CASE STUDY

Top-Ten Banking Institution Transforms & Migrates Data Center

Data center strategy saved millions and transformed operations for innovation and growth.

Client:
Our client is a top-10 community banking provider offering commercial and retail banking, insurance, corporate banking, specialized lending, wealth management, asset management, investments, and mortgage solutions. With more than 2,000 financial centers, our client is one of the largest financial services companies in North America.

Executive Summary

Due to strong growth and a smart acquisition strategy, one of the largest community banks in the U.S. was outgrowing its primary data center. At risk of seeing its future growth constrained by capacity restrictions, this client needed a strategy and an IT infrastructure capable of supporting growth and scaling long-term.

They built a new state-of-the-art data center equipped with sufficient power infrastructure, network bandwidth, and scalable storage for growth. To displace legacy infrastructure, they aggressively invested in new technologies. Their approach saved millions monthly and reduced future capitol costs, while increasing the speed of IT service delivery to lines of business by 40%.

dkGroup DAVID KENNETH
The difference is focus.

Business Objectives:

- Prepare for future growth and market expansion.
- Optimize infrastructure and operations with minimal capital expense.
- Establish compliance agility that accommodates growth.
- Sharpen capacity for innovation and agility.

Industry:

Financial Services

Fortune Rank:

A Fortune 500 company

Project Goals:

- Maintain current service availability.
- Move all production workloads from source data center to new data center.
- Avoid capital investments in data center power infrastructure.
- Meet regulatory requirements associated with anticipated growth.
- Ensure future growth is not constrained by current data center capacity.

Before Data Center Migration

Our client's data center portfolio was a complex network of sites with thousands of servers, appliances, and applications supporting banking services across the U.S. It was also fast-approaching the $250 billion regulatory milestone that mandates strict government regulations for financial institutions in the U.S. With outdated legacy infrastructure, our client struggled to achieve the zero transaction loss required by strict federal banking regulations.

They were quickly approaching capacity with space, power, and network bandwidth. As a banking institution servicing hundreds of thousands of customers across the U.S. twenty-four hours per day, our client's business could not tolerate disruptions to operations.

The goal was to deliver a flexible, reliable, cost-efficient infrastructure that could meet strict security requirements and business growth a decade from now. In a rapidly changing financial services market, it also required bold and flexible choices to ensure they remained competitive and in step with evolving market needs. The solution: build a new data center from the ground up.

After engaging David-Kenneth Group, our client began a collaborative effort to develop a data center transformation and migration strategy. Executing a project of this size and scale, IT and business stakeholders needed to be on the same page to align business and technology goals.

Every part of the business organization and IT operations came to the table to understand impact, concerns, and opportunities. Consistent communication was key for the leadership team, and stakeholders were kept informed throughout the program to mitigate concerns and encourage institutional buy-in.

The project was executed in a phased approach spanning three years. The client's critical business services continued as usual throughout migrations, and 100 percent were executed with zero downtime or disruptions to operations.

The Migration Project

Our client needed an accurate view of all assets in their operating environment, but poor data quality limited their ability to make sound business decisions. We executed an exhaustive IT infrastructure discovery of all IT assets and dependencies in the client's data centers. Supported by an updated CMBD, our client was able to make critical business and technology decisions affecting the project.

Rigorous evaluation of performance, ability to meet scale, total cost of ownership, and supportability informed technology selections. We created system designs hand-in-hand with the client and vendors to ensure future compatibility with their roadmap and operational stability.

Prior to migration, we transformed and modernized assets affecting over ten thousand servers and implemented a new storage solution. These efforts provided a firm foundation for business performance in the new environment. The data center migration itself required multiple data center migration methods, including physical to physical (P2P), virtual to virtual (V2V), physical to virtual (P2V), limited lift and shift migrations, and limited greenfield builds, along with a complex network of partner connections.

All production workloads and supporting compute infrastructure were successfully migrated, totaling 6,000 servers and 830 applications. Additionally, high-performance applications experienced no performance degradation during migrations; technology enhancements were made to achieve long-term service availability goals; and a new DMZ hardened their security model.

Results After Migration

All production workloads were successfully migrated from the source data center to the new data center, increasing speed of IT service delivery to lines of business by 40 percent. Additionally, future IT capital costs were reduced 60 percent by standardizing

compute and storage platforms, increasing utilization of virtualization technologies, and driving a rigorous, aggressive approach to investing in new technologies to displace legacy infrastructure.

In addition to cost savings and tangible improvements in service delivery, security, and compliance, our client also experienced significant intangible benefits. These included an integrated change-control process to maintain CMDB integrity, standardized architectural designs and approval processes, and a tightly coupled IT governance model to foster improved IT and business relationships. Finally, the project resulted in meeting key business and project objectives, including:

Results Post Data Center Migration

- $650,000 in monthly savings.
- 40 percent increase in speed of IT service delivery to lines of business.
- 400 percent increase in network bandwidth capacity.
- Achieved regulatory compliance with scalable, resilient network design.
- Transformed operating environment expected to yield a 60 percent reduction in future IT capital costs.

Positioned business for growth and acquisition

Data center facility capacity was at a premium before the start of the data center transformation and migration project. To make room for projected business growth, our team increased network bandwidth capacity by 400 percent. Additionally, they deployed a scalable storage model and doubled blade capacity, increasing CPUs (central processing units) from 7,800 to 18,000.

Achieved regulatory compliance with scalable network design

Our client's anticipated growth required a data center that could meet increased regulatory requirements. We implemented a more scalable and resilient network design that could support the zero transaction loss mandated by federal guidelines. Additionally, our team designed a dual scalability storage model and freed up space at the source data center for a future data-bunker deployment.

Optimized power while saving millions annually

Despite the size and scale of the project, our client achieved significant cost savings while remediating data center power infrastructure limitations in its source data center. They

saved $8 million in annual costs by migrating to a state-of-the-art data center with sufficient power infrastructure to support anticipated growth across all platform requirements.

Summary

This data center migration project was executed in a phased approach spanning three years. The client's critical business services continued as usual throughout migrations and were executed with zero downtime and zero operational disruptions.

IT infrastructure discovery proved critical to the success of the migration, providing the migration team with clean data and a 360-degree view of a large and complex operating environment.

An integrated client/partner team allowed for faster, more frequent migrations, while a converged operations and engineering team streamlined migrations and facilitated hand-off to operations at the conclusion of the project.

Our client has built a solid foundation for value-creating growth in the foreseeable future and is fully equipped to respond with bold, commanding choices in a rapidly changing industry.

Without your leadership, guidance and process maturity, we would not have been able to accomplish what we have accomplished this year. We are very fortunate to have you part of our team and want you to know that we truly value your contribution. You are helping us build the foundation of this company."

—IT Strategic Engineering Senior Manager
Senior Vice President

1997 Annapolis Exchange Parkway | Suite 300 | Annapolis, MD 21403
888.681.1988 | www.DavidKennethGroup.com

dkGroup DAVID KENNETH
The difference is focus.