

Getting Started with NETSCOUT Application Performance Management for Amazon Web Services

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Telephone: In the US, call **888-357-7667**; outside the US, call **001 978-614-4000**. Phone support hours are 8 a.m. to 8 p.m. Eastern Standard Time (EST).

E-mail: support@netscout.com

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- Hardware model number
- License number and your organization's name
- The text of any error messages
- Supporting screen images, logs, and error files, as appropriate
- A detailed description of the problem

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Contents

Introducing NETSCOUT Application Performance Management for AWS	8
Solution Components	9
System Requirements – Amazon Web Services	10
Deployment Summary	10
Obtaining Licensing Information	11
Launching NETSCOUT Templates	12
Template Parameters	16
Connecting to Instances	18
Deploying vSCOUT from Virtual nGeniusONE	20
License Information	21
About vSCOUT Modes (Standard or Advanced)	22
Virtual nGeniusONE Deployment Notes	22
Troubleshooting NETSCOUT Application Performance Management for AWS	23
Activating MasterCare Support	24

Getting Started with NETSCOUT Application Performance Management for AWS

This document describes how to get started with the NETSCOUT Application Performance Management solution for Amazon Web Services (AWS). See the following sections for details:

- ["Introducing NETSCOUT Application Performance Management for AWS" on page 8](#)
- ["System Requirements – Amazon Web Services" on page 10](#)
- ["Deployment Summary" on page 10](#)
- ["Obtaining Licensing Information" on page 11](#)
- ["Launching NETSCOUT Templates" on page 12](#)
- ["Deploying vSCOUT from Virtual nGeniusONE" on page 20](#)
- ["License Information" on page 21](#)
- ["About vSCOUT Modes \(Standard or Advanced\)" on page 22](#)
- ["Virtual nGeniusONE Deployment Notes" on page 22](#)

Additional Resources

NETSCOUT® Systems strongly recommends that you read this document in its entirety, as well as the most recent versions of the following additional documentation available online at [My.NETSCOUT](#):

- *vSCOUT Installation Guide*
- *Virtual nGeniusONE Installation Guide*
- *vSTREAM Installation Guide*
- *Agent Administrator Guide for CDM/ASI*
- nGeniusONE documentation and Online Help

Note: For the most current and comprehensive information, visit the NETSCOUT Technical Support knowledge base at the following URL: <https://my.netscout.com/pages/mcplanding.aspx>. This site contains related documents, tips, FAQs, and suggested workarounds. You can also download updated copies of product documentation from this site.

Introducing NETSCOUT Application Performance Management for AWS

The NETSCOUT Application Performance Management solution for AWS provides end-to-end visibility on application workloads and their dependencies on compute, network, and storage infrastructure in hybrid cloud environments.

Use the NETSCOUT Application Performance Management solution for AWS to:

- 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 illustrates a sample hybrid deployment with a physical nGeniusONE server operating as a Distributed Global Manager in the data center. The nGeniusONE server manages a Virtual nGeniusONE server deployed in the public cloud together with its associated vSCOUT and vSTREAM instances, minimizing public cloud throughput charges.

NETSCOUT Application Performance Management for AWS

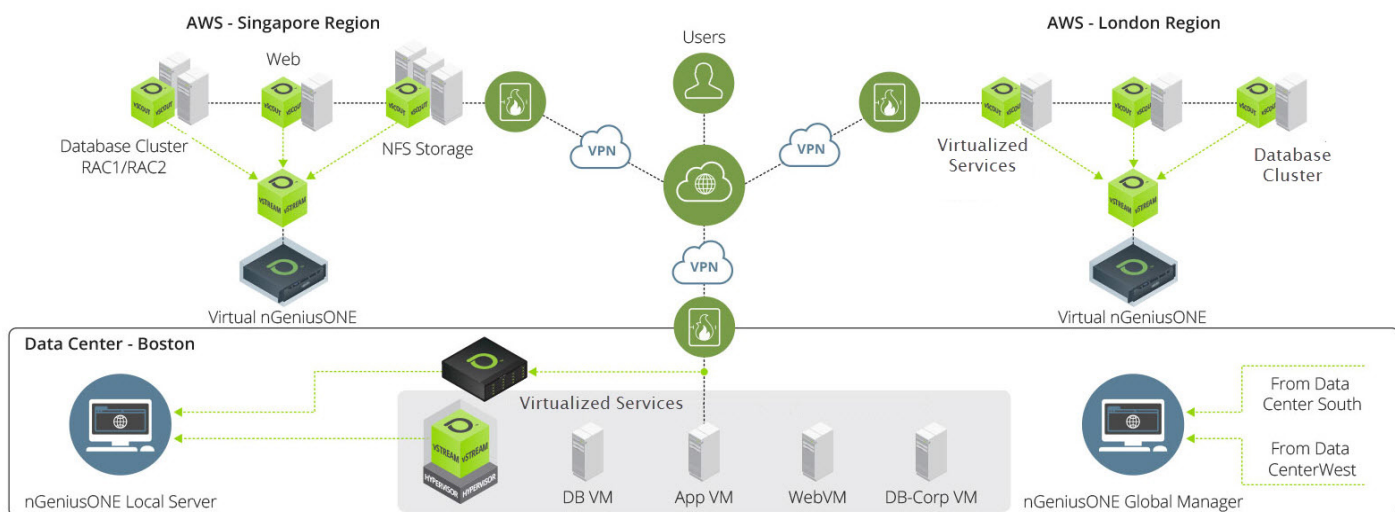


Figure 1 NETSCOUT Application Performance Management for AWS

Solution Components

The NETSCOUT Application Performance Management solution for AWS consists of the **Virtual nGeniusONE** console, **vSTREAM** virtual appliances, and **vSCOUT** agents, working together to deliver an overarching view into the performance of all infrastructure and application components across geographically dispersed data centers and cloud (Figure 2).

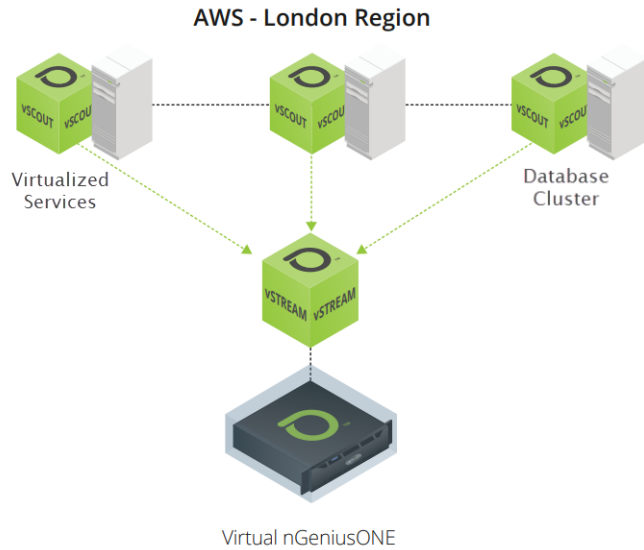
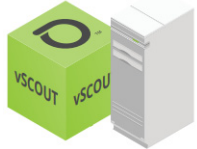




Figure 2 Detailed View of NETSCOUT Application Performance Management for AWS Components

The table below summarizes the role of each of the components in the NETSCOUT Application Management Performance solution for AWS

<p>vSCOUT</p> <ul style="list-style-type: none"> • Installers for Linux and Windows bundled with Virtual nGeniusONE AMI. • Install vSCOUT agent on same AMI as target monitored applications in the cloud. • The data source for AWS cloud visibility in the NETSCOUT Application Performance Management solution for AWS: <ul style="list-style-type: none"> • Reports on key performance indicators • Provides access to packet-level data by forwarding packets to vSTREAM. • Optimized for ASI visibility with minimal footprint. • Manage with Virtual nGeniusONE. 	
<p>vSTREAM</p> <ul style="list-style-type: none"> • Deploy as a virtual appliance in AWS EC2 using NETSCOUT's configurable Cloud Formation Templates and ready-made AMI. • Scalable provisioning depending on Instance Type selected during deployment. • Receives traffic forwarded from multiple vSCOUT agents for full ASI analysis and packet decodes. • Manage and visualize received data with Virtual nGeniusONE. 	
<p>Virtual nGeniusONE</p> <ul style="list-style-type: none"> • Delivers overarching view into the performance of all infrastructure and application components associated with delivering IP-based services. • Deploys as a virtual appliance using NETSCOUT's configurable Cloud Formation Template and ready-made AMI. • Provides seamless management of vSCOUT, vSTREAM, and InfiniStream appliances. • Integrate with Distributed Global Manager in data center (for example, over Amazon's Direct Connect service) for end-to-end visibility. 	

System Requirements – Amazon Web Services

Table 1 summarizes the necessary requirements to deploy the NETSCOUT Application Performance Management solution for AWS:

Table 1 Deployment Requirements


Component	Description
Amazon Web Services Account	You must have an active Amazon Web Services account with access to the EC2 Management Console to deploy in an AWS environment.
Amazon Web Services Permissions	The Amazon Web Services account used to deploy the NETSCOUT Application Performance Management solution must have appropriate permissions granted. The simplest way to do this is to grant the AdministratorAccess policy. However, if granting administrator access is not acceptable in your environment, assign the following policies to the account used to deploy NETSCOUT components: <ul style="list-style-type: none">• Assign the built-in AmazonEC2FullAccess policy.• Create a custom policy with a permission for Full access to the CloudFormation service and assign it. It's easiest to grant these permissions in the AWS Organizations visual editor.
Static Private IP Address & License Information	The NETSCOUT Application Performance Management solution is provided on the Amazon Marketplace as a "bring your own license" (BYOL) solution. You will need a static ("elastic" in AWS) private IP address for Virtual nGeniusONE in order to complete the product registration procedure and obtain the Serial Number and Password to be entered in the CloudFormation templates and deploy the AMIs from the AWS Marketplace. Refer to " Obtaining Licensing Information " on page 11 for details.
Existing AWS VPC	An existing AWS VPC with subnets for both Management and Monitoring.
Access to Marketplace Images	You must have access to the NETSCOUT Application Performance Management AMI images in the AWS Marketplace in the AWS region you are using.
SSH Key Pair	You must have a key pair for SSH access to deployed AMIs. You can create or import the key pair in AWS using these instructions .

Deployment Summary

Deploying the NETSCOUT Application Performance Management solution consists of the following major steps:

- 1 Work with your NETSCOUT Sales Representative to obtain the necessary licensing information for both Virtual nGeniusONE and vSTREAM. You will need to have a static private IP address for Virtual nGeniusONE in order to obtain the **Serial Number** and **Password** from the NETSCOUT registration site to enter in the CloudFormation Templates as part of the deployment for both products.

Note: No license information is required for vSCOUT installations. vSCOUT agents consume Type 1 interface licenses in nGeniusONE at different rates depending on whether they are operating in Advanced or standard mode. Refer to "[About vSCOUT Modes \(Standard or Advanced\)](#)" on page 22 for details.

- 2 Connect to the NETSCOUT site on Amazon Marketplace and use the **Launch Stack** button () corresponding to the type of deployment you want to perform. You can choose from the following CloudFormation templates:

- Virtual nGeniusONE and vSTREAM (vnG1-vSTREAM.cf.json)
- Virtual nGeniusONE Only (vnG1.cf.json)
- vSTREAM Only (vSTREAM-1if.cf.json)

Install the components of the NETSCOUT Application Performance Management solution in the following order:

a Virtual nGeniusONE (either by itself or together with vSTREAM using the combined template).

b vSTREAM. Depending on the number of vSCOUT agents from which you expect to forward traffic, you may want to install multiple vSTREAM virtual appliances. By default, each monitoring interface in a vSTREAM can accept a maximum of five vSCOUT tunnels.

c vSCOUT. The installers for vSCOUT are bundled with the Virtual nGeniusONE AMI. You can copy them to a target AMI from Virtual nGeniusONE and install them using the standard installation procedure described in "[Deploying vSCOUT from Virtual nGeniusONE](#)" on page 20.

3 Ensure that both vSTREAM and vSCOUT instances are communicating properly with nGeniusONE:

- When you deploy vSTREAM in AWS, you enter the IP address of the managing Virtual nGeniusONE server in the CloudFormation template. This lets vSTREAM add itself to nGeniusONE automatically immediately upon boot up.
- When you install vSCOUT on a target AMI, you can either configure the IP address of the managing Virtual nGeniusONE server prior to installation or add the vSCOUT manually after installation (both approaches are described in the *vSCOUT Installation Guide*).

If for some reason an instance is not communicating properly with Virtual nGeniusONE, log in to the command line of the vSCOUT/vSTREAM agent, run the Agent Configuration utility, and make sure that the Virtual nGeniusONE IP address is specified under **[4] Change Config Server Address**.

4 Configure Traffic Forwarding from vSCOUT sources to vSTREAM destinations using Device Configuration in Virtual nGeniusONE. Refer to the *vSCOUT Installation Guide* and the Virtual nGeniusONE online help for details.

Note: vSCOUT agents provide the data gathering engine for the NETSCOUT Application Performance Management solution. However, because they are lightweight by design, they do not provide all of the functionality that vSTREAM does. For full ASI analysis and in-depth packet-level analysis, you must forward data from vSCOUT sources to vSTREAM.

Obtaining Licensing Information

Use the following procedure to obtain the **Serial Numbers** and **Passwords** from the NETSCOUT registration site to enter in the CloudFormation Templates as part of the deployment for both Virtual nGeniusONE and vSTREAM:

- 1** When you purchase Virtual nGeniusONE or vSTREAM, you receive a registration form that includes a registration key. Locate this form.
- 2** Open a web browser and navigate to <https://my.netscout.com/mcp/Pages/default.aspx>.
- 3** Navigate to **Licensing & Downloads** and follow the instructions there to enter your registration key. You will also enter an IP address:

- If you are licensing Virtual nGeniusONE, you enter the static, private IP address to be used for Virtual nGeniusONE in the AWS public cloud.
 - If you are licensing vSTREAM, you enter the IP address of its managing Virtual nGeniusONE server.
- 4 When you complete the registration procedure, you receive both a serial number and a password (license key). Print the screen that contains this information. You will enter these values in the CloudFormation templates when you deploy the Virtual nGeniusONE and vSTREAM AMIs.

Launching NETSCOUT Templates


This section describes how to deploy the NETSCOUT Application Performance Management solution using the CloudFormation templates and AMIs available in the NETSCOUT site on the AWS Marketplace:

- 1 Navigate to the NETSCOUT site in AWS Marketplace.
- 2 Select the template corresponding to the type of deployment you want to perform using [Table 2](#) as a guide. Templates are available under <https://s3.amazonaws.com/netscout-cloudformation/>.

Table 2 CloudFormation Templates for NETSCOUT Application Performance Management Solution

Components Installed	CloudFormation Template	Description
Virtual nGeniusONE and vSTREAM	vnG1-vSTREAM.cf.json	Installs AMIs for both Virtual nGeniusONE and vSTREAM. The vSTREAM is automatically associated with the managing Virtual nGeniusONE server.
Virtual nGeniusONE Only	vnG1.cf.json	Installs the AMI for a Virtual nGeniusONE server.
vSTREAM Only	vSTREAM-1if.cf.json	Installs the AMI for a vSTREAM virtual appliance. As part of the CloudFormation template, you specify the IP address of the managing Virtual nGeniusONE server so that it can be automatically added to the server during instantiation.

Note: Alternatively, you can navigate to **Services > Management Tools > Cloud Formation**, choose the **Create new stack** option, and then use the **Specify an Amazon S3 template URL** field to point to one of the templates in [Table 2](#) stored under <https://s3.amazonaws.com/netscout-cloudformation/>.

- 3 Click the  button corresponding to the type of deployment you want to perform.

The **Create stack** wizard appears with the **Select Template** screen prepopulated with the selected CloudFormation template. For example, [Figure 3](#) shows the **Create stack** wizard prepopulated with the **Virtual nGeniusONE and vSTREAM** CloudFormation template.

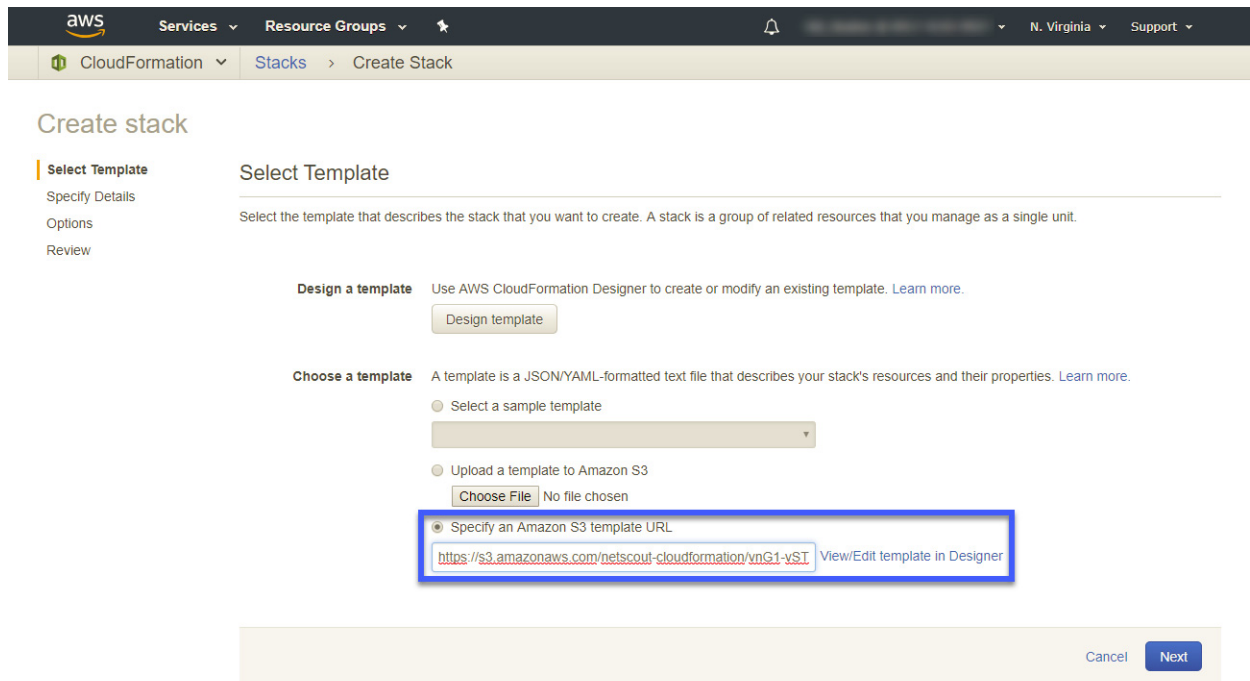


Figure 3 Create Stack Wizard with CFT for Virtual nGeniusONE and vSTREAM Selected

- 4 Click **Next** to continue.
- 5 The Specify Details screen appears. Supply a **Stack name** and fill out the **Parameters** for the CloudFormation template using the information in "[Template Parameters](#)" on page 16. [Figure 4](#) shows an example of the combined Virtual nGeniusONE/vSTREAM CFT.

Note: You configure different parameters depending on whether you are deploying Virtual nGeniusONE, vSTREAM, or both.

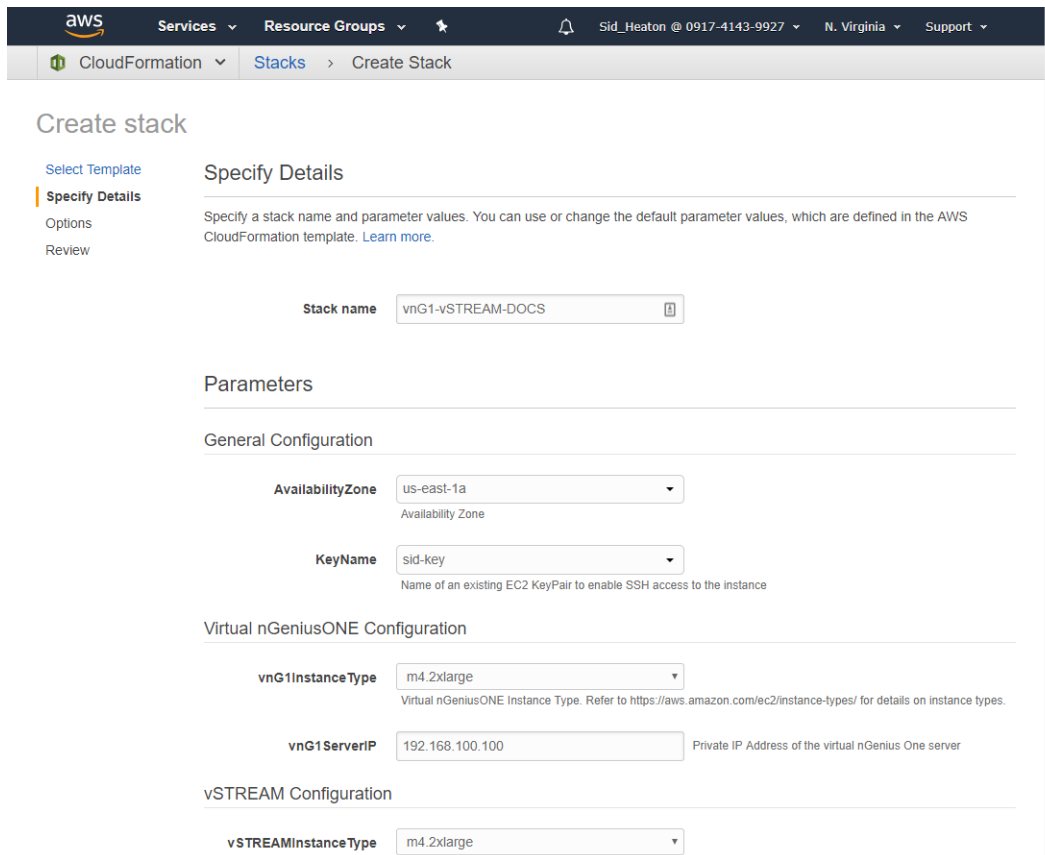


Figure 4 Supplying Values for the CloudFormation Template

- 6 When you have finished configuring the CloudFormation parameters, click **Next** to continue.
- 7 The **Options** page appears, allowing you to configure the standard CloudFormation Stack settings listed below. These are all optional; none are required. Use the links below to learn more about these AWS options.
 - [Tags \(key-value pairs\)](#)
 - [Permissions](#)
 - [Rollback Triggers](#)
 - [Advanced](#)

When you have finished setting Options, click **Next** to continue.

- 8 The Create Stack Wizard displays a summary of the settings for the new stack. Review the settings and use the **Previous** button to correct if necessary. When you are satisfied with your settings, click **Create** to launch the new instance(s).

The Stack Wizard begins to create the requested resources (Figure 5) and eventually launches the instance.

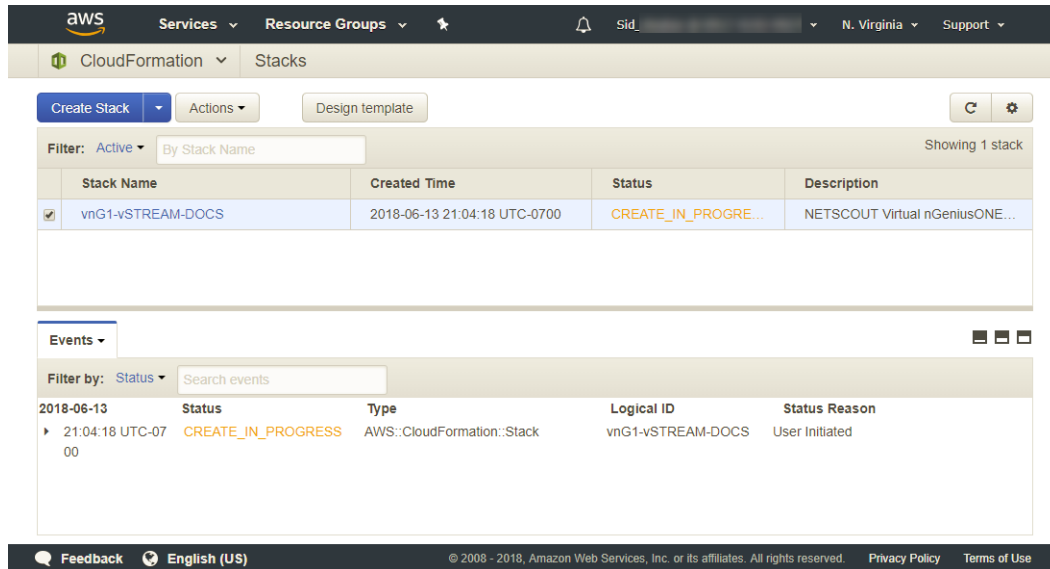


Figure 5 Stack Creation in Progress

- 9 After a few minutes, you can see the instance(s) in the EC2 Management Console's **Instances** list. (Figure 6).

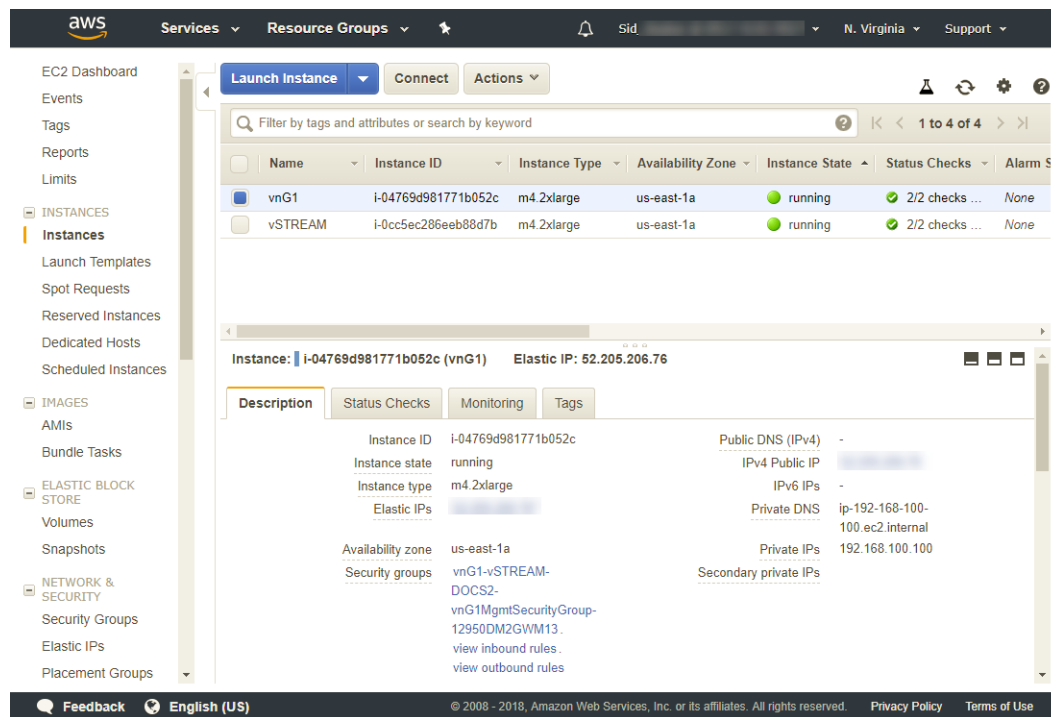


Figure 6 Newly Created Instances

Instances are deployed with a public IP address that lets you connect to them from the Internet. If you deployed the combined Virtual nGeniusONE and vSTREAM CloudFormation template, you can open a web browser and connect to the public IP address for the Virtual nGeniusONE server and see that its associated vSTREAM virtual appliance was automatically added in Device Configuration and is available for analysis (Figure 6). For example:

http://<Public IP Address>:8080/console/

The default credentials for Virtual nGeniusONE are **administrator/netscout1**.

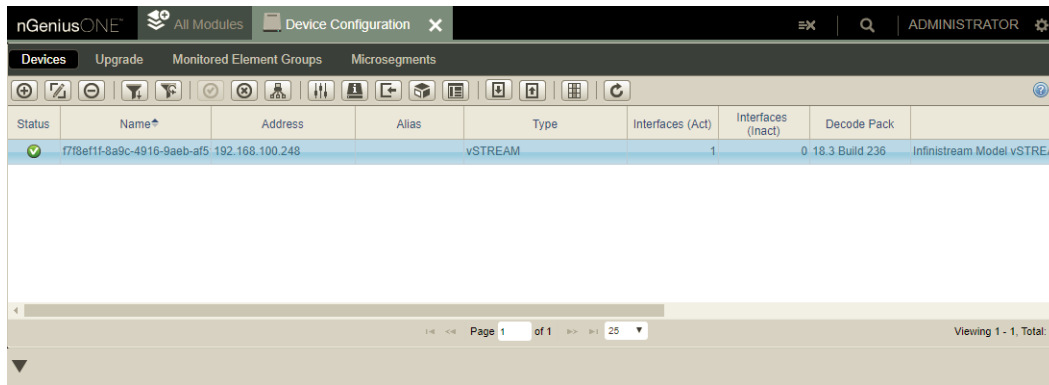


Figure 7 Virtual nGeniusONE Deployed in AWS with vSTREAM Automatically Added

Refer to "[Connecting to Instances](#)" on page 18 for information on opening an SSH connection to the operating system of the new instances.

Template Parameters

Table 3 lists and describes the parameters you must supply as part of the deployment of the NETSCOUT Application Performance Management solution CloudFormation templates. The table lists the parameters from the combined Virtual nGeniusONE and vSTREAM template. If you are using one of the templates for an individual Virtual nGeniusONE or vSTREAM, the parameters you supply will be a subset of those in Table 3.

Table 3 Configuration Parameters for CloudFormation Templates

Parameter	Description
Stack name	Provide a unique name for this stack.
General Configuration	
AvailabilityZone	Select an AWS Availability Zone to be used for the deployment from the dropdown list. The list includes the Availability Zones accessible from your account
KeyName	Select an existing keypair from the dropdown to be used for access to the instance(s). You can review your existing keypairs in Network & Security > Key Pairs from the EC2 Dashboard.
Virtual nGeniusONE Configuration	
vnG1InstanceType	<p>Choose an Instance Type for the Virtual nGeniusONE deployment from the dropdown list.</p> <p>Each Instance Type provides a different combination of computing resources (CPU, memory, storage, and networking). You can select from the following Instance Types for Virtual nGeniusONE:</p> <ul style="list-style-type: none"> • m4.2xlarge • m4.4xlarge • m5.2xlarge • m5.4xlarge <p>NOTE: Instance Types are priced differently in the AWS Public Cloud based on the amount of resources provisioned. Refer to https://aws.amazon.com/ec2/instance-types for details.</p>

Table 3 Configuration Parameters for CloudFormation Templates


Parameter	Description
vnG1ServerIP	<p>Supply a static, private IP address in an existing subnet belonging to the target VPC. This should match the IP address you used to register Virtual nGeniusONE on the NETSCOUT MasterCare Portal.</p> <p>Note: The CloudFormation template only supports IPv4 addresses in this release. Contact NETSCOUT for assistance if you require IPV6 support.</p>
vSTREAM Configuration	
vSTREAMInstanceType	<p>Choose an Instance Type for the vSTREAM deployment from the dropdown list.</p> <p>Each Instance Type provides a different combination of computing resources (CPU, memory, storage, and networking). You can select from the following Instance Types for vSTREAM:</p> <ul style="list-style-type: none"> • m4.2xlarge • m4.4xlarge • m5.2xlarge • m5.4xlarge <p>NOTE: Instance Types are priced differently in the AWS Public Cloud based on the amount of resources provisioned. Refer to https://aws.amazon.com/ec2/instance-types for details.</p>
VolumeSize	Use the dropdown to specify the size of the vSTREAM storage volume. The default is 100 GB.
VolumeEncrypt	Use the dropdown to specify whether the vSTREAM storage volume should be encrypted. By default, it is not.
Network	
VpcId	<p>Use the dropdown to select an existing VPC for the deployment. If you are deploying Virtual nGeniusONE and vSTREAM together, both AMIs will be deployed in the same VPC.</p> <p>If you have many VPCs associated with your account, you can type an entry in the field to narrow the results to matching IDs or name tag values.</p>
MgmtSubnet	<p>Use the dropdown list to select an existing subnet for Management traffic between Virtual nGeniusONE and managed vSTREAM/vSCOUT devices. The dropdown lists the subnets already provisioned for your account.</p> <p>If you are deploying Virtual nGeniusONE and vSTREAM together, the subnet selected here is used for the Management port on both instances.</p> <p>Note that the Capture and Management subnets must both be in the same AWS Availability Zone.</p> <p>If you have many subnets associated with your account, you can type an entry in the field to narrow the results to matching IDs or name tag values.</p>

Table 3 Configuration Parameters for CloudFormation Templates

Parameter	Description
CaptureSubnet	<p>Use the dropdown lists to select an existing subnet for the vSTREAM monitoring interface. The dropdown lists the subnets already provisioned for your account.</p> <p>You can either select the same subnet you are using for Management traffic or choose a different one. Note that the Capture and Management subnets must both be in the same AWS Availability Zone.</p> <p>In general, it's a good practice to keep management traffic separate from the capture subnet. This way, you aren't adding additional traffic to the monitored subnet and you also have a means of contacting a managed vSTREAM/vSCOUT if its capture subnet goes down.</p> <p>If you have many subnets associated with your account, you can type an entry in the field to narrow the results to matching IDs or name tag values.</p>
SSHLocation	<p>You can use this field to limit the range of IP addresses from which the deployed instance(s) will accept SSH connections. This field is optional.</p> <p>If you are deploying Virtual nGeniusONE and vSTREAM together, the range specified here is used for SSH connections to the Management port on both instances.</p>
License	
vSTREAMSerialNumber	<p>Supply the Serial Number and Password you received from the MasterCare Portal when you registered your software in "Obtaining Licensing Information" on page 11.</p>
vSTREAMPassword	
vnG1 SerialNumber	<p>Supply the Serial Number and Password you received from the MasterCare Portal when you registered your software in "Obtaining Licensing Information" on page 11.</p> <p>Make sure the IP address you used to obtain the Serial Number and Password is the same as the one specified for the Virtual nGeniusONE IP address in the template, above.</p>
vnG1Password	

Connecting to Instances

Connect to the operating system of NETSCOUT instances using the key pair you selected as part of the CloudFormation template as follows:

- 1 Click the **Services** dropdown  in the AWS Management Console and select **Compute > EC2**.
- 2 Click the **Instances** entry in the left column.
- 3 Make sure the desired instance is selected.
- 4 Click the **Connect** button (Figure 8).

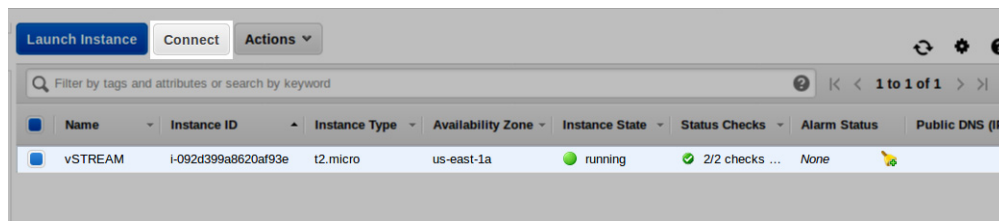


Figure 8 Connecting to the vSTREAM Instance

5 The **Connect To Your Instance** window provides guidance on using SSH to connect to the instance remotely, either using the Linux **ssh** command or a Windows client, such as PuTTY. Keep in mind the following:

- You will need access to your private key file. The **Connect To Your Instance** window reminds you of the name of the private key file you associated with the instance.
- Your private key file must not be publicly viewable for SSH to work. You can use **chmod 400 <keyfile-name>** to make your private key file private.
- The **Connect To Your instance** window shows you the IP address you should use to connect to your instance along with the correct SSH syntax. For example, in [Figure 9](#), we can use the following SSH command to log in to the default **centos** account provided with NETSCOUT AMIs:

```
$ ssh -i "vstream-keys.pem" centos@34.203.23.249
```

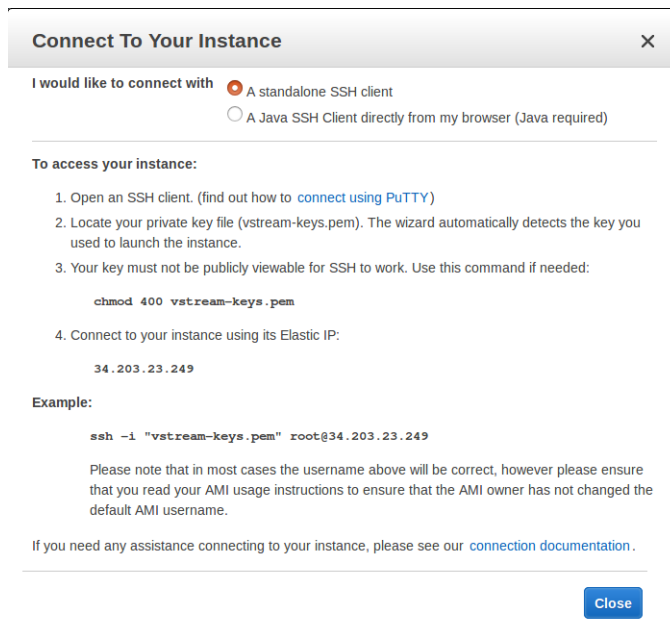


Figure 9 The Connect To Your Instance Window

6 Click **Close** on the Connect To Your Instance window.

7 Open a terminal window and use the **ssh** command to connect to the NETSCOUT instance:

```
$ ssh -i "<keyfile.pem>" centos@<NETSCOUT_IP>
```

8 Once logged in as the **centos** user, run the following to use the **root** account:

```
$ sudo su
```

Note: Use the default password of netscout (vSTREAM) or netscout1 (Virtual nGeniusONE) the first time you log in to the operating system. After you log in the first time, you can modify the default password using the **passwd** command.

Deploying vSCOUT from Virtual nGeniusONE

The installation files for the vSCOUT agent are bundled with the Virtual nGeniusONE image and stored under **/opt/vSCOUT** once the instance has been deployed. There are separate installers depending on the target environment.

Refer to the *vSCOUT Installation Guide* for details on selecting the correct installer for your target environment and performing the installation. The general procedure is as follows:

- 1 Copy the installer for your operating system to the target instance.
- 2 If you are installing in Linux, you can preconfigure the address of the managing Virtual nGeniusONE server in an **nsagent_config.cfg** configuration file. The values stored in this file are read in during installation and allow the newly installed vSCOUT agent to add itself to Virtual nGeniusONE automatically. Refer to the *vSCOUT Installation Guide* for details on how to do this.

Note: If you are installing in Windows, the installation wizard prompts you to supply the IP address of the managing Virtual nGeniusONE server.

- 3 Run the installer.
- 4 When installation is complete, open the Agent Configuration Utility (localconsole) and ensure that **[4] Change Config Server Address** is set to the address of the managing Virtual nGeniusONE server.

License Information

By default, the Virtual nGeniusONE component of the NETSCOUT Application Performance Management solution provides support for 25 Type 1 monitoring interfaces.

The table below summarizes how Type 1 interface licenses are consumed by managed vSCOUT, vSTREAM, and InfiniStream appliances:

Interface Type	vSCOUT License Consumption in Virtual nGeniusONE
vSCOUT Standard	Every five vSCOUT standard interfaces managed in Virtual nGeniusONE count as one Type 1 interface. In other words, each vSCOUT standard interface counts as 1/5 th of a Type 1 interface.
vSCOUT Advanced	Each vSCOUT Advanced interface managed in Virtual nGeniusONE counts as one Type 1 interface. In other words, each vSCOUT Advanced interface counts as a full Type 1 interface.
vSTREAM / InfiniStream	Each vSTREAM or InfiniStream monitoring interface managed in Virtual nGeniusONE counts as a full Type 1 interface .

So, for example, using the information in the table above, a combination of 25 vSCOUT Standard agents and five vSTREAM appliances, all with one monitoring interface each, would consume a total of 10 Type 1 interfaces.

Note: Fractional interface counts are rounded up to the next Type 1 interface. So, for example, if you have six vSCOUTs operating in standard mode with one interface each, a total of one and 1/5ths Type 1 licenses are consumed. However, the actual consumption is rounded up to two Type 1 licenses.

About vCPU Block Licenses for vSTREAM Virtual Appliances

In addition to the interface licenses consumed by vSTREAM, you must also license the vCPUs used by each vSTREAM in Virtual nGeniusONE:

License Type	Description
vCPU Licenses (vSTREAM Virtual Appliances)	<p>NETSCOUT uses licenses to control the maximum number of vCPUs provisioned across all vSTREAM instances managed by Virtual nGeniusONE. You purchase and apply vCPU licenses in blocks of eight. Keep in mind the following:</p> <ul style="list-style-type: none">• Blocks cannot be subdivided. For example, a vSTREAM instance provisioned with 12 vCPUs requires two 8-vCPU block licenses. The four unused vCPUs cannot be used by a second vSTREAM instance.• Eight-vCPU block licenses can be moved from one vSTREAM instance to another. When a managed vSTREAM is removed from Virtual nGeniusONE, its allotted 8-vCPU block licenses are returned to the Virtual nGeniusONE pool and can be used for newly-added vSTREAM instances. <p>Virtual nGeniusONE will display an error message if you try to add a vSTREAM whose provisioned vCPUs would exceed the licensed capacity.</p>

About vSCOUT Modes (Standard or Advanced)

You can configure vSCOUT to operate in either vSCOUT standard (the default) or vSCOUT Advanced mode. [Table 4](#) summarizes the differences in features and Type 1 license consumption between the different modes:

Table 4 vSCOUT Modes Summarized

vSCOUT Mode	Feature Summary	Type 1 License Consumption per vSCOUT Interface
vSCOUT Standard (Default)	All traditional vSCOUT functionality, including vSCOUT ASI analysis (refer to the <i>vSCOUT Installation Guide</i> for a summary).	1/5th of a Type 1 interface per vSCOUT standard interface
vSCOUT Advanced	All vSCOUT Standard functionality, plus on-demand data capture, basic active tests (ping and port availability), and support for Threat Monitor in nGeniusONE, providing proactive DDoS and cyber threat detection. Note that vSCOUT Advanced requires a minimum memory assignment of 2 GB. You can assign memory to vSCOUT from the Agent Configuration utility command line using the set vscout_config MEM_SIZE <memory> command. Refer to the <i>vSCOUT Installation Guide</i> for details. If you try to enable Advanced mode on an agent with less than 2 GB of memory assigned, it will revert to standard mode.	One Type 1 interface per vSCOUT Advanced interface.

You use the **set vscout_config VSCOUT_MODE <adv | std>** command from the Agent Configuration Utility command line to change the vSCOUT mode. Refer to the *vSCOUT Installation Guide* for details.

Virtual nGeniusONE Deployment Notes

This section provides operational notes and answers frequently asked questions regarding Virtual nGeniusONE:

Table 5 Tips and Notes

Summary	Description
Identification in Server Management	When operating as a local server, Virtual nGeniusONE is identified as Virtual nGeniusONE in the managing server's Server Management interface.

Table 5 Tips and Notes

Summary	Description
<p>Support for Direct Cloud Connections</p>	<p>Services such as AWS Direct Connect link the traditional, office-based data center with services in the public cloud over a secure connection. This allows connection to instances in the public cloud using private/internal IP addresses instead of relying on public-facing IP addresses.</p> <p>When using services such as Direct Connect, you have access to some useful deployment Virtual nGeniusONE models:</p> <p>Local Servers in the Cloud, Distributed Global Manager in the Data Center</p> <p>With the potential for many vSCOUTs and vSTREAMs in the public cloud, it's often helpful to locate a separate Virtual nGeniusONE server near each group of vSCOUTs and vSTREAMs (for example, within the same Amazon EC2 Region as the instrumentation). Because cloud vendors often charge higher rates for traffic flowing out of a tenant's public cloud-space, it can be cost-efficient to locate a Virtual nGeniusONE in the same availability zone as its managed vSTREAM and VSCOUT instances.</p> <p>Depending on your design, you can manage the local servers from a Distributed Global Manager either in the public cloud or, more commonly, from an existing Distributed Global Manager in the data center, all connected using private/internal addresses over a direct cloud connection.</p>
<p>Public Cloud Addressing</p>	<p>You use different IP addresses when integrating Virtual nGeniusONE with other NETSCOUT products depending on where the products reside:</p> <ul style="list-style-type: none"> • When integrating products that reside in the same public cloud space, use private IP addresses. For example, when adding vSCOUT or vSTREAM to a Virtual nGeniusONE residing in the same tenant's availability zone, you use their private IP addresses. • When integrating a product inside the public cloud with one outside the public cloud, you can still use private/internal IP addresses when using a direct cloud connection service such as AWS Direct Connect, as described above. <p>If you are not using a direct cloud connection service, you can use either fully-qualified domain names or elastic IP addresses to integrate products inside the cloud with those outside. Elastic IP addresses are dynamically-assigned, public-facing IP addresses that remain consistent across reboots until explicitly released.</p> <p>For example, if you are associating a local Virtual nGeniusONE server in the public cloud from a Distributed Global Manager located in your data center and you are not using a direct cloud connect service, you could associate the two using their fully-qualified domain names or public-facing IP addresses.</p>

Troubleshooting NETSCOUT Application Performance Management for AWS

If you experience operational or performance issues while using the NETSCOUT Application Performance Management for AWS solution, contact your NETSCOUT Support representative using the information in "[Contacting NETSCOUT SYSTEMS, INC.](#)" on [page iv](#).

Activating MasterCare Support

All customers who have purchased MasterCare must activate their account online. If you have not previously done so, access the following URL to activate your MasterCare account:

<https://my.netscout.com/Pages/default.aspx>

Enter the required information in the registration activation form. Your MasterCare account and web login access are confirmed within several business days.

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