



## U.S. BANK GETS LEAN, BECOMES DEVELOPER FRIENDLY, AND MOVES AT THE SPEED OF MODERN BANKING

### INDUSTRY BANKING

### SIZE 26K EMPLOYEES

### GEOGRAPHY REGIONAL (U.S.)

### KEY CHALLENGES

- IT was focused on operations and administration
- Technology and process inefficiencies were roadblocks to application development
- They needed to “future proof” IT

### SOLUTIONS

- Design, build, and deploy a scalable private cloud:
  - VMware vCloud Suite® solutions
- VMware Professional Services:
  - IaaS and PaaS solutions
  - DevOps and cloud-native apps transformation

### BUSINESS BENEFITS

- Infrastructure provisioning reduced from 90 days to 20 minutes
- CapEx savings of \$40M over 5 years
- Capacity increased by 34%
- OpEx reduced by \$10.7M a year
- 84% of all workloads in cloud
- Physical server count reduced by 86% by 2018

This U.S. regional bank’s legacy IT environment was simply not equipped to support the rate of new service development required to be competitive. The mid-size bank was never going to have the IT budgets and staffing resources that the larger national banks had. In order to compete at that level, they were actually going to have to get smaller, leaner, and more agile.

Their major culture shift was to move away from a focus on infrastructure operations and maintenance to a focus on customer-oriented application development. While it was still important for the bank to retain its warm, small-town feel in the branches, it was imperative that they innovate. Application development capabilities needed to be focused both on enhancing existing products and processes as well as accelerating development for new digital services, particularly in the credit card and online banking business units.

The shift in focus to agile application development was going to require multiple steps, starting with a major overhaul of existing systems in the data center. Automation was going to be key.

### Phase I: Streamline IT Infrastructure

Without a highly virtualized and automated infrastructure, fast and agile application development and deployment is all but impossible. The first step to enabling high-speed development was to simplify and modernize their data center.

The bank had virtualization in place, but operations were not optimal. Virtual machine sprawl meant that administrative processes were highly manual and led to a lack of consistency in configurations. There was no real structure or ability to automate.

The CTO had brought on a new VP/Infrastructure with a remit to re-engineer the bank’s IT operations. The new VP swiftly determined that IT would need to:

- Increase automation to get efficient and get lean
- Optimize or re-engineer processes
- Shift its culture to one that embraced risk and viewed developers as its most important customers

To kick things off, VMware® Professional Services delivered a comprehensive evaluation of the VMware vSphere® environment, getting that environment updated, configured properly, and sized correctly. Next they were able to bring in automation tools like VMware vRealize® Automation™ and VMware vRealize® Operations™.

## Phase II: Create an Application and Developer-Oriented Environment

With the streamlined infrastructure in place, the bank could begin the transition to a service-oriented environment.

Through interviews and collaborative workshops, the VMware Professional Services team worked with IT operations, application development, and business unit stakeholders to identify business needs and map them to the required IT capabilities. This allowed infrastructure teams who historically had limited insight into the business unit roadmaps to understand what capabilities would be needed as part of a longer term plan.

Roadmaps took into account needed changes across people and process, not just technology.

The next step was to develop infrastructure-as-a-service (IaaS) capabilities, enabling IT to offer highly scalable infrastructure resources that internal customers could order and adjust on demand. Next they would expand into platform-as-a-service (PaaS), allowing developers to develop, run, and manage applications without the complexity of building and maintaining the infrastructure typically associated with application development.

Organizational changes were essential to the success of this new way of delivering IT services. A Cloud Operations team was created, ensuring they had the right capabilities, skills sets, and support to operate as a world-class service provider.

Process re-engineering was also essential: A list of process automation candidates was compiled and then prioritized, focusing on the highest impact processes first.

Working with VMware Professional Services, the bank delivered IaaS and PaaS capabilities to their development teams in less than a year.

## The Results: Immediate Savings, Increased Agility, and an Improved Customer Experience

The customer experience for the bank's internal users of IT services is now dramatically different. IaaS and PaaS services are now available with the click of a button, without sacrificing any of the control or security that IT operations need as a regulated financial institution. Eighty-four percent of all workloads now run on a private cloud, and they're on track to reduce their physical server count by 86 percent within three years.

Manual processes that used to cause bottlenecks for application development are now fully automated. One process took 90 days to stand up a new environment before a developer could write a single line of code. This process was ultimately cut down to 20 minutes.

Accelerated infrastructure provisioning is just one of the many benefits that the bank is already seeing as a result of this transformation. These include:

- Reduced application stack provisioning times from five days to under 30 minutes
- Creation of over 700 application development and support environments
- A targeted savings of \$40M in capital expenditure over the next five years, even as capacity has increased 34 percent
- A reduction in operating costs of \$10.7M a year

The bank's IT organization is now operating more efficiently, enabling more agile development and continuing to transform themselves into an innovative, strategic partner to the business. This is all being accomplished while drastically reducing the operating costs and capital expenditures, freeing up future budgets for additional innovation.

The lines of business within the bank now have the ability to turn ideas into revenue-generating opportunities quickly. As an example, slow turnaround times for credit line increases were a problem. The bank built a new platform quickly that could simultaneously pull all relevant customer information and perform an automated risk analysis. In this manner, the bank was ready to address a customer line increase request before the request even occurred.

### Looking Ahead — Ready to Move at the Speed of Modern Banking

The bank continues to work with VMware as it transforms itself into a competitive, modern bank.

VMware team members are now helping the bank build out customized PaaS stacks with multiple functionalities and develop the capability to work in Linux-based environments. At the same time, VMware consultants continue to work with the business units to understand their long-term roadmaps, ensuring that IT evolves its infrastructure in parallel with the bank's business needs.

VMware's DevOps experts are also engaged to help improve the bank's continuous delivery process for applications. This is especially important in their goal to attract and retain top-tier talent, since the best developers and architects are attracted to the new service models that now lie at the heart of its approach to IT.

With a streamlined infrastructure, a service-oriented operating model and organizational structure, and a developer-focused culture, this mid-size regional bank is now ready to compete with its larger rivals as a bank of the future.

### Learn More

For additional information on how VMware solutions can help financial services organizations, visit [www.vmware.com/solutions/industry/financial-services](http://www.vmware.com/solutions/industry/financial-services) or contact your VMware representative.

