

Consolidating Financial Data Center Operations, Addressing Remote Workforce Transitions With Smart Visibility

Assuring Business Continuity in Transformed Data Center, ACI, VDI, and Mobile Application Environments With NETSCOUT

Overview

The Challenge

- Long-term data center transformation, network upgrade, Cisco ACI, and mobile application rollout demands
- Near-term remote workforce transition taxing VPN and VDI environments, with bandwidth upgrade only leading to latency

The Solution

- nGeniusONE® Service Assurance platform
- InfiniStreamNG® appliances
- nGenius® 5010 packet flow switches supporting 40G network speeds

The Results

- Successful Data Center consolidation with uninterrupted service delivery to customers and users
- Agile IT responsiveness in addressing new remote workforce and mobile application rollout demands



Customer Profile

This leading financial group enjoys a significant presence in multiple global markets, offering a portfolio that includes investment, retail and commercial banking, and wealth management vehicles. Their business is growing both organically and through acquisition, and the group has added new regional service hubs to better support U.S. customers as a result.

In a further move to support their small business and individual investors, the group pledged to commit millions of dollars to local communities and small businesses to help them manage recovery from the commercial and personal financial difficulties materializing as a result of the COVID-19 pandemic.

The Challenge

With this exponential growth in post-acquisition business operations, financial group leadership commenced review of existing data center, network, and application service investments, tasking the information technology (IT) team with the following related projects:

- Consolidating several production-level Data Centers to two on-premises corporate locations, with this multi-phase effort including lifting-and-shifting application workloads without interrupting financial service delivery or impacting high-quality user experience
- Upgrading to a Cisco® Application Centric Infrastructure (ACI) software-defined networking (SDN) architecture and 40G network speeds to improve deployment flexibility and performance
- Deploying a new mobile application to increase the use of electronic banking for commercial and personal financial transaction processing

While the veteran IT team had long used the nGeniusONE Service Assurance platform in their legacy environment, they knew additional NETSCOUT® data sources would be required to provide visibility into performance at these consolidated Data Center locations and support both their upgraded network speeds and ACI architecture.

While IT had the benefit of long-range planning for these projects, the arrival of COVID-19 offered no such luxuries. Near-term issues surfaced in the virtual private network (VPN) supporting remote IT operators, as well as the Citrix virtual desktop infrastructure (VDI) supporting exponentially higher numbers of at-home employees accessing business-critical applications. While VPN and VDI were long-established environments, they were designed to support a fraction of the employees transitioned to remote offices. As a result, the IT team proactively upgraded network bandwidth, only to see performance latency increase. As a result, the IT team identified VPN/VDI performance as another area requiring improved real-time monitoring to identify remote performance issues.

Solution in Action

The IT team addressed these long- and short-term challenges by:

- Installing additional InfiniStreamNG (ISNG) appliances at the Data Centers to monitor and transform network packet traffic moving to/from these locations into smart data used by nGeniusONE's application performance analytics to provide real-time intelligence leveraged across the collective Data Center Consolidation and Digital Transformation projects.
- Implementing nGenius 5010 packet flow switch (PFS) appliances to support 40G network speeds at the two Data Centers. The PFS 5010 provides the abilities to aggregate, replicate, and manage the flows of traffic throughout the network to

efficiently deliver specific network traffic access to downstream monitoring systems used by the IT Security teams. In addition, the PFS 5010 supports high performance in the ACI SDN environment by monitoring both logical and physical connections in the Data Centers.

With these additional data sources providing much-needed visibility into the transformed Data Center environment and generating traffic-based smart data for use by nGeniusONE performance analytics, IT used familiar Service Dashboard, Monitor, and Service Dependency workflows to successfully address the following performance challenges:

- Consolidating Data Center operations and migrating financial application workloads: IT used nGeniusONE as a common toolset to assist them in pre-migration, migration, and post-migration activities and assure the team that applications has been successfully transitioned for production-level operations.
- Assuring mobile application rollout success and financial transaction performance: IT is provided with single-pane snapshots of mobile application availability and user experience of all these services. Using nGeniusONE for application performance management functionality, they are gaining real-time monitoring of the product interdependencies for rapid, secure app performance on customer smart devices.
- Improving VPN/VDI performance: NETSCOUT personnel used nGeniusONE views to show IT Security Engineering that VDI performance latency did not surface as a result of the network upgrade, but instead related to Citrix NetScaler routing issues. Using nGeniusONE single-pane views into the Citrix environment as well as on-board packet-based forensic drilldowns to identify the true source of latency impacting remote employees, the IT Security team subsequently reconfigured Citrix NetScalers to reduce latency and improve remote employee experience.

The Results

Successfully migrating financial services operations in this complex Data Center consolidation without disruptions to customer transactions or employee productivity represented a major win for this financial group's business reputation in the expanding regions they serve. The IT team's ability to successfully manage multiple long- and short-range digital transformation challenges helped sustain their capabilities, contributions, and solid reputation within the business.

Successfully introducing the financial mobile application in the planned timeframe also offered the benefit of easing customer business transactions after COVID-19's arrival, providing anytime, anywhere access to needed account transactions.

Extending their commitment to NETSCOUT as their service assurance provider enables the business to more fully realize return on investment, with nGeniusONE leveraging additional visibility into their consolidated Data Center operations. Additionally, the group also benefits from capital and operating expense efficiencies by using a single-vendor approach to address their long- and short-term Data Center Consolidation and Digital Transformation project challenges.

LEARN MORE

For more information about NETSCOUT Business Continuity and Data Center Transformation solutions, visit:

<https://www.netscout.com/businesscontinuity/data-center-transformation>



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