

# HYBRID MULTI- CLOUD FOR BANKING

**Banks must adopt  
a hybrid multi-cloud  
for a better ROI**

Lee Sexton

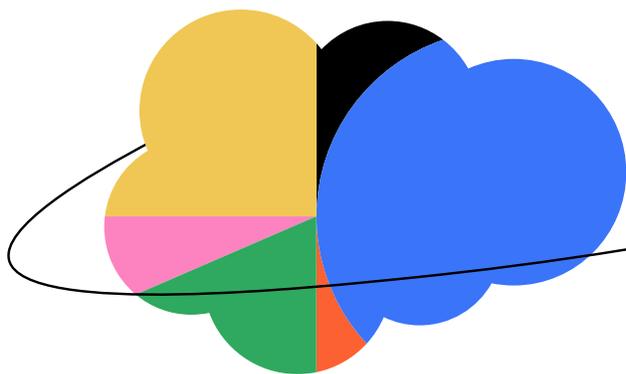
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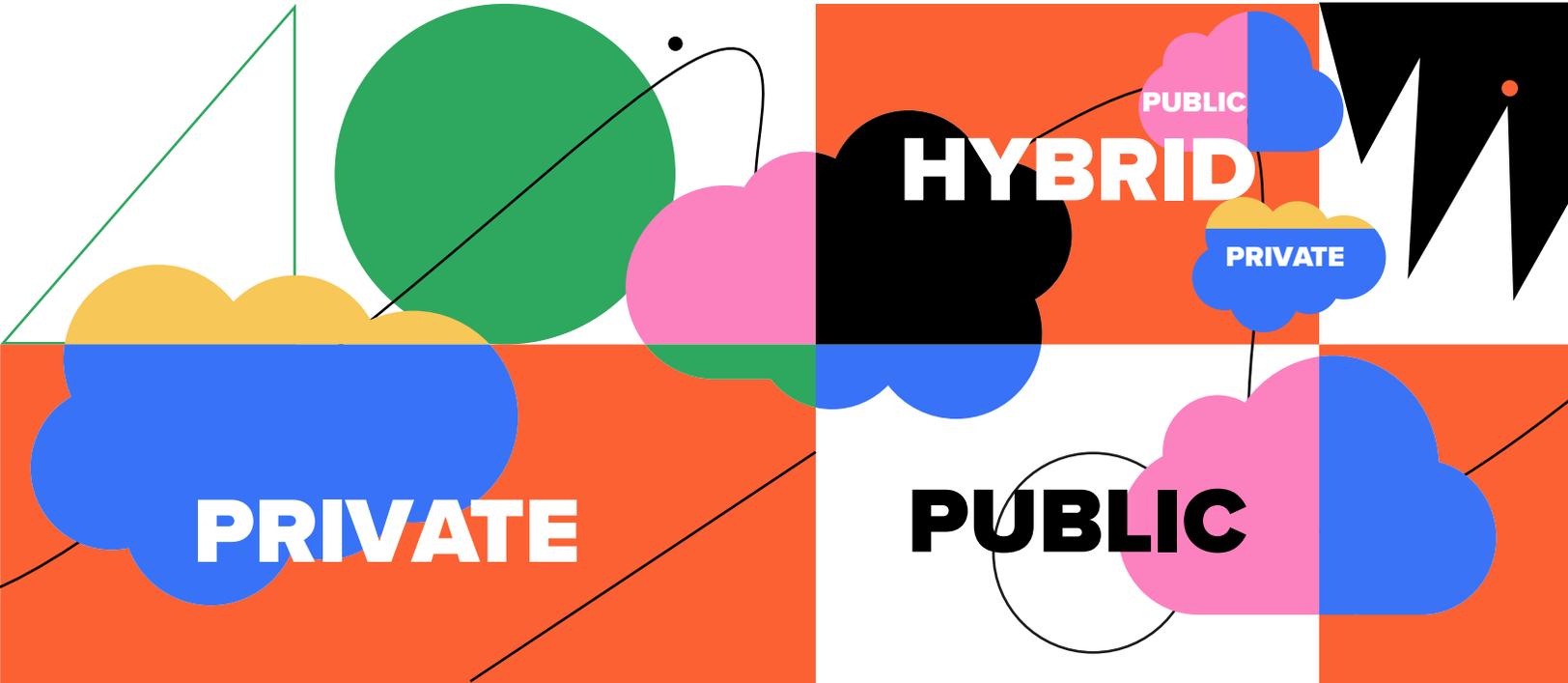
Cloud adoption is increasingly powering the banking industry's ability to improve customer engagement worldwide. Though many banks are still in the early stages of adoption, the use of sophisticated and secure ways of migrating to the cloud is growing steadily across the industry. Cloud applications enable banks to drive enhanced operational efficiency, increase revenue growth by supporting transactional systems, and forge a collaborative ecosystem. According to [a recent study by Gartner](#), by 2020 banks will use the cloud to support more than half of transactional systems.

Cloud in banking is not a new concept—banks have been using cloud for non-critical systems, such as email, CRM, and application development, for many years. However, critical transactional applications, including deposits, loans, and more, were not moved to the cloud because banks feared doing so would be a security risk. Instead, banks historically relied on creating an IT infrastructure using hardware in data centers—all owned and operated by the bank. This provided a workable solution to protect the bank against perceived risk until fairly recently.

Digital disruption is paving the way for traditional banks to satisfy the demands of increasingly connected customers with growing expectations of instant gratification—users require faster, more adaptive experiences. On-premise solutions are not scalable enough to deliver the needs of the on-demand consumer, nor are they cost effective in the digital economy. Banks must re-think cloud strategy to achieve the high operational flexibility and scalability needed for mission-critical tasks, such as peak workloads. Cloud allows banks to securely and seamlessly move operations across platforms and cloud service providers (CSPs), allowing for demand-driven services, experimentation, and innovation.

Cloud also offers the scale to deliver real-time services across multiple interactive devices, as well as a platform to develop customer insights using big data and analytics. Despite these advantages, banks have struggled to successfully utilize the full benefits of moving to a cloud environment due to lack of thoughtful planning. By understanding what cloud model works best for the banking industry and why, a bank can maximize the chance of success when establishing an individual cloud migration journey.





## CLOUD IN MANY FORMS

Three major types of cloud models exist: public cloud, private cloud, and hybrid cloud. We'll briefly look at how each of these models can adapt to the banking industry.

A public cloud yields higher benefits because teams can collaborate easily with transparency, allowing access to the information needed to provide personalized customer experiences in real-time. A public cloud is economically efficient, especially for short-term tasks and can scale easily for test/development use cases. Banks wanting to move on-premise applications to the public cloud would benefit significantly, although with limited control over data center functions. This feature in particular has meant many banks have been cautious about moving to the cloud.

Banks have felt more secure on the private cloud because of access to physical infrastructure and the control to shape the security design that meets understood security protocols. Hence, this makes the private cloud more appealing to banks.

A public cloud allows an easier set of building blocks such as Kubernetes to create services, while a private cloud allows banks to have dedicated equipment (i.e. servers, switches, and more)—provided legacy processes can handle the cloud infrastructure as not all old banking processes are suitable for private clouds.

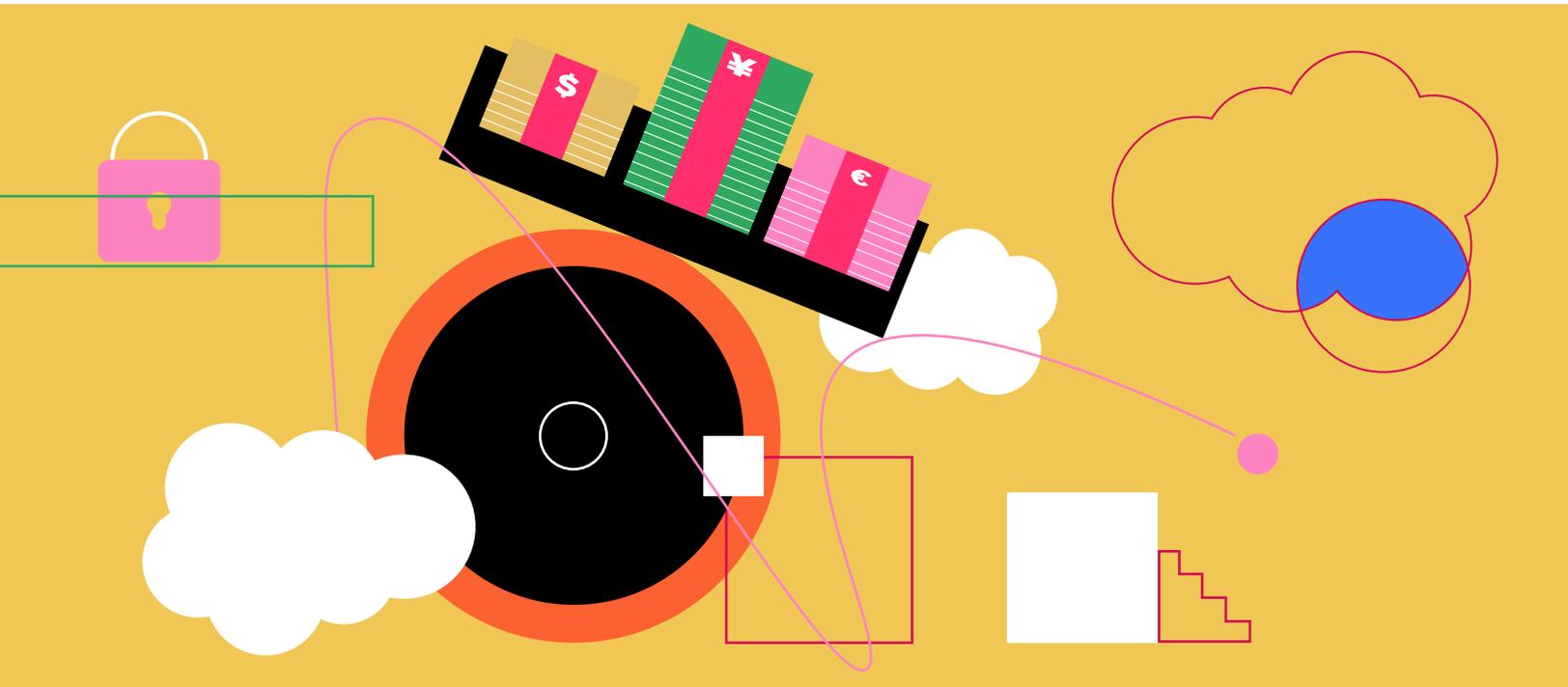
As both models have advantages for banks, a hybrid cloud model allows companies to leverage the advantages of both private and public cloud services, resulting in a cloud strategy that lowers total cost of ownership, enables greater scalability and higher performance, and enhances operational efficiency.

For optimal performance, banks should also adopt a multiple cloud service strategy, where two or more cloud platforms are leveraged to perform various tasks. This eliminates the dependency on a single cloud provider, allowing banks to select resources from several providers to maximize each unique service, increasing flexibility, mitigating against disasters, and more. According

to a 2019 [survey by RightScale](#), hybrid multi-cloud adoption rose from 71 percent to 84 percent YoY, and is expected to continue to increase steadily.

Banks can structure the cloud architecture to enable a more connected experience, which further delivers insights to keep cus-

tomers engaged, loyal, and productively using financial products and services. A hybrid multi-cloud infrastructure allows banks to maintain an environment enabling a combination of static and dynamic costs with flexibility to place workloads as and when required by the bank.



## WHY IS CLOUD ADOPTION SO IMPORTANT FOR BANKS?

Here are some reasons why a hybrid multi-cloud solution is beneficial for banks:

### OPTIMIZES EXPENDITURE

Banks operating under a hybrid multi-cloud model predictably and optimally manage finances as cost models shift from fixed to variable. Storing data onsite with traditional facilities is expensive and holds banks

in long-term contracts for a set amount of data storage. Banks over-resource infrastructure and storage leading to payment of unnecessary resources. Hybrid cloud models allow banks to scale as needed, purchasing only what is immediately utilized using a subscription-based model offered by most CSPs. Procurement and implementation in the traditional way is slow and thus capacity management and a degree of guessing are used, resulting in over-capitalized systems

offering little ROI. As the cloud allows for scaling on a pay-as-you-go model, the spend is greatly optimized. For example, [UBS's risk management platform is powered by Microsoft Azure](#), saving the financial service company 40 percent on infrastructure costs, increasing calculation times by 100 percent, and gaining near infinite scale.

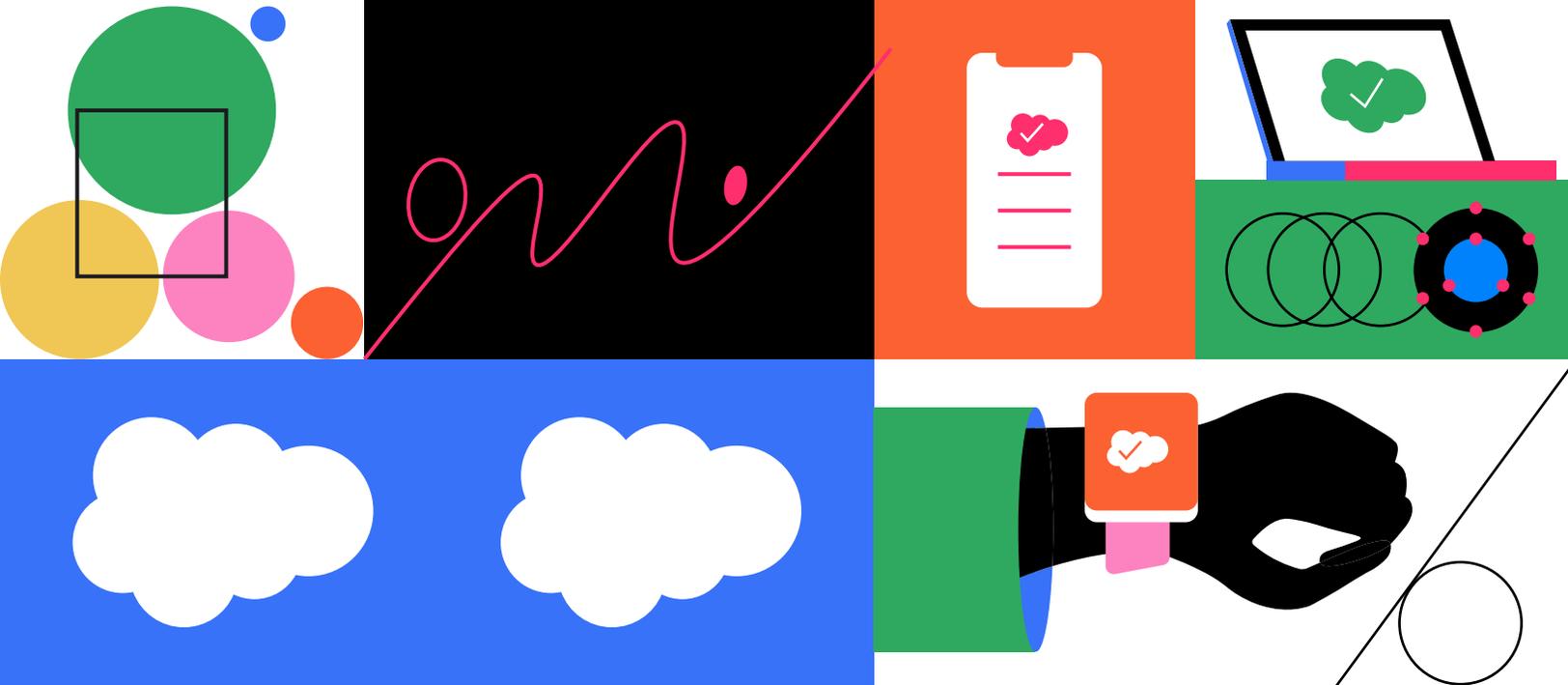
### **ENHANCES OPERATIONAL SCALABILITY**

By being on the hybrid cloud, banks can rapidly deliver key resources across the business, consequently provisioning faster solutions for business problems. This can significantly reduce time spent and resources needed to solve problems while enhancing agility in response to evolving customer and market demands. According to a recent report by IDC, worldwide internet data consumption across all sectors will grow from [33ZB in 2018 to 175ZB by 2025](#). Over 49 percent of this data will pass through the cloud. By utilizing cloud services, banks can drive customer satisfaction with the ability to scale for user demand.

A hybrid multi-cloud infrastructure offers many cloud options to solve rigorous banking needs across a diverse range of business functions, thereby enhancing operational scalability. For example, if a bank is exploring options to scale-up operations to improve customer satisfaction during peak hours, the bank can deploy a hybrid multi-cloud solution. This will enable an extension of the bank's on-premise infrastructure to the cloud during peak hours—thus augmenting customer service at reduced costs.

### **HEIGHTENS SECURITY**

Security remains a top concern for banks—hybrid models reduce the potential of data exposure by allowing banks to select workloads' location and data. By implementing a hybrid model, banks can easily conduct a full range security assessment, evaluating provider-specific service levels, cloud infrastructure, and customer application levels. With a multitude of tools and services available, along with CSP security certifications and constant evaluations, real-time governance can be achieved with the most up-to-date risk protection.



## APPROACHES FOR MIGRATING APPLICATIONS TO THE CLOUD

**M**oving to the cloud requires a clear cloud strategy laying out an approach to select correct cloud models and CSPs based on evaluation of business drivers, infrastructure, and existing architecture, to identify gaps and needs.

The decision to select the correct cloud strategy and application migration strategy is primarily based on a bank's existing application and infrastructure. This means the cloud application migration journey begins with the cloud readiness assessment phase and a cloud architecture evaluation.

Having an implementation roadmap and estimates for the installation of the cloud must be facilitated as part of an application migration strategy. This enables the selection of the correct migration paths and options for applications based on risks, goals, platform, and tools.

An incremental and adaptive approach to cloud migration allows banks to verify business drivers, architecture and infrastructure evaluation, and create an assessment report containing recommendations for improvement. Existing applications are analyzed for complexity, dependency on external applications, design elements, and user interfaces.

Based on assessment results, a deployment architecture is designed, and plans to migrate and execute are created. These may include an advanced security risks assessment and monitoring, and a proactive services maintenance of the migration process to the cloud.

## GET STARTED WITH THE CLOUD JOURNEY

**W**e believe banks must adopt a hybrid multi-cloud approach and, based on cloud readiness and risks assessments, adopt an incremental phased migration strategy, leveraging different cloud service models and migration types for a better ROI.

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