Assuring Quality Performance and Availability of Retail Service

In this time of increasing complexity and rising costs, IT teams at retail organizations are struggling to keep up with new and emerging technologies while still keeping the business running 24x7. Digital transformation is driving innovation at a breakneck pace.

Today’s consumers expect a seamless, personalized shopping experience in stores and on-line. This is leading to the rise of omnichannel strategies, interconnecting in store, online, mobile app, and social media platforms to drive sales. These approaches are dependent on a complex mixture of front and back end services to ensure that products are available, and orders can be placed, processed and delivered or made available for pickup in a local store in a timely fashion.

According to the 2018 Accelerated Concepts Retail Survey, 72% of retailers lose sales during a network outage.

Buyers are more sophisticated today with personal expectations and demands. Differentiating themselves between competitors and attracting the attention of buyers of any age is not simply a goal, but a mandate for retailers in many cases. Many retail businesses are also offering additional services to supplement traditional offerings – a brick and mortar retail business might add in-store services to entice customers into the shop; a store credit card to earn discounts; a mobile app with in-store advertising and specials; targeted coupon and/or other rewards or loyalty programs to add more value to the shopping experience.

A poor customer experience, in the store, on-line, or with the contact center may erase all the goodwill built up with a long-standing customer. An always on, always secure network and application infrastructure with increasingly sophisticated analytics data to help optimize that customer experience is essential to meeting customer expectations and revenue objectives.

In order to keep pace with these changes, it is essential for IT teams to develop an end-to-end view into all of the inter-related applications, networks, services, and servers that make up the highly distributed, complex, retail environments of today.

Our Approach

The NETSCOUT® approach to business assurance for the retail industry is built on a foundation of high-quality data and real-time analytics. Based on packet data, NETSCOUT patented Adaptive Service Intelligence™ (ASI) technology provides the most robust data source available to ensure that critical retail services are delivered to the data centers, distribution centers, retail stores, and contact centers by measuring the actual transactions and dependencies of the service.

NETSCOUT analytics are the industry leading standard for scalability and ease-of-use, enabling proactive service triage. Powered by ASI, the nGeniusONE® Service Assurance platform delivers unmatched capabilities that ensure the reliable and uninterrupted delivery of critical business applications including SIP and other voice protocols used in retail contact centers; Web Services, Citrix, Oracle, SAP that might be used for e-commerce sites or distribution warehouse product availability apps; and critical service enablers such as DNS or DHCP. Even custom applications a retailer may have for rewards programs can be identified and monitored.

Rapid triage and faster MTTR for issues impacting high quality service delivery of voice, video, web, Citrix, point-of-sale (POS), database, and other retail applications.

The benefit of this approach is getting the right information to the right person at the right time while delivering the fastest Mean Time to Resolution (MTTR). Logical, intuitive workflows have been developed, with data reduction in mind, to reduce the mountain of data and statistics found in high volume, globally distributed, complex IP networks down to the rich, actionable intelligence.
generated from ASI metadata. By minimizing the amount of noise and maximizing the essential information, retail IT organizations have greater effectiveness in troubleshooting the complicated service-impacting issues that affect their customers, distribution centers, payment systems and stores with the NETSCOUT solutions.

Our Solution

NETSCOUT delivers solutions that support both the wired and wireless infrastructures in retail organizations. The nGeniusONE platform provides real-time visibility into both IP-based business and retail services along with contextual workflows to speed problem resolution, making it easy for Level 1 responders to use and still powerful enough for experts to operate. nGeniusONE leverages rich, packet data for extracting performance metrics rather than relying on server agents, vendor-specific metrics, or a multitude of point tools which require a specific skillset to operate.

The nGeniusONE platform provides IT with a comprehensive view of retail services and their performance across complex N-tier application environments. With scalability to support up to 100Gbps speeds, the nGeniusONE platform is designed for use in both physical and virtual environments in the world’s largest and most demanding retail networks.

Rather than look at individual elements in isolation, nGeniusONE provides an overarching view into the performance characteristics of the components associated with service delivery both on premise and in the cloud. This exposes underlying service dependencies between such services as Citrix, E-commerce applications, POS, payment processing applications, mobile apps, and the individual applications servers, their backend databases, and all the necessary service enablers such as DNS, DHCP, and authentication like LDAP, Active Director or Radius. This helps IT operations to more effectively manage effective delivery of services to retail store locations or ensure uptime of critical applications at distribution centers, improving the teams’ ability to proactively identify the root cause of problems.

To complement nGeniusONE, nGeniusPULSE monitors access to critical services from the client perspective. Retail organizations are challenged to ensure services are available from all store and warehouse locations. nGeniusPULSE provides continuous, multi-point visibility of service availability to promote business continuity.

For the wireless environment, nGeniusPULSE makes Wi-Fi problem solving easy and gives IT the visibility they need to improve Wi-Fi user experience by detecting problems based on indicators from the service they are using. Advanced service testing over Wi-Fi and Ethernet connections provides IT a way to compare the trended results for fault isolation and determine if any service impact is, or is not, due to the wireless network.

Visibility to protect the retail organizations from enterprise-wide network threats to the business can be accomplished with Arbor Threat Analytics (ATA). With the ability to promptly and efficiently detect, validate, and respond to threats, it serves as an early warning system of damaging incidents. Leveraging the same ASI data for analytics, retail organizations can reduce the time cyber criminals can lurk in the network, thus reducing exposure to the company’s resources and reputation.

Figure 1: NETSCOUT assures end-to-end service delivery across even the most complex application environments to ensure that retail organizations can stay up and running 24 by 7.
Our Value to Retail Organizations

For retail organizations, NETSCOUT solutions are designed to provide insights into critical applications and services the business depends on. With NETSCOUT, retail IT organizations can:

- Keep on top of POS services by monitoring payment processing applications and generating alerts to detect when the transaction rate is slow or errors occur.
- Make informed business decisions based on custom analytics derived from critical applications and services.
- Ensure a smooth shopping experience for customers with end-to-end visibility across the Enterprise, on premise or in the cloud.
- Protect call quality in contact centers with custom dashboards and reports showing QoS, MOS scoring, jitter, packet loss, and other key metrics.
- Get ahead of issues and reduce MTTR by proactively responding to service degradations impacting critical services such as POS, supply chain, or e-commerce.
- Get to the root cause faster by understanding the inter-relationships and interdependencies between different backend applications such as database, web, DNS, DHCP, SSL certificate authentication.
- Improve IT team collaboration with a single unified view into voice, network and application services providing end-to-end visibility into session-level details.

The nGeniusONE platform supports thousands of voice, video and data applications including Citrix, Oracle, SAP, SIP, and even custom home grown applications.