vSCOUT and vSTREAM for Hybrid Cloud Environments

The majority of corporate enterprises today have multi-cloud strategies that support revenue and customer enhancing business services. Greater agility in application introductions and service deployments can only be achieved with high quality service assurance. NETSCOUT’s patented Adaptive Service Intelligence™ (ASI) technology is the foundation for vSCOUT™ and vSTREAM™ to gain visibility into services in these hybrid cloud-based environments.

Hybrid Cloud Service Assurance Challenges

Enterprise organizations have come to depend on wire-based service assurance capabilities in their traditional 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, Forrester Research reported in 2016 that 46% of companies using public cloud use two or more providers already. Pinpointing root cause in such situations can be delayed and time lost as equipment and service vendors point to each other as the source of the problem. These challenges can be broken down into 3 categories:

- **Architectural Complexity** – Hybrid cloud and Infrastructure-as-a-Service (IaaS) brings 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.

Overcoming the deployment issues and cost concerns have been major barriers to achieving the necessary visibility into the hybrid cloud environment. Based on wire data, NETSCOUT’s extended ASI Plus technology provides the foundation for the most robust data sources available to monitor and analyze service delivery of applications throughout the modern IT landscape. Our innovative, vSCOUT and vSTREAM software applications expand the reach of ASI to places not feasible with a physical probe, thus overcoming these visibility challenges.

Figure 1: The nGeniusONE platform supports superior analytics from vSCOUT and vSTREAM deployed in hybrid cloud environments. In this case, vSCOUT provides KPIs and forwards traffic on-demand to vSTREAM when deep-dive analysis is required to help identify service health & performance issues.
vSCOUT & vSTREAM Capabilities

vSCOUT and vSTREAM, powered by ASI Plus technology, are 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.

vSCOUT

vSCOUT is designed to combat the challenges of the cloud environment and is ideal for monitoring services within data centers or public cloud infrastructures where traditional packet acquisition techniques are not feasible or cost effective. This latest generation of ASI-based software products leverage NETSCOUT’s unique, smart data approach to offer a highly scalable and affordable option for managing the complexities of applications deployed in hybrid environments. vSCOUT is:

- A microservice that runs on the same Guest OS as the target application service.
- Deployed in AWS Linux, Windows Server, RHEL/CentOS, and/or Ubuntu operating systems.
- Resides alongside the application in a virtual machine or container, monitoring application and servers in motion.

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

- Reports critical key performance indicators (KPIs) to
- Supports Service Dependency mapping,
- Provides Service Dashboard rollups,
- Performs Service Monitor and Traffic Monitor analysis and views of monitored traffic
- Continues reporting on application behavior regardless of virtual machine / container location or movement

vSCOUT helps identify service health and performance issues when deployed in data centers, the cloud and even branch offices to expand visibility. vSCOUT can also be configured to forward copies of the server's packets to a vSTREAM for full ASI functionality.

vSTREAM

When complete ASI functionality is required, including session details and long term packet recording, vSTREAM provides the features of a fully functional InfiniStream® 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 vSCOUT via tunneling to apply full ASI functionality as necessary.
- Provides the full features of an InfiniStream appliance presenting real-time views of sessions, conversations, end-to-end call trace data, packet analysis and network-wide KPIs.

vSCOUT and vSTREAM can be deployed in combination with physical and virtual InfiniStream appliances, to provide seamless, end-to-end, ASI-based analysis across the entire 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 vSCOUT & vSTREAM in Hybrid Cloud Environments

- **Seamless, Affordable Cloud Visibility** – vSCOUT and vSTREAM are priced to make pervasive instrumentation feasible. vSCOUT can 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 wire-data.
- **Reduce Tool Complexity and Optimize Investment** – vSCOUT, vSTREAM and InfiniStreamNG™ appliances are all ASI-based data sources and are all 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 vSCOUT and 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.
- **Reduces 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.

NETSCOUT offers sales, support, and services in over 32 countries. Global addresses, and international numbers are listed on the NETSCOUT website at: www.netscout.com/company/contact-us-2/