

City IT Department Adds Service Assurance for Integrated Emergency Call Services Using NETSCOUT

NETSCOUT Solution Improves Coordination of First Responder Services Dispatched on Millions of Annual Calls

OVERVIEW

Business Challenge

- City Police, Fire, and EMS operating separate call management technologies led to inconsistent response times and effectiveness
- City IT team sought to integrate Police, Fire, and EMS on a single 911 system in redundant data centers, enhancing disaster recovery preparedness
- Next-generation Service Assurance technology required for quick resolution to issues

NETSCOUT Solution

- nGeniusONE® Service Assurance platform, leveraging dedicated Global Managers to manage Local nGeniusONE Servers
- InfiniStream®, with NETSCOUT® Adaptive Service Intelligence™ (ASI) technology
- nGenius® for Flows for NetFlow performance analytics
- nGenius 3900 Series Packet Flow Switch and Network TAPs

Business Value

- nGeniusONE and InfiniStream with ASI solution assures delivery of simultaneous 911 call data to Police, Fire, and EMS teams, improving City emergency communication systems
- NETSCOUT solution leads to improved call center efficiency and dispatch response times
- NETSCOUT redundant configuration supports the City's Primary/Disaster Recovery data center strategy



Customer Profile

Many of today's U.S. City-based Information Technology (IT) teams find themselves addressing "innovation agendas" set by City mayors, focusing on smart initiatives, open government projects, Civic Engagement improvements, and Internet of Things (IoT) application efforts.

Balancing ongoing oversight priorities that include sustaining diverse programs such as Portals & E-Government, Broadband & Connectivity, Mobile Applications, and Cybersecurity are significant challenges. In addition to addressing those challenges, City IT teams are tasked with factoring Chief Information Officer (CIO) priorities regarding budget & cost control, as well as hiring and retaining competent IT personnel in a competitive market.

In one case in point, this large-scale IT Department oversees service delivery for some 65 City agencies, ranging from the Department of Corrections, Department of Sanitation, Human Resources Administration, and Department of Education, as well as 911 and 311 services.

Business Challenge

In addition to the everyday challenges posed by managing the City's massive IT operation, the IT Department oversees call management technology performance for the City's Police, Fire, and Emergency Medical Services (EMS) teams.

Historically, the City's Police, Fire, and EMS teams maintained individual call networks. In addition to potentially serving to add to the territorial relationships between the Police, Fire, and EMS departments, these discrete call networks posed technical and responsiveness issues, especially when two or three departments were dispatched to a single incident in the City. Inconsistent network response times and call information provided by the various call systems could lead to delays and confusion in responding to critical calls for service.

The City's annual voice call volume for Police, Fire, and EMS reaches into the millions, further prompting the need for call management synergy between the departments.

NETSCOUT Solution

The City IT Department has been an NETSCOUT customer for more than a decade, employing the nGeniusONE Service Assurance platform daily to perform proactive network and application performance monitoring, network capacity reporting, and packet analysis for numerous, diverse City agencies.

As part of its dual data center project, the IT Department installed the NETSCOUT nGeniusONE Service Assurance platform in a new public safety center serving as a Disaster Recovery location, also enhancing its primary location with next-generation NETSCOUT technology that includes dedicated nGeniusONE Global Managers, four nGenius 3900 Series Packet Flow Switches, and the nGenius for Flows NetFlow analysis solution.

NETSCOUT Solution in Action

When the IT Department redesigned the City's 911 system to provide a single call management system to Police, Fire, and EMS teams in order to improve effectiveness of the teams dispatched on critical emergency calls, it turned to NETSCOUT's Service Assurance solution to ensure end-to-end visibility and high performance.

In the dual data center configuration, the City's distributed environment consists of nGeniusONE Servers organized in a cluster that includes one nGeniusONE Global Manager managing local nGeniusONE Servers at each location. The nGeniusONE Server design supports the IT Department's mandate for Disaster Recovery configuration of the City's emergency call management system, offering integrated remote management access, crashed system recovery, and power control functions for the server hardware.

At each public safety data center location, the City IT team operates the nGeniusONE Service Assurance platform along-side InfiniStream appliances and nGenius 3900 Series Packet Flow Switches, allowing call dispatchers to proactively assist critical Police, Fire, and EMS service calls that traverse the network infrastructure to ensure optimal system performance.

In addition, the IT Department uses the NETSCOUT nGenius for Flows performance analytics solution for NetFlow traffic to perform infrastructure monitoring, including CPU and memory issues, as well as ensuring the use of NetFlow information with a Remedy ticketing solution.

Business Value

With the NETSCOUT solution operating synergistically in the two IT data centers dedicated to emergency call management, the City's Police, Fire, and EMS operators can view and process service calls using the same data at the same time, benefiting from the end-to-end visibility provided by the NETSCOUT InfiniStream and ASI technology. The NETSCOUT solution provides the IT Team with comprehensive views of service, network, application, and server performance across the complex multi-tier, multi-domain service delivery environment employed by the City's 911 system.

The redundant NETSCOUT configuration supports the secondary data center's ability to process calls as a standalone facility in the event of failure at the primary facility.

In addition, the NETSCOUT solution provides the Service Assurance required to enable the secondary data center to supplement the primary facility's efforts in handling day-to-day City 911 call volume. In this fashion, the City is better equipped to support Police, Fire, and EMS calls from residents and businesses.



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