

Edison Group Technology Spotlight

Assuring Service Performance in the Software-Defined Data Center

The software-defined data center (SDDC) architecture is helping businesses extend abstraction, pooling and automation aspects of virtual computing to all data center resources and services. SDDC adoption is expected to

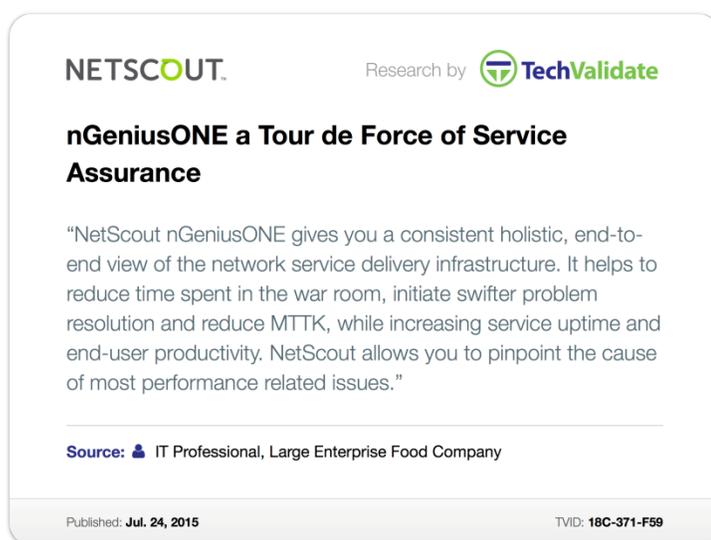
Service assurance for the software-defined enterprise cannot have blind spots.

gain momentum as IT organizations benefit from agility to innovate with new services, higher operational efficiencies, and lower costs. In spite of these benefits, SDDC introduces additional layers of IT complexity, which result in new service assurance challenges. Narrowly focused silo-specific monitoring tools do not have a holistic view of the virtual and physical service delivery environment. When service degradations impact users or customers and effective service triage and root-cause analysis are critical, these tools with disparate data sets become an IT organization distraction not a solution. For effective service triage, IT teams require a solution that provides full service delivery insight for their virtual, physical and hybrid IT environments. To make that happen, solutions such as the NETSCOUT nGeniusONE platform are required. This platform derives intelligence from network traffic, providing IT teams full visibility into layers 2 through 7 as well as much needed insight into service performance interrelationships and their dependencies.

Enterprises running software-defined data centers expect high value outcomes. Every virtualized environment places a growing emphasis on rapid application delivery, use of APIs to instantiate network and application policies in real time, and high availability attributed to the ability to dynamically allocate server and network resources. To capitalize on these SDDC benefits, the IT organization has to implement robust service assurance polices and best practices. Yet, as a recent Forrester report noted, the majority of IT teams use 10 or more monitoring tools and as a result operate in silos which actually increases business risk and can cost millions of dollars a year as a result of poor service performance. NETSCOUT offers customers a way to accelerate their migration to virtualized infrastructures with confidence and without compromising end user or customer experience, and reduce capital and operational expenses. NETSCOUT's nGeniusONE and Adaptive Service Intelligence (ASI) technology provide continuous monitoring and real-time analysis of business services traversing virtual machines (VMs) on the same and different hypervisors in multi-tier data centers. For both private

and hybrid cloud frameworks, such as Platform as a Service (PaaS) and Infrastructure as a Service (IaaS), NETSCOUT brings clarity to complex transactional physical and virtual network processes using its patented ASI technology to collect, correlate, analyze and contextualize traffic data. This approach allows for rapid service triage and enables IT teams to deliver a high quality user and customer experience in complex multi-location, multi-vendor, IaaS and PaaS environments.

ASI technology runs on NETSCOUT's physical and virtual Intelligent Data Sources and generates highly scalable metadata in real time as the IP traffic traverses physical or virtual links. With pervasive instrumentation and ASI technology at work, traffic-based intelligence provides a complete understanding of the business service experience and can quickly identify the source of a performance problem including a malfunctioning service enabler like Active Directory preventing email access; DSCP mismatch that hampers Unified Communications; a virtual desktop issue causing an application to freeze; or a user community impacted by an issue related to application tiers residing on different VMs and on different hypervisors. Network operations engineers and IT administrators get insights into application traffic volumes, server response times and throughputs, aggregate error counts, and error codes specific to the various applications and servers active in the environment. TechValidate, a "voice of the customer" researcher, reported that by stripping away the unknown and removing guesswork, NETSCOUT accelerates problem resolution and reduces time spent in the war room for each service incident.



NETSCOUT. Research by  **TechValidate**

nGeniusONE a Tour de Force of Service Assurance

"NetScout nGeniusONE gives you a consistent holistic, end-to-end view of the network service delivery infrastructure. It helps to reduce time spent in the war room, initiate swifter problem resolution and reduce MTTK, while increasing service uptime and end-user productivity. NetScout allows you to pinpoint the cause of most performance related issues."

Source:  IT Professional, Large Enterprise Food Company

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Service assurance for the software-defined enterprise cannot have blind spots. IT organizations recognize that end-to-end visibility is required for assuring the delivery of critical business services in the most demanding and complex physical and virtual



networks. Traditional monitoring approaches don't work because IT teams struggle to pinpoint service performance problems with a multitude of tools and disparate data sets. NETSCOUT's nGeniusONE top down management approach provides a holistic view and understands the entire IT environment including the software-defined data center. This solution helps IT organizations reduce business risk and allow enterprises to operate, innovate and compete at the highest level.