# NETSCOUT.

# U.S. City Confidently Migrates to Microsoft Azure Government Cloud Using NETSCOUT Visibility

Assures Service Reliability During Critical Civic and Business Application Services Transition



## **Customer Profile**

This U.S. city is world-renowned as a business center, serving as the home for numerous Fortune 500 companies. Beyond commerce, the city serves as a highly regarded travel destination, with well-known entertainment, restaurant, and sporting venues attracting visitors from across the globe.

In supporting more than 1 million residents along with these travelers, the city operates a vast municipal services network and has earned repeated awards as a "Smart City" that embraces technological innovations which improve civic efficiencies.

Supporting business operations across a city of this size requires a significant technology investment, and their IT team has for years managed digital transformation projects that have helped improve service quality to area businesses, schools, hospitals, agencies, and residents.

### **The Challenge**

Working in tandem with City Government leadership, the IT team planned to transition certain application workloads to a Microsoft Azure Government Cloud (Azure Government) environment. The IT's motivation focused on reducing expenses, while improving business efficiencies in an operations environment offering compliance with relevant security standards. As configured in the Azure Government environment, the city's cloud service involved more than 100 VMware virtual instances.

### **OVERVIEW**

#### The Challenge

- Visibility required for new Microsoft Azure Government Cloud and VMware environment
- Before, during, and after monitoring required to assure effective service transition

#### **The Solution**

- nGeniusONE<sup>®</sup> Service Assurance platform
- NETSCOUT<sup>®</sup> Certified InfiniStreamNG<sup>®</sup> software appliances
- vSTREAM<sup>™</sup> virtual appliances

#### The Results

- Assured service reliability through Azure
  Cloud migration
- Extended ROI delivered by vendor-agnostic nGeniusONE monitoring of enterprise-wide network, app, cloud, and virtual service elements

In complementing the secure operation of this environment, the IT team also looked to maximize use of Azure ExpressRoute to create private (i.e., excluding public internet) connections between Azure Government Cloud and the city's data centers.

The Azure Government rollout was just one of many digital transformation projects being undertaken by the city, and the IT team knew the importance of the future ability to view and monitor cloud services in the overall context of business service operations. In essence, they required a "single pane of glass" that would provide a real-time snapshot of their physical, virtual, and cloud environments and the business services running on them.

Given their experience in transitioning government services to other platforms, as well as multiple other digital transformation projects that were being rolled out at the same time as Azure Government, IT leadership sought vendor technology and recommended-practices guidance that would provide visibility, real-time monitoring, and troubleshooting capabilities that were not being delivered by their already-deployed vendor toolsets.

### **Solution in Action**

When IT leadership examined various approaches to their cloud monitoring requirements during a comprehensive evaluation process, the NETSCOUT solution offered visibility into application performance in the Azure Government Cloud that was unmatched by other vendor tools under consideration. As a result, the IT team moved forward with this cloud migration project using a NETSCOUT solution configuration that featured the following:

- nGeniusONE Service Assurance platform, which provided analytics where issues occur in the cloud environment, with real-time service dashboard and monitor views offering contextual drill-downs required for specialized troubleshooting and remediation.
- NETSCOUT Certified InfiniStreamNG software appliance technology was deployed in a primary data center aggregation layer to passively monitor north/south traffic traversing in and out the center, while generating smart data in real-time from these network packets for use by nGeniusONE analytics.
- vSTREAM virtual appliance technology was deployed in Azure Government to provide visibility into the cloud and VMware virtual services operating in that environment, as well as visualize application performance for city workloads that had transitioned to Azure.

With this deployment established, the NETSCOUT solution was used by the IT team to assure the service quality of city applications running in the Azure environment, as well as provide the single-pane-of-glass views from real-time monitoring of network and business services running across their environment. nGeniusONE offered IT flexibility in how Azure Government services were visualized and monitored, with easily customizable service dashboards and monitors providing cloud-dedicated views, as well as real-time snapshots of Azure operating in the context of the broader network, business & civic applications, and virtual environment.

As issues occurred, the IT team was also able to use an nGeniusONE workflow that progressed from the comprehensive network and applications views offered by Service Dashboards and Service Monitors down to deep-dive forensic analytics offered by onboard Session Analysis.

The IT team also took advantage of nGeniusONE service dependency mapping functionality to visualize application dependencies for applications running in the on-premises data center environment that needed to be factored as those workloads were moved to Azure Government.

#### **The Results**

The IT team used the visibility provided by NETSCOUT to move applications from their data center environment to Azure Government without compromising service quality.

For an IT team monitoring an environment of this size, nGeniusONE's flexibility also brought value in terms of a vendor-agnostic approach to network, application, cloud, and virtual environment monitoring that offers opportunities to reduce redundant IT toolsets.

#### **LEARN MORE**

For more information about NETSCOUT Federal Civilian, State & Local Governments solutions, visit:

https://www.netscout.com/solutions/federalcivilian-state-local-governments

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