Vendors

We provide services that help you refine your product and service offerings.

Examples include:

Product and service strategy evaluation. We help you assess your market position in terms of functionality, technology, and services. Our strategy workshops will help you target the right customers and map your offerings to their needs.

Market messaging and collateral review. Based on our extensive experience with your potential clients, we assess your marketing and sales materials—including your website and any collateral.

RELATED CELENT RESEARCH

For more information on cloud adoption, cloud migration rates, and the critical role of application modernization, see:

[Public Cloud Adoption in Banking: 7 Key Considerations for CIOs and Key Stakeholders](#)

August 2020

[The Business Model Core Platform: Where Do Banks Go from Here?](#)

May 2020

[EQ Bank: EQ Bank to the Cloud! Winner of the Celent Model Bank 2020 Award for Banking in the Cloud](#)

April 2020

[RattanIndia Finance: How to Transition End-to-End Lending to The Cloud](#)

April 2020

[Bank of America: Bank of America Cloud Winner of Celent Model Bank 2019 Award for Cloud Adoption](#)

April 2019

[Banking as a Service: A New Path for Digital Transformation](#)

August 2019

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