NETSCOUT

Financial Services Company Assures Services to Customers & Employees During Data Center Transformation

With NETSCOUT Visibility Into Business & Financial Apps in Cisco ACI & Cloud

OVERVIEW

The Challenge

- Needed visibility into new data center transformation project with Cisco ACI technology
- Ensure quality end user experience in customer-facing network with trading apps

The Solution

- nGeniusONE® Service Assurance platform and nGeniusONE Global Manager
- InfiniStreamNG® appliances
- nGenius® 5100 packet flow switch

The Results

- Reduced downtime with lower MTTK and MTTR for both employee- and customer-facing application services
- Improved planning and budgeting with trended information from actual user activity

Customer Profile

This international stock exchange and financial information company is a diversified market infrastructure and capital market business with a well-established reputation in supporting equity, bond, and derivative market securities. With the dedicated contributions of its thousands of employees, the exchange's technology platforms offer access to capital markets for businesses and private investors worldwide. They are also a well-respected developer of high-performance trading platforms and capital markets software used by many organizations for trading, surveillance, and post-trade technology.

The Challenge

The organization had gone through a period of substantial growth due to additional customers and increased exchange volume, combined with several mergers and acquisitions. As a result, in order to continue to deliver technology and services at the high level they were known for, the IT organization was in the process of a strategic data center transformation. Central to this transformation was a new data center based on Cisco Application Centric Infrastructure (ACI), along with targeted migration to public cloud, initially to Amazon Web Services (AWS).

Visibility and security of the new data center, the several other data centers around the world for regional access throughout North America, Europe, and Asia, as well as their customer facing network were of paramount importance. As a result of aggressive expansion and acquisitions, the IT team had inherited a very diverse range of technologies and vendors, sometimes providing similar services, although delivering inconsistent experiences for the end users. The problem only snowballed as the organization relied on more parties for pieces of their infrastructure. The boundaries of responsibility between the growing number of infrastructure technology and vendors were becoming blurred, and the time to troubleshoot issues was increasing.

ENTERPRISE

The variety of point tools that operations was using for monitoring and packet capture were similarly problematic - incomplete and inconsistent in locating the source of performance problems. Case-in-point, the organization was dealing with unresolved issues related to both Citrix Independent Computing Architecture (ICA) and Microsoft Exchange services. The data center transformation provided an opportunity to evaluate current tools and design a strategic approach to ensuring high-quality performance of their business applications and services, along with superior end-user experience to both their employee and their customer communities. This would enable network operations to support business applications, as well as market data and trading applications simultaneously.

Solution in Action

Following a rigorous evaluation, the IT team selected NETSCOUT's nGeniusONE service assurance solution that leverages smart data from InfiniStreamNG (ISNG) appliances. The ISNG appliances rely on patented Adaptive Service Intelligence™ (ASI) technology that transforms wire data into real-time performance metrics and application details providing smart data for smart analysis by nGeniusONE. They also selected the nGenius 5100 series packet flow switches to distribute the wire traffic from network links, including the new high-speed 100 GB segments in the Cisco ACI deployment, to downstream monitoring devices, including the ISNG appliances.

The IT team at this financial exchange company is using the nGeniusONE solution in a variety of ways:

- Triage degradations and disruptions system-wide to pinpoint where throughout the infrastructure problems are occurring. With visibility across the vast range of technology and vendors involved, including the new Cisco ACI or cloud providers, they can now hand off troubles, with evidence, to the appropriate group or vendor for restoration.

- Monitor and troubleshoot performance issues in real-time with their Citrix ICA and Microsoft Exchange services to reduce and avoid employee-impacting issues.

- Track and analyze services critical to their customers, including trade order, Financial Information Exchange (FIX), and market data feed application traffic to stay ahead of customer-affecting issues, such as latency, bandwidth consumption, or multicast microbursts. In one case, they were able to successfully resolve a high latency issue with a trading application by quickly identifying the source to a particular server.

- Evaluate bandwidth utilization and network activity to better schedule maintenance windows and plan capacity changes based on actual observed and trended utilization activity.

The Results

The company is more fully realizing both financial and operational benefits associated with the addition of NETSCOUT® as their sole-source service assurance and enterprise visibility provider. These benefits include:

- Reducing the time necessary to gain mean-time-to-knowledge (MTTK) and resolution (MTTR) by having visibility throughout their internally and customer-facing environments. This is reducing and avoiding downtime, improving customer experience, increasing vendor cooperation, and lowering threats to their reputation as a quality market trading exchange and partner.

- Lowering the cost and complexity associated with operating several dissimilar tool vendors by selecting NETSCOUT for monitoring business and market data applications, unified communications and VoIP services, Cisco ACI and public cloud environments, as well as providing packet broker technology.

- Improving decision-making by having evidence from monitoring end-user traffic, which has helped their budgeting process associated with capacity planning along with scheduling technology maintenance and upgrades for low-peak times.

- Increasing collaboration within the financial organization with senior management, line of businesses, and between network and application teams with details on customer and employee activity.

In a network of financial transactions, uptime and performance are paramount. For this financial organization, their data center transformation project brought visibility to help ensure employee and customer experience met those standards.

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https://www.netscout.com/solutions/trading-service-capital-markets

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