NETSCOUT.

Application Performance Management for AWS

Visibility Without Borders Starts with NETSCOUT Smart Data Solutions for Hybrid Cloud Monitoring

In today's digital world, enterprise organizations turn to Amazon Web Services (AWS) to meet users' demands for a fast, seamless, and secure digital experience. AWS uses secure storage, powerful compute, and integrated data analytics to support a new breed of distributed, connected applications, helping businesses cut time to market and improve customer satisfaction.

To reap the full benefits of AWS in a hybrid cloud world, companies need to optimize application performance and security. Existing tools can't fill the huge monitoring gap as they are domain specific and unable to deliver seamless, uniform visibility and common situational awareness among the different IT teams. What's more, these tools generate loads of uncorrelated data that obscure and bury performance and security insights that's needed to compete at a breakneck pace.

Enterprises running application workloads through hybrid cloud environments, including AWS, need visibility that does not begin and end at each physical boundary – in short, Visibility without Borders. NETSCOUT® solutions deliver actionable visibility to mitigate service performance issues, threats, and vulnerabilities. NETSCOUT has tools and technologies that make it possible to reduce Mean Time to Knowledge (MTTK), increase Continuous Delivery/ Continuous Integration (CD/CI) velocity, and control service performance and security in IT infrastructures comprised of data centers, co-locations and clouds.

Solution Overview

NETSCOUT uses the industry's most scalable, lightweight distributed architecture to generate Smart Data. Through continuous monitoring and by capturing all wire data (traffic flows) traversing the hybrid cloud environment - performing simultaneous deep-packet inspection and real-time analysis - NETSCOUT generates Smart Data at its point of collection. You also gain a centralized view into the performance characteristics of all infrastructure and application components and their dependencies across geographically dispersed data centers and cloud environments. With valuable and timely intelligence into application performance and security, you can proactively find and fix errors, latencies, and threats before they become service delivery problems.

NETSCOUT solutions let you migrate workloads to AWS with confidence, providing a foundation for common situational awareness for NetOps, SecOps and other IT groups by monitoring a variety of availability, reliability, responsiveness and threat metrics - making them easily accessible in real time to the right team members with custom views relevant to their function. Actionable visibility from NETSCOUT allows you to take full advantage of AWS capabilities.

NETSCOUT Solutions Allow Enterprise IT Teams To:

- Accelerate deployments of services into AWS while assuring business continuity.
- Achieve end-user experience objectives and swift issue resolution for application services with Smart Data and smart analytics from NETSCOUT.
- Empower collaboration between enterprises and AWS as they work together to achieve business goals.
- Quick time to value with easy to deploy and easy to manage approach of services available on AWS Marketplace.

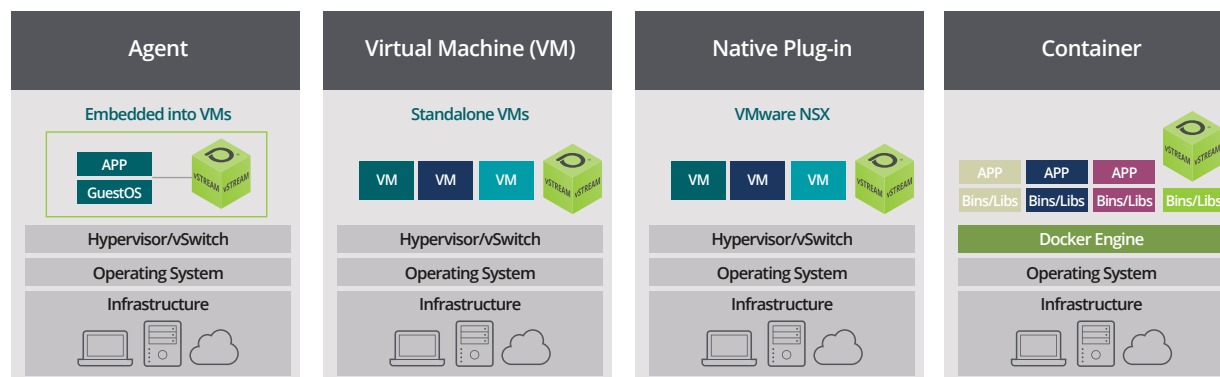### Generating Smart Data in Hybrid AWS Environments

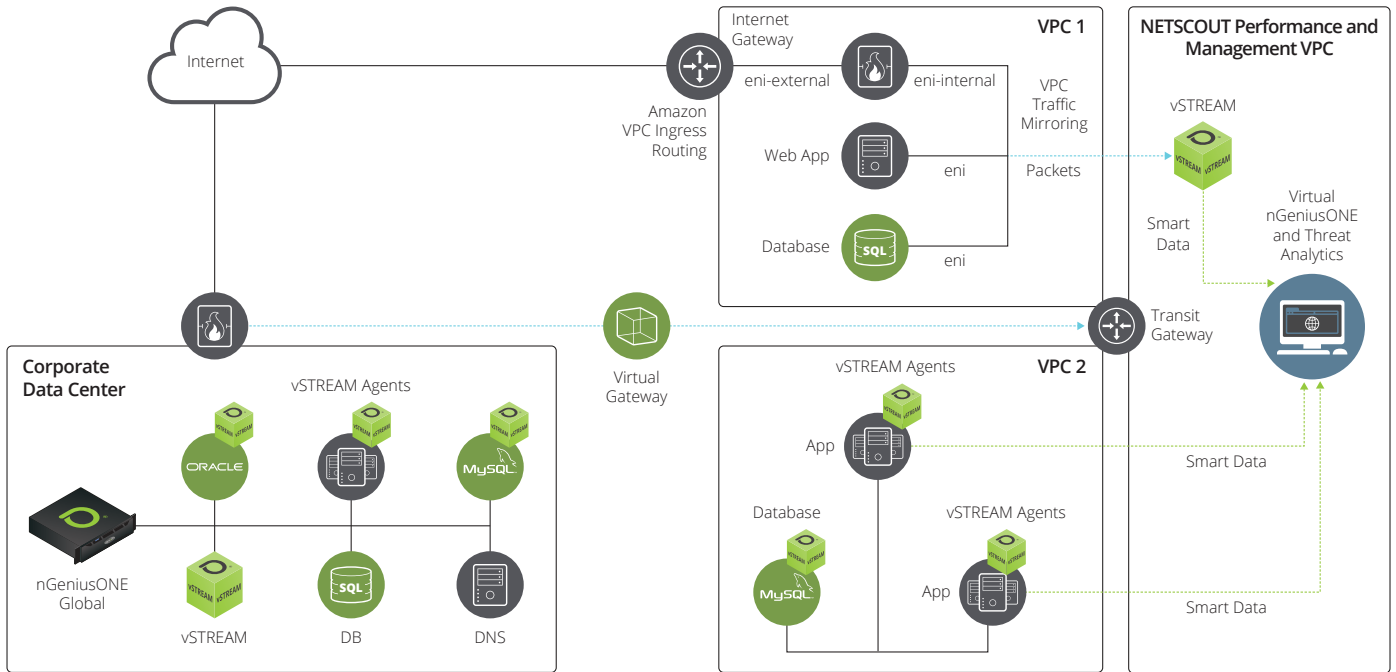Figure 1: Pervasive visibility with NETSCOUT Smart Data.

Figure 2: Migrate workloads to AWS with confidence.

Manage Hybrid Cloud Complexity with Smart Data

NETSCOUT Smart Data is based on software-centric technology that can be deployed in any hybrid cloud environment. It offers pervasive visibility in AWS to monitor East-West (E/W) and North-South (N/S) traffic environments, as well as in VMware NSX to provide visibility into E/W traffic in micro-segmented clusters. Smart Data technology, see Figure 1, is suitable for monitoring any software architecture and especially microservices, since it continuously monitors and analyzes traffic data exchanges between workloads, indexes it and correlates the information to identify dependencies and actionable intelligence on security threats and vulnerabilities, as well as performance issues.

Smart Data is generated by vSTREAM™ based on monitoring any environment in the hybrid cloud, including virtual machines (VMs), Docker or Kubernetes containers/pods, NSX as a native Plug-in (or Service Virtual Machine), and bare metal servers.

nGeniusONE® Service Assurance platform analyzes and converts the Smart Data into actionable insight with top-down service-oriented workflows that guide the user through the triage process of root-cause analysis. nGeniusONE helps users navigate in context from the service dashboard which offers visibility into critical service issues, to the service monitor, which provides details on load, latency and errors, and finally, to the hop-by-hop session analysis.

Unlimited, Unchained, Unrestricted Application Performance Management

NETSCOUT Smart Data fuels the end-to-end visibility and deep analytics needed to protect the enterprise, gain more control of service quality, and preserve the user experience in hybrid cloud environments.

With the NETSCOUT solution, see Figure 2, information is timely and precise – able to support multiple, diverse stakeholders with data flexibility – to meet specific business requirements.

nGeniusONE provides application performance management for AWS and allows you to:

- Assure service delivery in hybrid cloud environments.
- Migrate application workloads to AWS while reducing business risk.
- Deliver a consistent and high-quality user experience before, during and after cloud migration.

Solution Components

In complete alignment with the needs of cloud-centric digital transformation strategies, NETSCOUT provides application performance management for AWS and delivers Visibility without Borders. This means real-time, pervasive visibility and deep analytics by leveraging key capabilities of NETSCOUT's enterprise product portfolio.

Deployed in combination, the following products support the successful migration of workloads to the cloud by providing an effective analytics feedback loop based on real-time and continuous monitoring of wire data.

vSTREAM

With vSTREAM, a common set of metadata is made available to a wide range of analytics stacks for enhanced application performance and security insights. When vSTREAM is used with AWS, wire data is transformed into Smart Data.

Instantiate vSTREAM in the AWS environment as a virtual application, agent VM, or agent in a container.

- Analyzes real-time views of sessions, conversations and end-to-end call traces.
- Assesses application traffic volumes, server response times and throughputs.
- Reports on critical key performance indicators (KPIs).
- Aggregates error counts and error codes specific to the various applications and servers.

Virtual nGeniusONE

Virtual nGeniusONE is used with AWS and delivers an overarching view into the performance characteristics of all infrastructure and application components associated with delivering digital services.

Instantiate Virtual nGeniusONE as a VM in the AWS environment.

- Supports proactive service triage for root cause analysis and application performance troubleshooting in hybrid cloud environments.
- Combines real-time monitoring, historical analysis, and multi-layered analytics capabilities.
- Promotes effective management of the health and availability of diverse applications and infrastructure with business impact analysis.

Amazon VPC Traffic Mirroring

Amazon VPC traffic mirroring allows you to acquire packet data from multiple application workloads in an Amazon VPC and mirror it to a vSTREAM monitor port.

Amazon VPC Ingress Routing

Amazon VPC ingress routing lets you define routing rules at the Internet Gateway (IGW) and Virtual Private Gateway (VGW) to redirect ingress traffic to third-party appliances before it reaches the final destination. Traffic coming in or out of a VPC can be redirected to security or packet-shaping virtual applications, which in turn can be monitored through VPC traffic mirroring with vSTREAM for advanced service performance and security assurance.

LEARN MORE

Visit AWS Marketplace for more information:

https://aws.amazon.com/marketplace/pp/prodview-reujxcu2cv3f4?qid=1579796357941&sr=0-1&ref_=srh_res_product_title

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