NETSCOUT®

Service Assurance for Custom Applications in a Distributed Judicial Network

Statewide Court System Relies on NETSCOUT to Assure IT Application Performance

OVERVIEW

Business Challenge

- State IT network supports hundreds of court locations generating 300,000 legal business transactions per hour

- IT needed to reduce time to resolve issues impacting custom applications that support document filings, case assignments, fines and payments, etc. – technology frustrations extended as high as State Justice user level

- Expanded network visibility required to differentiate WAN/LAN performance issues

NETSCOUT Solution

- nGeniusONE® Service Assurance platform with UC support and nGenius® standby server, complemented by nGeniusPULSE infrastructure monitoring solution

- InfiniStreamNG™ appliance with NETSCOUT® Adaptive Service Intelligence™ (ASI) technology supports the expanded 40 Gigabit monitoring and UC environments

- nGenius 3900 series packet flow switch and Network TAPs enhance network visibility

Business Value

- NETSCOUT reporting and business metrics unite Network, Applications, and Business Owner teams in assuring user experience

- nGeniusPULSE dashboards prove network and application performance status to Superior Court user base

- nGeniusONE Service Dependency Mapping provides "before-and-after" views to identify Cisco infrastructure change misconfigurations, assuring upgrade success

Customer Profile

This State & County Judiciary network encompasses hundreds of court locations, supports tens of thousands of monthly users, and helps execute millions of transactions annually.

The Judiciary system includes the State Supreme Court, as well as Criminal, Civil, Tax, Municipal, Family, and Appellate Court functions.

Business Challenge

With more than 300,000 networked business transactions an hour, there is no understating the importance of availability and responsiveness of the application services to the efficient operation of the court system! Everything from case filings, criminal complaints, civil actions, and case assignments, to legal document filings, appeals, dispositions, and payments are processed through this network every day. Delays in logging in, accessing information, or even using email can have a waterfall impact on the entire day's operation – in one courthouse, or across the state, and must be avoided or curtailed with the help of the IT staff.

In this case, the Judiciary's IT team is tasked with technically assuring the Court's collective abilities to process daily caseloads and perform instrinsic business operations to sustain legal activities, which means serving as the IT Customer Support function (for end users, legal staff, even judges) and maintaining the network, applications, and Unified Communications (UC) environment for all State & County court locations and offices.

IT operations are based in a primary data center, and the technical environment includes use of Citrix and Microsoft platforms and a Cisco-based UC infrastructure. As the organization continues their digital transformations, they plan to move to Microsoft Office 365, update their Cisco environment, and migrate to Cloud platforms.

Several IT challenges that the Network Operations team were focused on had been impacting the Judiciary's ability to process cases and keep pace with daily business and court administrative transactions:

- Needed to reduce mean-time-to-repair (MTTR) with much needed enhanced visibility – to monitor the traffic coming from the remote sites to the Primary data center over third-party WAN circuits
- Faced implementation of Cisco infrastructure upgrades and wanted complete "before-and-after pictures" to ensure the new environment was properly configured

In addition, the Applications team needed a solution to troubleshoot why its newly deployed custom applications were generating performance issues in supporting service delivery to Municipal Court locations, causing user backlogs and daily transaction delays in tracking cases, payments, court tickets, and overtime hours. This issue achieved visibility at the Superior Court level, with Justices experiencing difficulties tracking court dispositions or even logging in.

Further, the UC team required an enhanced solution for identifying baseline metrics (e.g., MOS) in their Cisco environment to report on voice performance issues.

NETSCOUT Solution

In addressing their network, application, and UC issues, the Judiciary's IT relies on the nGeniusONE Service Assurance platform with UC support, along with InfiniStreamNG appliances with ASI technology. This nGeniusONE platform is complemented by nGeniusPULSE for infrastructure monitoring technology. In enhancing network visibility, IT has deployed nGenius 3900 Series PFS technology and NETSCOUT TAPs alongside InfiniStreamNG.

NETSCOUT Solution in Action

In addressing their challenges, the Network Operations team deployed the nGenius 3900 series packet flow switch, feeding wire traffic into the InfiniStreamNG appliances for visibility in the data center LAN environment. ASI-based smart data was analyzed by nGeniusONE for Service Dashboard analytics to a differentiate LAN issues from WAN anomalies. This expanded environment supports the Judiciary's move to a 40 GB network environment by providing trunk statistics necessary for capacity planning and load balancing their switches, as well as visibility into asymmetric routing issues.

Leveraging enhanced visibility and ASI metadata, nGeniusONE is reducing the Judiciary's MTTR, with real-time Service Dashboards identifying issues (e.g., client, server, application protocol, and error codes) that may negatively impact service. nGeniusONE also provided a solution for visualizing the performance of the Cisco infrastructure upgrade, specifically with Service Dependency Mapping identifying before-and-after configuration changes and any corresponding issues associated with Cisco updates.

For the Applications team, NETSCOUT's solutions provides full visibility into the custom applications environment. nGeniusPULSE provides IT with increased precision in analyzing the source of problems down to the individual court locations. nGeniusPULSE hardware (known as nPoint micro appliance devices) provides automatic 24x7 continuous testing from dozens of courts location. nGeniusPULSE is particularly helpful in measuring building performance, as well as responsiveness of Internet- and Web-based services. One particularly technology-savvy member of the bench even uses nGeniusPULSE's intuitive dashboard to view the status of services important to his business activities, using graphs and trend charts.

The UC team benefits from the extended nGeniusONE solution's ability to easily generate management-level Voice Performance Management reporting.

Business Value

In supporting the Judiciary's end-users, the extended nGeniusONE platform enables Judiciary IT teams to take a services-oriented approach to ensuring critical court and business services are both available and performing at high levels.

NETSCOUT's ability to transform the Judiciary's high-value wire traffic into easily visualized "smart data" has helped unite Network, Application, Unified Communications teams, and the Court System's business owners in optimizing performance of hundreds of thousands of transactions an hour.

All IT teams are getting ahead of issues with real-time analysis of affected sites/communities, and potential bandwidth constraints.

The NETSCOUT solution also better prepares IT for a ruminated migration to a Cloud-based environment, with ASI wire-data visibility before, during, and after transition for service assurance of the Judiciary's selected technology model – including public, private, or hybrid cloud deployments.

NETSCOUT®