NETSCOUT

Airline Ensures Application Performance in AWS With NETSCOUT Visibility

nGeniusPULSE Identifies Degradations With Unique Analysis in AWS Lambda Environment

OVERVIEW

The Challenge

- No visibility to availability of critical reservation application in AWS serverless environment
- Need quick identification and resolution to issues

The Solution

- nGeniusONE® with ISNG and vSTREAM™
- nGenius®PULSE with nPoints
- NETSCOUT® Visibility as a Service (VaaS)

The Results

- Assurance of availability and performance of application in AWS Cloud
- NETSCOUT VaaS team delivers insights and support to identify and resolve issues

Customer Profile

This North American based airline carrier is one of the top 25 largest in the world, serving an average of more than 4 million customers monthly.

For scheduled or charter flights, passengers or cargo, this air carrier's thousands of employees and more than 250 planes ensure the safe and comfortable arrival at hundreds of airports on six continents. Adoption of digital transformations in recent years has improved their ability to be a competitive player in the industry and to support passenger quality of experience. It has also meant they depend on their global network to support their operations in global airports, regional data centers and call centers, and airport suites and lounges.

The Challenge

The airline moved from a legacy reservation system traversing its internal network to a fully integrated global, complex hybrid system. The multiple applications include loyalty membership, passenger reservations, flight closures, and more - all flowing between Equinix data centers, Amazon Web Services (AWS) and Microsoft Azure cloud environments, as well as SaaS providers located all over the world. In this architecture, AWS is the ""middleware" that links all of the information and transactional flows together. One of the unique aspects of this complex architecture is that their main airline reservation system runs in a Lambda serverless environment within AWS, which meant the airline lacked visibility to verify availability and performance of their applications.

Because of the business-critical importance of this new reservation system and the impact on their users' experience, the airline needed to continuously verify the availability of the services and react quickly to identify, triage, and resolve any issues before customers were impacted... or even noticed.

Solution in Action

As a NETSCOUT customer, using the nGeniusONE Service Assurance platform with InfiniStreamNG® (ISNG) appliances and vSTREAM virtual instrumentation, the airline had the visibility from network performance monitoring of the packet data in the Equinix data center they needed for providing analysis and metrics via NETSCOUT's unique, patented Adaptive Service Intelligence® (ASI) technology. However, when they needed additional visibility into applications in their serverless, Lambda environments in AWS, they again turned to NETSCOUT. Because of the dynamic and elastic nature of a serverless environment, the airline had no way to instrument or see traffic like a traditional network. This left a visibility gap to one of, if not THE, most critical business services in their new architecture.

Working with NETSCOUT's highly-skilled nGenius Visibility-as-a-Service Team (VaaS), the airline IT staff deployed nGeniusPULSE, NETSCOUT's active monitoring solution, in the airline's data center with nPoint virtual agents located in their AWS environment to perform continuous tests verifying business-critical applications are always available. nPoints, deployed as software agents in AWS, perform automatic and continuous tests against their Lambda environment to ensure availability and health of the applications. Specifically, if the nPoint testing cannot reach an application in the serverless environment, the company is immediately alerted to a potential issue. This proactive approach not only gives the airline visibility, it provides early detection of potential issues before users or customers are affected.

The VaaS team also helped script Business Transaction Tests (BTT) in nGeniusPULSE to continuously simulate the entire user experience from making a full reservation, to selecting a seat on the flight, to paying for the transaction. These are performed continuously, at regular intervals, even during slow periods, as a proactive measure. Again, degradation in any of these steps is an early warning of potential issues that could severely impact business. As one IT Executive explained, "if there are any issues at all, planes don't fly."

The Results

The combined NETSCOUT solutions, nGeniusONE and nGeniusPULSE, deliver continuous monitoring across the airline's entire hybrid reservation system. Leveraging both network traffic wire data and continuous active testing results, they are assured that the network and applications, even those in the cloud, are available and performing to meet customer needs.

The information collected from the nGeniusPULSE tests are also enhancing the collaboration between the airline's IT staff and their AWS counterparts. The earlier issues are identified, combined with the evidence provided from both nGeniusONE and nGeniusPULSE, the easier it is to pinpoint the nature of the degradation and remedy it quickly.

Additionally, the power of NETSCOUT's VaaS team working closely with the airline's IT team to deliver key insights into potential issues and quick resolution is helping to maintain availability for excellent customer service. When the business depends on planes in the air, this level of proactive visibility is invaluable.

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and

https://www.netscout.com/marketplace-aws

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