Smart City Sustains Technology Innovation and Hybrid Workforce Performance With NETSCOUT

Assures Data Center and Network Transformations, Migrates Confidently to Azure Cloud

OVERVIEW

The Challenge

- IT tool limitations led to monitoring issues and War Room instances
- Evolving network, data center, cloud, and remote workforce environments prompted new visibility needs

The Solution

- nGeniusONE® Service Assurance platform
- NETSCOUT® Certified InfiniStreamNG® software appliances
- vSTREAM™ virtual appliances
- nGenius®PULSE Virtual Server Appliance and Virtual Collector, with nPoints

The Results

- Reliable government service delivery to citizens, visitors, and employees, with sustained Smart City initiatives
- "Single pane of glass" IT views into user experience quality on all technology platforms

Customer Profile

This North American metropolitan center is widely recognized as a technologically innovative "Smart City."

Their information technology (IT) team's commitment has helped successfully pilot and implement smart parking and environmental systems, as well as "connected cities" innovations that include interactive kiosks providing mass transit and visitor information.

This well-versed IT team has long committed to adopting next-generation application, network, and data solutions to enhance the city's business operations and service delivery. The IT team's efforts are underscored by the city's commitment to establishing strategic alliances with local partners and technology leaders, as well as continually improving the civic and business services offered to residents, visitors, and employees.

The Challenge

These Smart City initiatives aside, thousands of city employees depend on reliable service delivery from numerous, specialized government and business applications. As part of the city's commitment to continually improve service delivery to these users, the IT team had already successfully migrated applications like SAP, Salesforce, 311, and Microsoft Office 365 to a mix of multi-cloud, virtual, Software-as-a-Service (SaaS) platforms. The IT team had also made a strategic commitment to a Microsoft Azure Cloud solution.

As IT continued to diversify and improve this technology environment, the mix of vendor tools deployed years earlier for network and application monitoring no longer delivered the visibility required to assure reliable performance. When problems did occur, there were War Room occurrences where this same lack of visibility extended IT frustrations, with time-consuming cycles spent on troubleshooting and remediating issues. The lack of meaningful visibility in key locations across their end-to-end environment became more magnified during the city's rapid transition to a hybrid workforce, with 50 percent of employees moving to at-home office environments and the balance continuing in mission-critical on-site roles at regional government facilities. The IT team's inability to visualize and monitor user experience or service performance over their virtual private network (VPN) only added to their War Room instances.

These collective issue prompted a strategic decision to revisit their deployed vendor toolsets to identify a singular visibility and monitoring solution that would assist IT's commitment to improving service reliability across this diverse on-premises, remote, cloud, virtual, and SaaS environment.

Solution in Action

The IT leadership team used an extensive evaluation exercise to identify the distinct smart visibility and real-time monitoring differentiators that the NETSCOUT solution approach offered to the city, with this deployment including the following:

- **nGeniusONE Service Assurance platform,** which provided analytics identifying 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, which was deployed in their 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, which was deployed in cloud services to provide visibility into those environments, such as virtual services operating in them. With vSTREAM, the IT team gained insight into the performance of city application workloads that had transitioned to cloud services environments, including Azure.
- **nGeniusPULSE Virtual Server Appliance and Virtual Collector technology, with nPoints,** which provided visibility into VPN performance and end-user experience that had previously hindered IT's abilities to assure service reliability in at-home work environments. The nGeniusPULSE solution also offered synthetic business transaction tests (BTTs) to assess user experience for city employees accessing SaaS platforms that included Salesforce.com, ServiceNow, and Microsoft Office 365. nGeniusPULSE delivered the visibility needed into the city's evolving IT ecosystem to ensure the availability, reliability, and performance of mission-critical business services across this multi-cloud/SaaS environment, from wherever users needed access.

With NETSCOUT, the IT team gained the single-pane-of-glass views that helped centralize real-time monitoring of government-critical applications in the manner they had envisioned, including:

- **Database apps** – Oracle, Posse, Document Library
- **First-responder apps** – Computer-aided dispatch, 9-1-1 services, EMS medication
- **Unified Communications apps** – Cisco Voice over IP, first-responder video management systems

The NETSCOUT solution enhanced the visibility required for real-time monitoring to assure service delivery, while providing service dashboards and monitors, service dependency maps, reporting, and extended forensic support that improved troubleshooting, reduced mean-time-to-repair (MTTR) cycles, and limited War Room instances.

The Results

The IT team used NETSCOUT's visibility and monitoring to begin the process of reducing vendor toolsets, along with the limitations that had led to service delivery and troubleshooting issues.

Wide-ranging city government service functions – ranging from first responders, to financial analysts, to parks & recreation resources – all benefit when voice, video, and data services are available around the clock, and that's where the NETSCOUT deployment offered near-immediate returns on investment to the city.

The IT team's abilities to leverage NETSCOUT in this manner enabled them to confidently proceed with the ongoing network and data center transformations in their environment, while continuing to focus on the Smart City initiatives that improve government service efficiencies for residents and visitors alike.

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https://www.netscout.com/solutions/government/state-local

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