

# Visibility for Hybrid Cloud

## Achieving Outstanding Customer Experience Across Your Hybrid Environment

The majority of corporate enterprises today have multi-cloud strategies that support revenue – and customer-enhancing business services. First-class customer experience, greater agility in application introductions, and automation in service deployments can only be achieved with visibility for high-quality performance management and service assurance. Smart data from NETSCOUT®, its patented Adaptive Service Intelligence™ (ASI) technology, is the foundation for the vSTREAM™ virtual appliances and it is what provides the visibility necessary to assure a high-quality experience across your hybrid cloud environment.

## Hybrid Cloud Service Assurance Challenges

Enterprise organizations have come to depend on packet-based monitoring for performance management in their legacy data centers, which makes the blind spot in

cloud services that much more jarring. Often, critical applications have components running in these multiple domains, increasing the complexity and risk when issues occur. In fact, according to a 2019 EMA survey, multi-cloud is now become standard practice, with more than 80% of companies responding using two or more IaaS providers.

Pinpointing root cause of degradations in such situations can be complicated and time consuming. With so many domains to consider, equipment and service vendors involved, combined with the lack of consistent, pervasive monitoring and analysis, valuable time can be lost as each party attempts to claim innocence while the problem persists. These challenges can be broken down into three categories:

- **Architectural Complexity** – Hybrid cloud and Infrastructure-as-a-Service (IaaS) bring challenges when the service includes components & enablers on different platforms in both private and public cloud and across multiple vendor technologies and locations

- **Disparate Tools Cause Ambiguity** – The mix of performance management and tool technologies throughout the service chain can compete and conflict with each other, making analysis time consuming and inconclusive

- **Visibility Constraints** – Packet-based visibility is ever more important, at precisely the same time it is becoming more challenging to implement. Traffic may remain within the private, public and hybrid cloud environments, where traditional solutions have lacked practical analysis

At one time, overcoming the deployment issues and cost concerns represented major barriers to achieving the necessary visibility into multi-cloud environments. Based on packet data, NETSCOUT's ASI technology provides the foundation for the most robust data sources available to monitor and analyze service delivery of applications throughout the hybrid cloud. Our innovative vSTREAM virtual appliances expand the reach of ASI to places not feasible to instrument with a physical probe, thus overcoming these visibility challenges.

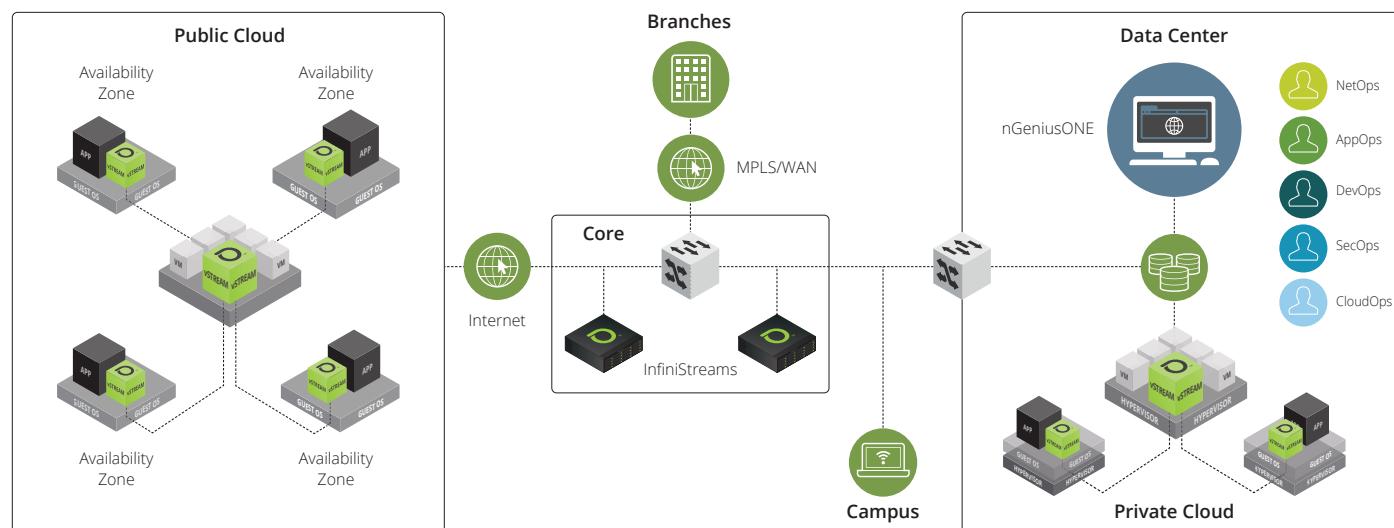


Figure 1: Visibility into virtualized environments is provided with rich ASI from the vSTREAM virtual appliances when deployed in combination with the nGeniusONE Service Assurance platform. All members of the IT organization, from NetOps to DevOps, AppOps, SecOps, and CloudOps, will benefit from the improved collaboration that comes from leveraging the same automated analysis.

## vSTREAM Capabilities

vSTREAM, powered by ASI technology, is designed to provide deeper visibility into the interactions of the many components of modern applications, whether they run in the traditional data center or in the various forms of the cloud. NETSCOUT's technology converts high-volume network traffic into highly structured, multi-dimensional metadata, that is, "smart data," in real time.

vSTREAM provides the full functionality of an ISNG appliance for the cloud and virtualized environments. vSTREAM is:

- Deployed as an instance in a cloud environment or as a Virtual Machine on a hypervisor
- Scalable based upon the number of vCPUs, RAM, Storage leveraged
- Supported on VMware vSphere & KVM / OpenStack in virtualized environments
- Implemented as an instance in Public Cloud, as well as, Amazon Web Services (AWS) and Microsoft Azure

As used in conjunction with the nGeniusONE Service Assurance platform and/or Virtual nGeniusONE platform, vSTREAM:

- Aggregates traffic from multiple sources, in particular from vSTREAM-EMB via tunneling as necessary
- Provides the full features of an ISNG appliance, presenting real-time views of sessions, conversations, end-to-end call trace data, packet analysis, and network-wide KPIs

vSTREAM can be deployed in combination with ISNG software and hardware appliances to provide seamless, end-to-end, ASI-based analysis across the hybrid cloud and application service infrastructure. NETSCOUT is transforming our solutions to provide flexible, scalable, and cost-effective instrumentation options across the data center and hybrid cloud, providing ASI-powered Smart Data to ensure top service performance and rapid problem resolution, so enterprises can unlock the benefits of Hybrid IT and migrate with confidence.

## Benefits of vSTREAM in Hybrid Cloud Environments

- Seamless, Affordable Cloud Visibility – vSTREAM-EMB and vSTREAM are cost-effective, making pervasive instrumentation feasible. Able to be deployed everywhere and enabled as needed for service visibility, vSTREAM is delivered using a scalable deployment model that can be configured to meet the performance dictated by the volume of packet data.
- Reduce Tool Complexity and Optimize Investment– vSTREAM and ISNG appliances are ASI-based data sources and supported by the same nGeniusONE workflows for a complete network and application service assurance solution.
- Have Confidence in Your Hybrid Cloud Deployment – Solve problems quickly with visibility throughout the hybrid cloud via vSTREAM, armed with the same smart data and smart analytics enterprise IT staff are using for network and application service assurance in data centers today.
- Reduce Time to Value – Plug-and-play deployment that harnesses the full power of IP intelligence, recognizing thousands of common protocols and applications.
- Eliminate Ambiguity and Triage Issues Quickly – Decreases Mean-Time-to-Repair (MTTR) with proven workflows useful in the cloud for end-to-end, comprehensive service assurance across on premise, private cloud, or public cloud environments



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