

# MODERNIZE BANKING PLATFORMS

Transform Existing Data Centers into Flexible, Scalable Foundations to Drive Top-Line Growth

## Meet the Demands of Digitally Empowered Customers and Employees

Disruption is here. The consumerization of IT has customers and employees seeking simpler, more personalized experiences from every part of their lives and that includes traditional financial services organizations. At the same time, competition in the financial industry is heating up with FinTech firms collectively chipping away at every aspect of banking and new entrants gaining banking licenses for Digital Only banking. The continued introduction of new business models together with mandates requiring the opening of banks' core customer information systems through APIs to third parties cannot be ignored.

The right foundation can help ensure financial firms are well positioned for success as they navigate critical technology investments. Analysts predict modernized infrastructure, application transformation, high availability, secure transaction-based services, advanced analytics/BI, hosted cloud services, and workload portability across multi-clouds will be the top technology drivers for the next four-to-five years in financial services.<sup>1</sup> The reality now is that serving customers through digital channels, automating operations and launching modern banking apps are critical to staying competitive and staying in business in the longer term.

Throughout history, traditional banks have evolved from paper-based ledgers held physically in a branch, to online/real-time 24x7 access from pretty much anywhere in the world. Banks have embraced new ways of working yet have mostly continued to enjoy the advantages of location, familiarity and customer loyalty.

With the consumerization of IT, the abundance of connectivity to the internet and always-available service trends coupled with branch consolidation and new and unexpected competition, banks are increasingly being undermined in their traditional branch banking leadership. Banks must embrace transformation to reach their goal of doubling revenue from digitalization by 2020. Despite significant ongoing activity in financial technology, including banks acquiring startups and developing their own technology incubators, financial institutions seem unprepared for the events that are coming.

Mission-critical upgrades are required to extend digital services through infrastructure improvements and cloud while lowering costs and increasing agility. CapEx and OpEx savings are especially compelling for banking as IT shifts towards increased commoditization and gearing towards consumption based charging models. Despite this, the Bank and CIO remain accountable for service availability and data protection. Virtualization and cross-cloud management enable scalability, gives predictability, promotes agility, and speeds delivery of products and services at the mobile point of engagement, giving the opportunity to dynamically move production workload at time of need while protecting customer data from both external and internal cyber events — all of which are the new table-stakes for banking IT.

### OVERVIEW

Digital advances in IT infrastructure are empowering financial services organizations to securely modernize and mobilize to achieve growth goals. VMware modernizes banking platforms by addressing the greatest need—the evolution of the data center foundation into a software-defined IT architecture. VMware data center solutions improve IT performance, availability, and scalability, increasing efficiencies, protecting against cyber threats, and supporting modern workflows while reducing capital and operating expenses and streamlining compliance.

### BENEFITS

- Achieve growth and profitability goals with modern, digital bank infrastructure
- Increase IT agility by broadening the automation of bank operations
- Improve efficiencies by providing a path for traditional app transformation and deploy modern apps faster

<sup>1</sup> VMware Banking Overview, February 3, 2017.

### Data Center Innovation Requires More Than Server Consolidation

Financial institutions have significant needs to improve the speed and flexibility of their IT infrastructure—without increasing physical space. While server virtualization has helped reduce power, cooling, and footprint costs worldwide for financial services organizations, more must be done to connect applications and data securely across clouds and devices to maintain competitive advantage in the new mobile and online consumer marketplace for banking and related financial services where value is being created or destroyed by data analytics, algorithms, processes, new digital currencies, and through the power of the brand.

### VMware Solutions for Banking Platform Modernization

VMware empowers digital transformation across financial services organizations, large and small, around the world. VMware solutions advance data center modernization that supports hybrid cloud and digital workspace investment, while transforming security. Because of the impact of mass digitization and mobile consumerization, financial services institutions must simultaneously transform data, core processes, and workflows. VMware solutions reduce IT complexity and accelerate digital transformation, simplifying operations with common management across infrastructure, clouds, apps, and endpoints. VMware solutions enable banks to increase revenue by ensuring the delivery of financial services information anytime, anywhere on any device.

### Adopt Digital Bank Infrastructure

A modern data center begins with modern thinking and infrastructure. That means building a data center that is virtualized, software-defined, and automated, with a consistent operational model for infrastructure and application delivery. This could and increasingly should embrace cloud first principles where they make most sense, and can continue to be fully integrated in to the existing operation with little or no changes required if the app is running on-premises or in cloud. Modern data center advantages can be compelling but often difficult with siloed IT management and operations preventing firms from making critical improvement investments and achieving the full benefit potential.

To reduce complexity, increase efficiency, and lower costs, VMware provides two paths for financial institutions to modernize their data center infrastructure. VMware Hyper-Converged Infrastructure (HCI) enables the convergence of physical storage onto industry-standard x86 servers, providing a building block approach with scale-out capabilities. It is a unique, software-defined approach, leveraging the hypervisor to deliver compute, storage, and management in a tightly integrated software stack with full instrumentation to deliver optimum service performance. VMware's industry-leading software for HCI is delivered on the broadest set of consumption options, from VCE VxRail™, a turnkey HCI appliance, to more than 150 certified platforms in the form of VMware vSAN™ ReadyNode. IT teams gain high performance and storage elasticity from vSAN while automating the deployment, configuration, patching, and upgrading of the entire VMware stack with VMware SDDC Manager.

Financial services organizations can take HCI to the next level to include networking with VMware Cloud Foundation™, the unified SDDC platform that brings together VMware vSphere®, VMware vSAN and VMware NSX® into a natively integrated stack to deliver enterprise-ready cloud infrastructure for the private and public cloud. NSX drastically simplifies network management and enables higher levels of security by leveraging micro-segmentation. It also enables part or all of the

application to be seamlessly running in a cloud provider's data center, providing elasticity and new disaster recovery options.

With VMware's solution, it's now possible to reduce CapEx, standardize infrastructure, and improve security, business continuity, and scalability—all by reducing complexity through virtualization. Adira Finance benefitted by evolving its data center, serving all offices with faster deployment and services for customers at reduced cost. Chong Hing Bank also consolidated two data centers into one to maximize utilization and improve procurement time while enabling disaster recovery.

### Automate Bank Operations

The introduction of a software-defined data center also opens the door to improving IT performance and efficiency. Financial services firms are broadening IT automation with VMware vRealize® Suite, a cloud management platform that optimizes the performance, cost, and efficiency of data center systems around the clock. vRealize Suite correlates data from compute, storage, networking, and apps across multiple cloud environments in a unified management tool that provides single pane of glass visibility, simplifying IT management and improving service recovery, service performance and continuously improving service quality.

Together with NSX, VMware vRealize® Automation™ not only delivers apps and compute services but attaches network and security services to workloads using a policy-driven approach. The benefits of this combination are clear. Banks can now fully automate IT service delivery to rapidly respond to needs, as well as improve agility and operational efficiency at the right size and service level for each task. While improving IT service delivery, financial services organizations can lower infrastructure costs and increase asset utilization.

VMware solutions provide sophisticated automation that lets financial services organizations break down the bottlenecks that are stalling the delivery of IT services. For example, London Capital Group is using VMware's solution to automatically attach policies that enable faster provisioning. Similarly, Worldpay has automated provisioning to spin up development environments quickly and more affordably, leading to faster time to market. The financial payments provider has added virtual networking to its environment for even greater flexibility and speed.

### Run Modern Apps and Rationalize Traditional Banking Apps

In financial services, time is money. That's why every institution is racing to transform traditional apps and simultaneously roll out new ones quickly and more frequently, while maintaining security and control. Because today's cloud-native apps and IoT technologies are increasingly developed in a Continuous Delivery/DevOps methodology which requires faster time to provision environments often employing container technologies and micro-service based architectures, they have unique operational requirements that can pose challenges.

VMware solutions enable financial services IT to evolve traditional apps through virtualization and run modern apps that power innovation and agility—backed by the security, reliability, and governance financial enterprises demand. They help developers boost productivity by delivering open APIs, infrastructure, and application environments sooner, with greater agility. With VMware, financial services organizations can take advantage of enterprise-grade networking, storage, and security across every application—whether traditional, cloud-native, or a hybrid solution. vSphere provides a legacy-to-modern infrastructure while

the VMware Photon™ Platform enables financial services IT teams to build and run container-based, cloud native apps without compromise.

HedgeServ deployed VMware® Integrated OpenStack to easily add capacity and performance to keep pace with its growth. The solution gives HedgeServ a scalable on-premises cloud that makes developers more productive and allows for more continuous delivery. The company also uses VMware vRealize® Log Insight™ log management to monitor the platform. Faster application deployment helps the financial firm maintain its edge.

“At the end of the day,” explains Isa Berisha, senior director, platform and application infrastructure engineering at Hedgeserv. “We can make our customers happier when we can get our code deployed faster. And this determines if a customer comes to us or goes to a competitor.”

Berisha wanted to streamline application delivery workflows and provide developers with a platform that is more conducive to agile development. Specifically, he wanted a cloud service that would allow HedgeServ’s developers to provision virtual machines and resources on demand, without waiting for the IT department to provision and deploy them. Today there are over 18 applications under development; in two years, HedgeServ expects to develop twice as many. As Berisha plans for that future, he must accelerate HedgeServ’s application delivery without adding complexity.

### [Learn More about VMware Data Center Modernization Solutions for Financial Services](#)

Digitization is fundamentally changing how customers engage and organizations deliver financial services. Today’s banks are challenged to optimize and scale existing IT infrastructure to meet increasing customer demands. VMware meets new and changing customer and workforce requirements by delivering software-defined IT infrastructure with a common operational model across clouds, reducing complexity and ensuring IT agility, scalability, and security in support of modern apps and workflows. VMware’s scalable, flexible, and security capabilities enable financial services organizations to meet consolidation requirements, modernize data centers, and innovate IT for greater impact.

Learn more at <http://www.vmware.com/solutions/industry/financial-services.html>

