

Financial Services Spotlight

Elevating agility and security in the cloud

As consumer behavior undergoes permanent change, banks, insurance companies, and other financial services firms are relying on the cloud to build agility, security, and longevity into the core of their organization





FINANCIAL SERVICES ORGANIZATIONS HAVE EXPERIENCED a rapid, comprehensive shift in how business gets done. The COVID-19 pandemic has accelerated the pace of digital transformation and changed how, where, and when customers conduct financial transactions. Online banking and other financial services, remote workforces, and more user-focused and personalized products have become table stakes.

To manage change, financial services companies are turning to the cloud. Migrating business applications to the cloud has smoothed the transition from the physical to the virtual world, aided by tools that smooth the transition from on-premises to hybrid environments. Google Cloud VMware Engine, for example, makes it possible to move applications and workloads to the cloud without changing them. The result is familiar architecture rebooted for the modern cloud—along with all the advantages of scale, distributed IT, centralized management, and cutting-edge technology that a leading cloud provider brings to the table.

Table of Contents

Introduction	2
Banking on the Cloud	4
Delivering an Exceptional User Experience	4
Security Upgrades in the Cloud	5
Additional Cloud Benefits for Financial Services	5
Balancing Public Cloud and On-Premises Data Centers	6
Realizing the Benefits of Cloud Operations	6
Migrating via Google Cloud VMware Engine	7
Conclusion	8



The Great Shift: Accelerating Customer Expectations

The financial services industry is undergoing a profound shift. The COVID-19 pandemic has put the digital transformation already under way into overdrive as customers have changed how they conduct financial transactions. Having online banking and other financial services available anytime on any device has become table stakes for providers, and other seismic shifts have occurred. At the same time, financial services firms have had to operate with employees working remotely. And business models providing more-user-focused, more-personalized products have proliferated.

Against this backdrop, consumers continue to demand new and more innovative service offerings such as **conversational AI** for faster onboarding to new products and services; faster, frictionless settlements in insurance; and more from financial services companies of all types and sizes working full tilt to remain competitive.

Fortunately, cloud computing addresses many of the IT challenges facing traditional financial institutions, from application modernization to the relentless demand for innovation. For financial services customers, modern tools offer the potential to shift applications to the cloud without having to rewrite them. That means IT teams can continue to work in familiar environments while gaining scale and the benefit of leading technologies.

“Before the pandemic, financial services companies thought they were going to have more time for digital transformation,” says Jennifer Manry, VP of the Global Financial Services Industry Group at VMware. “But the pandemic has accelerated that, forcing companies to execute faster than ever—within days and weeks instead of months and quarters. With no time to waste, they are now shifting their focus to a post-pandemic world and how to support what is likely a permanent shift in customer behaviors and expectations.”

The cloud also has far-reaching implications for legacy systems. Migrating virtualized workloads to the cloud—moving applications and tasks that rely on them—can free up budget for the development of new products and services.

It seems clear that as consumer behavior continues to shift toward online and mobile services, financial institutions will have to rely on modern, cloud-based IT infrastructure to adapt and thrive. That’s because the cloud is the engine that will power innovation in new services creation, new consumer experiences, and more efficient ways of delivering customer service.

Customers now expect transactions of any kind to be as **simple to complete** as using their favorite mobile apps.



Banking on the Cloud

Greater economic uncertainty. An industry saturated with upstarts. Changing customer demands. More regulation. Intensified security threats. These are just some of the factors contributing to an ongoing upheaval in financial services. Not to mention stay at-home orders that precipitated a dramatic shift in workplaces everywhere. These shifts seem **here to stay**, at least for large numbers of workers, and many organizations have struggled to manage them.

“Due to the pandemic, financial service organizations had to quickly pivot to a work-from-home model for employees,” Manry notes. “Some institutions were simply not equipped for this shift to servicing customers and the workforce remotely.”

For example, institutions caught without the ability to conduct transactions away from the branch risked losing business to those better prepared with digital and online options for transactions such as e-signature acceptance for loan documentation.

The shifts to online transactions and remote work will endure into the foreseeable future as consumers, businesses, and regulators continue to adjust their behavior. Financial services providers will have to push through in record time digital transformations that, in some cases, have been slowly proceeding for years.

The cloud offers the potential for companies to meet these new demands online and adapt quickly to market changes. For example, many established financial services companies use cloud-based application programming interfaces (APIs) to partner with newer service providers to bring new services to their customers. Instead of looking at upstarts as competition, Manry says, more-established companies can view the new providers as sources of opportunity.

“They’re asking how they can integrate some of these payment services, for example, into their platforms in a way that’s seamless to the end user,” Manry says.

Delivering an Exceptional User Experience

Customers now expect transactions of any kind to be as simple to complete as using their favorite mobile apps. A **Forrester Research survey** of global financial services CIOs and SVPs backs up this point: Nearly 90% of the executives surveyed believe that improving their application portfolio is key to improving the customer experience and, ultimately, driving revenue.

Modern cloud-native architectures, technologies, and services—including containers that enable applications to run independently of operating systems and DevOps pipelines that enable developers to iterate on software in production—make it possible for financial institutions to quickly and securely launch new applications. They also enable them to take advantage of AI and data analytics to deliver a more personalized experience across channels while protecting customers with real-time fraud detection.

Great customer experience also extends to employees, both back-end and customer-facing. Some data points illustrate how this is playing out:

- Pre-COVID-19, only **7% of U.S. private sector** workers had employers that let them work remotely.
- This shot up to **58% of U.S. workers** working remotely at least part of the time during the pandemic, according to Gallup.
- Moving forward, 50% of financial services IT executives say 25% or more of their workforce will work away from the office three days per week, according to a **report** from MIT and VMware. Financial services firms must continue to provide high-quality work-from-home experiences to attract and retain employees.

As the financial sector moves to more flexible work styles and distributed networks, cloud-based digital workspace solutions can facilitate secure access to data, apps, and personally identifiable information across remote, branch, and edge environments while improving employee experience and productivity.

Using modern cloud-native application frameworks, **administrators can issue patches and software updates centrally and automatically across the organization.**



Security Upgrades in the Cloud

The changes wrought by the response to the COVID-19 pandemic also came with new risks for both consumers and financial institutions. **According to VMware Carbon Black**, the first three months of global lockdowns imposed in response to the pandemic saw attacks against financial services organizations more than double. Ransomware attacks aimed at financial services went up an appalling 900%.

Like other functions, cybersecurity can benefit from cloud deployments. Using modern cloud-native application frameworks, administrators can issue patches and software updates centrally and automatically across the organization. This reduces the risk of misconfiguration, errors, and security vulnerabilities.

Cloud-native endpoint and workload protection, cloud-based networking and security services, when integrated, can also improve security while hardening financial services organizations from future threats. That's because, as **McKinsey notes**, cloud migrations done right can help organizations reach greater security in the cloud than they had in on-premises operations, especially given talent shortages in the area of cybersecurity. The McKinsey report states that cloud service providers "have developed an array of new tools and methods to make cloud secure, in many cases requiring developers to take on the security responsibility, rather than relying on the traditional security team to carry the burden."

IT departments still need to stay on top of configuring cloud deployments appropriately, but they can also free up time for tasks that are more productive than managing security full-time. Such security gains at scale represent just one of the many areas in which migrating virtualized workloads to the cloud represents a game-changer.

Additional Cloud Benefits for Financial Services

Cloud migrations can help financial services in several other important ways, enabling organizations to:

- ▶ **Capture revenue** from new apps and services, for example, through APIs that enable financial services companies to connect their customers to services from partners such as lenders, digital payments providers, and others they may not have had access to otherwise.
- ▶ **Leverage AI and data analytics** to provide more of what customers want and need. For example, AI can offer conversational help via chat to deal with routine customer interactions while freeing human customer care agents to handle more-complicated issues.
- ▶ **Foster operational resilience** through distributed architecture that's resistant to natural disasters, provides enhanced security, and reduces technical debt incurred through legacy on-premises systems.
- ▶ **Modernize customer and employee-facing applications** to improve access, engagement, and user experience.

"One of the great things about modern applications and cloud services is that together they enable financial service organizations to quickly meet customers and employees where they are with new features, products, and services," Manry says. "The result is increased customer loyalty and increased satisfaction for employees."

The cloud offers the potential for **greater resilience** for disaster recovery.



Balancing Public Cloud and On-Premises Data Centers

Cloud migration need not be an either/or proposition, Manry observes. Organizations don't have to remain tethered to the cloud for all workloads after migration; they can also keep sensitive applications and data on-premises.

"A lot of financial services companies operate in a hybrid model, where they move workloads and applications into the cloud where they can but where it's absolutely critical, keep them internal," Manry explains.

In other words, financial services companies can keep some applications and workloads on-premises while also leveraging the power and scale of the cloud where appropriate—and even migrate back as needed, giving them the best of all possible worlds. For example, Manry explains, VMware Cloud provides a consistently stable experience between public and private clouds. That enables organizations to leverage their existing operations talent while building new cloud-specific skills. "You don't have to scramble to bring in all-new teams of cloud operations experts," Manry adds.

That's a big deal at a time when skilled IT professionals are in short supply and the number of clouds in use at any given financial services organization is multiplying. Deploying tools such as those from VMware gives operations teams familiar ways to manage the complexity of multicloud and hybrid cloud environments.

"With the right strategic IT partner—one that delivers modern cloud infrastructure and operations both on-premises and across public cloud providers—the same teams managing your data center can also manage your multicloud operations. You're not only upskilling existing talent; you're investing in their careers," Manry says.

Realizing the Benefits of Cloud Operations

Organizations can turn to leading cloud providers to extend and scale on-site infrastructure and operations to meet fluctuating demand and handle unexpected disruption, such as from natural disasters. The cloud offers the potential for greater resilience for disaster recovery through distributed backup operations, decentralized storage in the cloud, and other mitigation options. Moving call center functionality to the cloud with the help of virtual desktop infrastructure can also empower a remote and distributed workforce with secure access to corporate data and apps.

Finally, large public cloud providers can help organizations meet regulatory compliance requirements across regions and countries. For example, third-party auditors ensure that the Google Cloud complies with regulations applicable to the financial services sector worldwide.

Financial institutions are also looking for enterprise-grade Cloud Management capabilities that span across the datacenter and the cloud. Solutions such as VMware vRealize Cloud Management can be implemented with the Google Cloud VMware Engine to deploy and operate your applications, infrastructure, and platform services, from the datacenter to the cloud to the edge, so you can scale and grow.

Customers now expect such services as opening new accounts, issuing loans, and providing customer support to be **available on their devices 24/7**.



Migrating via Google Cloud VMware Engine

Google Cloud VMware Engine helps financial services companies seamlessly migrate and run VMware workloads natively on Google Cloud. With Google Cloud VMware Engine, organizations can connect to Google Cloud services; access a robust third-party cloud ecosystem; and continue to use the same VMware tools, processes, and policies their teams know in the Google Cloud environment.

Financial services companies can take advantage of Google Cloud VMware Engine services for a host of specialized services and benefits, including:

► **Business insights with BigQuery**

Google Cloud's serverless data warehouse leverages data to quickly and affordably deliver valuable insights for compliance reporting, new product development, fraud detection, and more.

► **Optimized IT operations**

Lifting and shifting VMware applications to Google Cloud enables organizations to match capacity to demand and unify management across on-premises and cloud systems. It also enables them to utilize **Google Cloud's operations suite** to intelligently analyze operations for improved insights and easier troubleshooting.

► **Increased agility and lower operational costs**

Google Cloud VMware Engine gives financial services companies a distributed architecture and centralized control for applications they've already been using to aid such critical functions as disaster recovery and backup.

► **Customer-centric, data-driven operations**

Insights available from data analytics in the cloud help financial services companies understand what customers need, when they need it. Such information helps improve customer service and drives product development, by highlighting trends in customer transactions for managers to act on before they can spot them on their own, for example.

► **Digital and omnichannel revenue growth**

Especially in the wake of the COVID-19 pandemic, the branch can no longer be the center of banking and other services. Customers now expect such services as opening new accounts, issuing loans, and providing customer support to be available on their devices 24/7. The cloud provides the necessary services and flexibility for digital growth across all channels.

Migrating business applications to the cloud can **help financial services companies cope** with the rapid pace of change.



Conclusion

The challenges brought about by the events of 2020 fast-forwarded digital transformation already in progress, even for slower-moving firms, including many insurance companies. But financial services companies unprepared to manage the shifts in consumer behavior and business operations will continue to struggle. They will lose ground if they can't achieve the agility imparted by recent innovations.

Migrating business applications to the cloud can help financial services companies cope with the rapid pace of change. Especially for companies with the technical debt of legacy IT systems, working with cloud-based systems can bestow some of the flexibility that startups enjoy, while maintaining the benefits of organizational maturity. "You are able to redirect resources that otherwise would take care of this complex infrastructure that you've built over the last 25 years and can move on to other projects that are going to help you get in front of your competition," Manry explains.

For financial services customers, Google Cloud VMware Engine makes it possible to move applications and workloads to the cloud without changing them. The result is familiar architecture rebooted for the modern cloud—along with all the advantages of scale, distributed IT, centralized management, and cutting-edge technology that a leading cloud provider brings to the table.

"You can automate things if you have scale," Manry notes. "Patch something once, and you can proliferate it across your environment. And when you move applications with Google Cloud VMware Engine, you can leverage Google Cloud services on the back end such as artificial intelligence and machine learning." That last point is key, since **nine out of 10** financial services leaders believe they must increase AI investments over the next four years.

All in all, migrating virtualized workloads to the cloud, particularly with Google Cloud VMware Engine, gives financial services firms the scale, speed, and agility they need in order to complete digital transformation in a changed world.

To learn more about how businesses can build agility and resilience in the cloud, visit <https://cloud.google.com/vmware-engine>.