

Manufacturer Manages Data Center Migration, Gains Visibility Into Factory Environments With NETSCOUT

Reduces MTTR, Improves IT Efficiencies With Comprehensive Service Edge Monitoring

OVERVIEW

The Challenge

- Data center transformation rollout slowed by technology interoperability and Equinix Co-lo visibility concerns
- Virtual blind spots in VMware ESXi hypervisor environment led to plant performance issues

The Solution

- nGeniusONE® Service Assurance platform
- NETSCOUT® InfiniStreamNG® appliances, vSTREAM® virtual appliances
- nGenius® Visibility as a Service

The Results

- Smart visibility, smarter analytics enabled IT to troubleshoot and remediate widespread performance issues across service edges
- Data center migration advancement, with nVaaS providing strategic guidance



Customer Profile

It is quite likely the brands manufactured and distributed by this company are on household shelves in the majority of residences around the world.

The manufacturer navigated the business challenges posed by the pandemic by expanding their e-commerce channels to supplement traditional distribution to brick-and-mortar retailers. Earlier investments in the use of robotics in their smart factories helped sustain manufacturing operations in the early phases of COVID-19, when some workers had transitioned to work-from-home (WFH) environments for personal safety reasons.

The company's resilience during this period required enhanced collaborations across more than 50 global business hubs and a vast information technology (IT) commitment.

The Challenge

Long seen in the industry as a manufacturer committed to digital innovations that enhance production quality and employee efficiencies, the company years earlier had entrusted IT operations to a Business Process Outsourcer (BPO). Over the course of that contract, many of the manufacturer's corporate operations practices were modified. As a result, with the BPO's renewal date looming, the manufacturer's executive team strategically prepared for a return to an in-house data center and IT operations model. Rather than solely re-establishing an entirely on-premises data center network, this modernized operations design featured:

- Carrier Neutral Facility (CNFs) locations coordinating regional business operations delivery.
- Use of vendor-neutrality offered by CNFs, which enabled IT leadership to mix-and-match service providers (i.e., multiple telecommunications and ISPs) and Co-located (Co-lo) Data Centers (e.g., Equinix).

- A VMware ESXi hypervisor technology environment used to support high-value applications, such as robotics automation for manufacturing operations.
- A transition to numerous Software-as-a-Service (SaaS) solutions, including Microsoft Teams/Office 365 and Cisco Webex that would become employee productivity lifelines to WFH users.

With these data center and technology migration rollouts involving Americas and APAC regions, it was imperative that these early project phases go well and lead to lessons learned which could be applied for success in other geographies.

Unfortunately, service performance problems emerged across several areas that would consume IT Operations cycles, including:

- Virtual network “firefighting” related to post-incident response activities associated with latency in VMware environments supporting manufacturing operations. With IT receiving reports of slow virtual compute and response times, failed authentications, and access issues, addressing these concerns was important to maximizing manufacturing plant productivity.
- Network bandwidth inefficiencies in APAC operations, as well as service tickets regarded as “application issues”.
- Microsoft Teams UC&C performance issues.

Solution in Action

NETSCOUT’S “smart visibility, smarter analytics” solution and the nGenius Visibility as a Service (nVaaS) team’s abilities to provide insight into the complex applications and network issues facing IT operations soon became crucial elements in the strategic management and advancement of this project.

On the technology side, IT operations used the following NETSCOUT solutions:

- The nGeniusONE Service Assurance platform provided single-pane-of-glass visibility into the real-time performance of more than 100 business applications and 40 “critical” network services.
- Installed InfiniStreamNG (ISNG) smart visibility appliances supporting 40GB network speeds were used to provide insight into performance at CNF facilities in the Americas and APAC.
- Deployed vSTREAM virtual appliances in VMware environments brought much-needed visibility into the manufacturing facility environments.

With this solution deployed, NETSCOUT’s technology and nVaaS consultants helped iteratively address visibility and performance issues across the manufacturer’s extended data center transformation, including:

- Enhanced manufacturing performance, by providing service edge visibility into service interdependencies in the VMware ESXi hypervisor environments, including service enablers (e.g., DNS), databases (e.g., Oracle, Lightweight Directory Access Protocol, Microsoft SQL Server), authentication servers (e.g., RADIUS).
- Resolved Webcast performance issues, with vSTREAM appliances converting virtual network packets into NETSCOUT smart data used by nGeniusONE UC analytics for root cause analysis workflows.
- Identified Webex performance quality of service concerns, using NETSCOUT smart visibility to identify root cause analysis as relating to the Cisco UCaaS platform.
- Addressed Microsoft Teams quality of service challenges.

Strategically, nVaaS consultative resources were seen as an extension of Network Operations Center operations, helping that team maximize use of the nGeniusONE platform and ISNG/vSTREAM data sources to improve service edge visibility across their infrastructure necessary for trend analysis and troubleshooting.

The Results

Based on the NETSCOUT consultative approach that provided solution design and service edge visibility guidance, this manufacturer confidently moved forward with their global data center transformation.

The ability to gain visibility at these globally distributed manufacturing plants reduced the mean-time-to-resolve (MTTR) issues impacting their employees, assembly lines, and corporate communications, all of which represented a big overall benefit to the company. With nGeniusONE and vSTREAM virtual appliances, the networking team was able to attack issues as they arise to minimize disruption, and at times even avoid them.

In distinguishing the company as a reliable business partner, committed to the global rollout of this project, NETSCOUT shared the expertise gained through a number of the company’s long-established partnerships with key technology players in this project, including Microsoft, VMware, and Oracle. As a result, NETSCOUT achieved a faster time to value, while additionally providing IT operations with a better understanding of the service edge visibility and service dependency requirements necessary for reliable performance across multi-tier CNF/Co-lo/On-Premises data centers and manufacturing environments.

LEARN MORE

For more information about NETSCOUT solutions for Assuring Availability and Performance for Manufacturing Networks, visit:

<https://www.netscout.com/solutions/manufacturing>



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