

# Application Performance Management for AWS

## Successful Migration Requires Visibility

With unrelenting marketplace competition, enterprise organizations are accelerating their digital transformation with Amazon Web Services (AWS) to achieve revenue and customer satisfaction goals. In many cases, the decision to move an application to the AWS cloud is made by the business and delegated to IT with the following expectations:

- Cost Reduction
- Performance Improvement

While the request is simple, the existing applications are inherently complex and inter-dependent. As a result, the very act of moving applications to the cloud often results in degrading quality and unexpected spend.

Whether migrating as an application lift and shift, refactoring or redesigning with microservices, managing the business on AWS cloud relies heavily on an enterprise's ability to remove performance "blind-spots."

Today, NETSCOUT'S Application Performance Management for AWS is improving application visibility for companies transitioning to AWS. With NETSCOUT®, enterprises gain more control of service quality and preserve the user experience across hybrid environments.

## Solution Overview

Designed for end-to-end visibility into application workloads and their dependencies on compute, network and storage infrastructure in hybrid cloud environments, the NETSCOUT solution assures the highest quality customer and user experience as applications and other workloads move to the cloud.

- Optimize the performance of application workloads migrated to the AWS cloud.
- Assure outstanding customer experience for applications developed natively in the AWS cloud and relying on microservices.

With the NETSCOUT solution, DevOps and IT organizations can monitor the continuous traffic flow (wire data), capture data natively, both on AWS and on-premises data centers, perform simultaneous deep packet inspection and analysis and generate smart data for improved application performance management.

## Example Use Case: DevOps Team Mitigates Risk to Meet Automation Goals

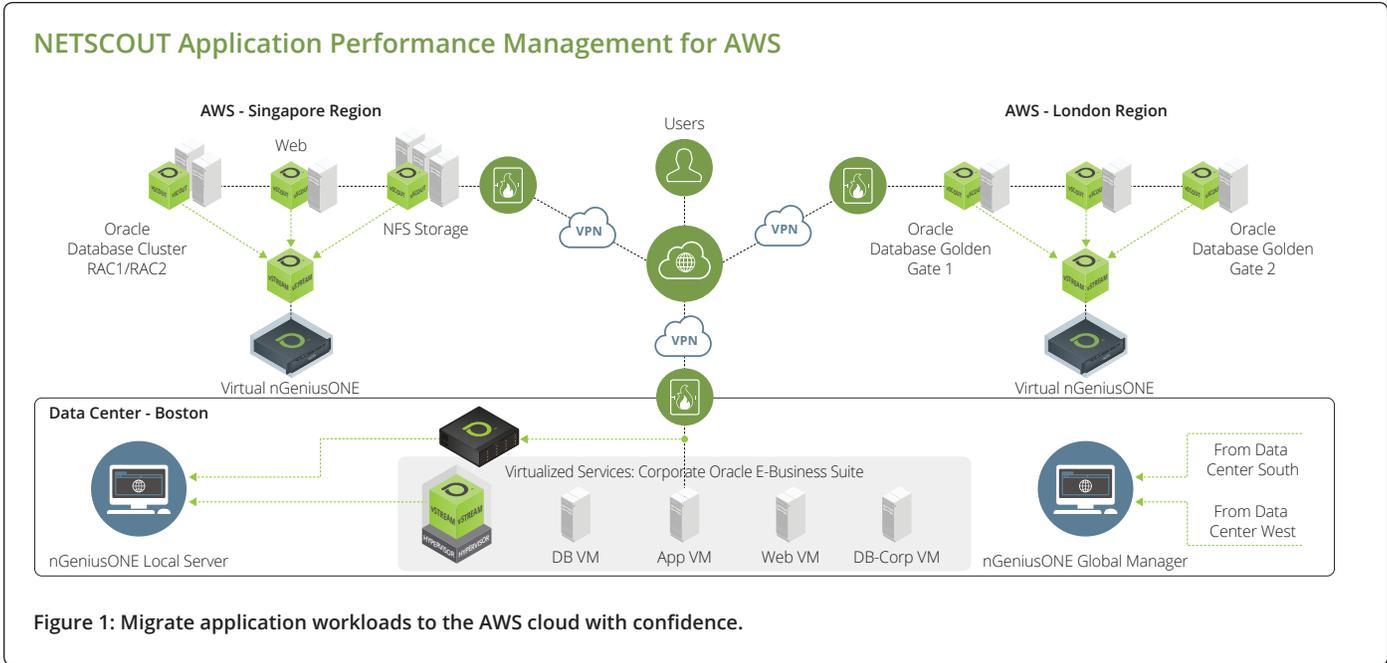
In migrating workloads to AWS, a DevOps team sought to automate tasks and accelerate continuous delivery and deployment pipelines. They recognized the increasing complexity in the production environment and the need for real-time system-level feedback to assure application performance. As such, the team deployed the NETSCOUT solution for continuous monitoring to improve their understanding of the complexities and performance of applications both in the AWS cloud and the data center.

Armed with this information, the DevOps team optimized the performance of applications that were either refactored or lifted-and-shifted to the cloud, and assured a consistent outstanding customer experience.

## Manage Hybrid Cloud Complexity with Smart Data

NETSCOUT'S Application Performance Management for AWS enables more informed business decisions. By removing the barriers associated with mining high-volume wire data in the AWS cloud, NETSCOUT's patented Adaptive Service Intelligence™ (ASI) technology enables real-time analysis of all data traversing the AWS infrastructure and on-premise data centers across the organization. With the NETSCOUT solution, smart data hidden within traffic flows between an enterprise's dynamic cloud workload is transformed into timely and valuable insights across the DevOps team.

- **Dev:** Develop a high quality code and identify precursor situations leading to widespread issues.
- **QA:** Mitigate risk by optimizing validation of application and service performance.
- **Ops:** Capture telemetry, before they impact users.



## Unlimited, Unchained, Unrestricted Application Performance Management

NETSCOUT's rich data set provides end-to-end visibility, across the entire enterprise including AWS cloud for improved customer experience and greater insights into application performance and service delivery.

- Accelerate continuous deployments with confidence
- Assure application reliability, availability and responsiveness
- Improve customer experience
- Predict service quality

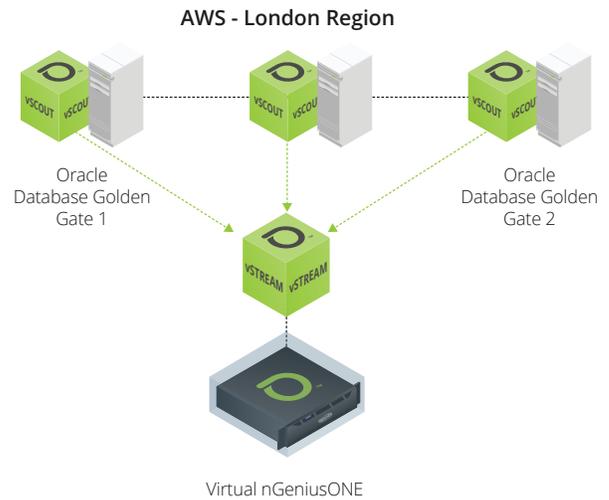
With the NETSCOUT solution, information is both timely and precise – able to support multiple, diverse stakeholders with data flexibility to meet specific business requirements.

## Solution Benefits Summary

NETSCOUT Application Performance Management for AWS enables the following:

- Migrate application workloads to AWS cloud with confidence.
- Assure the performance of the application in AWS cloud and hybrid environments.
- Deliver a consistent and high quality user experience before, during and after cloud migration.

### Figure 1 Diagram Detail



**KEY:**

- **vSTREAM:** for AWS, wire data is transformed into smart data.
- **vSCOUT:** for software-based instrumentation that forwards copies of packets to vSTREAM.
- **Virtual nGeniusONE:** for AWS, overarching view into the performance characteristics of all infrastructure and application components across geographically dispersed data centers and cloud.

## Solution Components

In complete alignment with the needs of cloud-centric digital transformation strategies, NETSCOUT Application Performance Management for AWS delivers 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

NETSCOUT's virtual appliance enables the consolidation of multiple specialized analytics tools. With vSTREAM™, a common set of metadata is made available to a wide range of analytics stacks for enhanced application performance and cybersecurity insights. With vSTREAM for AWS, wire data is transformed into smart data.

- Instantiate vSTREAM as an Amazon Machine Image (AMI) in Amazon Elastic Compute Cloud (EC2) environment.
- Analyze real-time views of sessions, conversations and end-to-end call traces.
- Assess application traffic volumes, server response times and throughputs.
- Aggregate error counts and error codes specific to the various applications and servers.

### vSCOUT

The NETSCOUT solution bridges the visibility limitations of traditional wire data acquisition techniques with software-based instrumentation, using vSCOUT™ as part of its AWS offering.

- Install vSCOUT in the AWS AMI which hosts the monitored application.
- Operate on the Guest OS alongside monitored applications.
- Report on critical key performance indicators (KPIs).
- Forward copies of server packets to vSTREAM virtual appliance.

### Virtual nGeniusONE

NETSCOUT's Virtual nGeniusONE® for AWS delivers an overarching view into the performance characteristics of all infrastructure and application components associated with delivering IP-based services.

- Instantiate Virtual nGeniusONE as an AMI in AWS EC2 environment.
- Support proactive service triage and application performance troubleshooting in hybrid cloud environments.
- Combine real-time monitoring, historical analysis, and multi-layered analytics capabilities.
- Promote effective management of the health and availability of diverse application environments with business impact analysis.

**NETSCOUT**

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