VM-Series Auto Scaling CloudFormation Template (CFT v1.2.2)

Release Notes

Revision Date: June 19, 2019

Review important information about open issues and workarounds, and issues that are addressed in the current version of the AWS auto scaling template.

What's New

The VM-Series Auto Scaling CloudFormation Template allows you to deploy an auto scaling tier of VM-Series firewalls in a AWS load balancer sandwich topology.

CFT version 1.2 includes the following functionality:

- Support for BYOL licenses and subscriptions and PAYG bundle 1, in addition to the previously supported PAYG bundle 2.
- Allows you to update the auto scaling tier of VM-Series firewalls to a different PAN-OS version and migrate across any of the three licensing choices.
- Supports the AWS CloudFormation Stack Update capability to make changes to stack settings. The parameters you can change are: AMI ID, firewall API key, instance size, security group, license deactivation key for removing the licenses attached to a firewall before it is deleted when a scale-in event is triggered, and the ASG parameters.

  Changing the AMI ID and EC2 instance size allows you to change the launch configuration for deploying VM-Series firewalls within an auto scaling group. Look up the list of AWS regions for CFT 1.2 and the corresponding AMI IDs for PAN-OS 7.1.11 or 8.0.0 in each region.

Version 1.2.2

Version 1.2.2 has bug fixes only. For all new deployments, get the latest files from the GitHub repository. If you have deployed template version 1.2.0. see Upgrade from Version 1.2.0 to Version 1.2.1 and Later.

Version 1.2.1

Version 1.2.1 has bug fixes only. For all new deployments, get the latest files from the GitHub repository. If you have deployed template version 1.2.0. see Upgrade from Version 1.2.0 to Version 1.2.1 and Later.

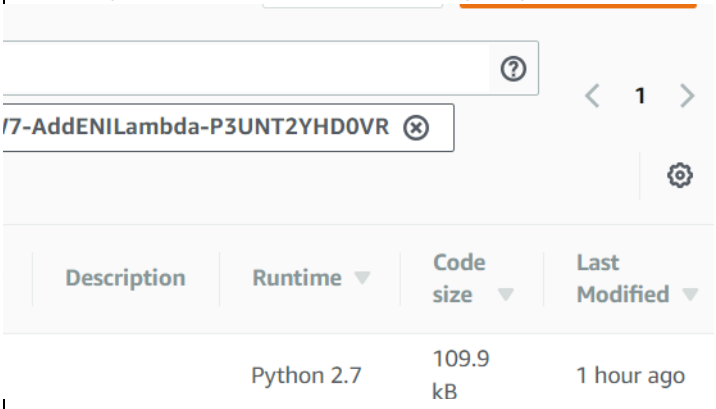
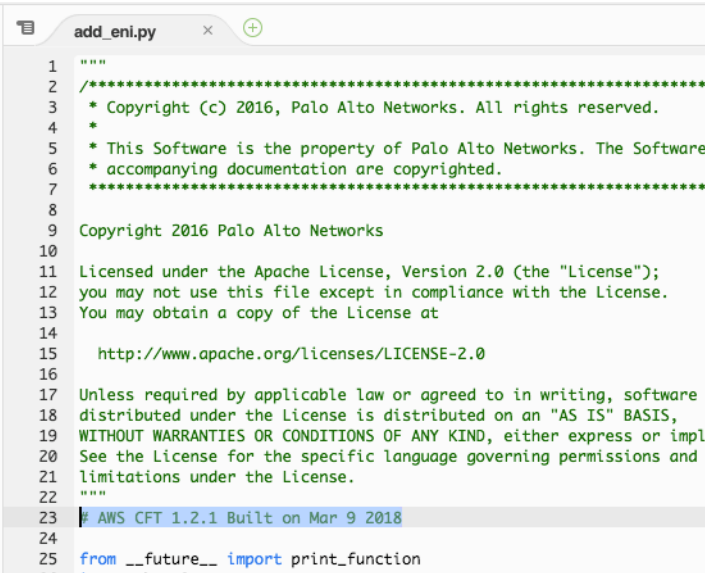
Upgrade from Version 1.2.0 to Version 1.2.1 and Later

If you have deployed the auto scaling template version 1.2.0, you need to update the AWS Lambda functions that are being used in your currently deployed stack. Use the following procedure to update the Lambda functions in the panw-aws.zip file and get the fixes for the issues addressed in version 1.2.1 and later:

Upgrade from Auto Scaling Template version 1.2.0 to 1.2.1	
Step 1 Set up access to the AWS CLI.	1. Refer to the AWS documentation to set up the AWS CLI: https://docs.aws.amazon.com/lambda/latest/dg/setup-awscli.html  Make sure to set the AWS region to match the region in which you have deployed version 1.2.0 of the auto scaling template. 2. Enter **`aws configure`** to make sure the access keys are setup correctly: https://docs.aws.amazon.com/cli/latest/userguide/cli-chap-getting-started.html

Upgrade from Auto Scaling Template version 1.2.0 to 1.2.1	

Step 2 Copy and replace the AWS Lambda functions in your currently deployed stack.	1. Copy the *panw-aws.zip* file from the GitHub repository to the system where you are running the CLI.
	2. To get the AWS Lambda function names used in your current stack, use the following command:
	• On a Macintosh or Linux system:
	`aws lambda list-functions | grep FunctionName | grep <stack_name>`
	replace <*stack_name*> with the stack name in your AWS region. For example:
	user@Mac:~/code/PAN/aws$ **`aws lambda list-functions | grep FunctionName | grep rr-ascE`**
	`"FunctionName": "rr-ascE-az2n-Z3ZVPHT2RRLD-InitLambda-SD3ASBPGOUTQ",`
	`"FunctionName": "rr-ascE-az2n-Z3ZVPHT2RRLD-lambda-sched-event",`
	`"FunctionName": "rr-ascE-az2n-Z3ZVPHT2RRLD-AddENILambda-13825VV7YMOLI"`
	• On a Windows system:
	`aws lambda list-functions --output json | findstr FunctionName |findstr <stack_name>`
	replace <*stack_name*> with the stack name in your AWS region. For example:
	C:\Users\windows>**`aws lambda list-functions --output json | findstr FunctionName | findstr OarkSTK16`**
	`"FunctionName": "OarkSTK16-az2-ZOWPZVEB4PW7-AddENILambda-P3UNT2YHD0VR",`
	`"FunctionName": "OarkSTK16-az2-ZOWPZVEB4PW7-lambda-sched-event",`
	`"FunctionName": "OarkSTK16-az2-ZOWPZVEB4PW7-InitLambda-15S9VWF7TX1G4",`
	3. Run the following command to update the AWS Lambda function code for each function listed above:
	`aws lambda update-function-code --function-name <function_name> --zip-file fileb://<path_to_zip_file>`
	where `<path_to_zip_file>` is the location where you copied the panw-aws.zip file. For example:
	`aws lambda update-function-code --function-name OarkSTK16-az2-ZOWPZVEB4PW7-AddENILambda-P3UNT2YHD0VR --zip-file fileb://C:\AWS\Version-1-2-1\panw-aws.zip`

Upgrade from Auto Scaling Template version 1.2.0 to 1.2.1	
Step 3 Verify that you see the updated files on the AWS Management Console.	1. Log in to the AWS Managament Console. 2. Select **Services > Lambda > Functions**, and search for the function name you just updated. 3. Verify that the Last Modified timestamp is updated.  4. Select the function name , and verify that line 23 displays the version 1.2.1. 

Addressed Issues

The following list describes issues addressed in the AWS auto scaling template version 1.2.2:

Issue ID	Description
PAN-115976	Fixed an issue that caused the VM-Series firewwall auto scaling groups (ASGs) to continuously scale in and scale out.

The following list describes issues addressed in the AWS auto scaling template version 1.2.1:

Issue ID	Description
HYPI-52	The active licenses on the BYOL instances of the VM-Series firewall are now released when you delete a stack. The license deactivation process when a scale-in event occurs been also been addressed. However, on rare occasions this process fails. See HYPI-63 in the known issues list.
HYPI-174	Addressed an issue that caused the deletion of all auto scaling groups of VM-Series firewalls when a scale-in event occurred.
HYPI-235	If you are using Panorama to manage the firewalls deployed using the auto scaling template, the firewalls are now removed from the managed devices list on Panorama when a scale-in event occurs and the firewall instances are deleted.

For PAN-OS 7.1.11 and PAN-OS 8.0.0, refer to the Addressed Issues for 7.1 and 8.0.

Known Issues

The following list describes known issues in the AWS CFT version 1.2.1:

Issue ID	Description
HYPI-59	For VM-Series firewalls running PAN-OS 7.1.x license activation will fail if the bootstrap.xml file has the validate Palo Alto Networks update server identity enabled (<server-verification>yes</server-verification>). **Workaround**: Disable the update server validation check to successfully activate licenses on your firewalls.
HYPI-61	If you are using Panorama to manage the firewalls deployed using the CFT, the firewalls are not automatically removed from the managed devices list on Panorama when you delete the stack. **Workaround**: Delete the internal ELB on AWS before you delete the stack. Deleting the internal ELB allows the VM-Series firewalls to shut down gracefully, and Panorama can remove the firewalls from the list of managed devices.
HYPI-63	On a scale-in event, the AWS Lambda functions included with the auto scaling template send a license deactivation request to the Palo Alto Networks server to release the VM-Series firewall license (for BYOL). The lambda functions retry the request multiple times, but on occasion, the license deactivation process is unsuccessful.
HYPI-267	Stack deletion fails intermittently. **Workaround**: Manually shutdown the VM-Series firewall instance(s) and then delete the stack.

For PAN-OS 7.1.11 and PAN-OS 8.0.0, refer to the Known issues for 7.1 and 8.0, the page includes a link for critical updates.

Getting Help

Related Documentation

Refer to the following documentation on the Technical Documentation portal or search the documentation for more information on our products:

- **PAN-OS Administrator's Guide**—Provides the concepts and solutions to get the most out of your Palo Alto Networks next-generation firewalls. This includes taking you through the initial configuration and basic set up on your Palo Alto Networks firewalls for PAN-OS 7.1 and PAN-OS 8.0.
- **Panorama Administrator's Guide**—Provides the basic framework to quickly set up the Panorama™ virtual appliance or an M-Series appliance on version 7.1 or 8.0 for centralized administration of the Palo Alto Networks firewalls.
- **VM-Series Deployment Guide**—Provides details on deploying and licensing the VM-Series firewall on all supported hypervisors for PAN-OS 7.1 and PAN-OS 8.0.
- **Online Help System**—Detailed, context-sensitive help system for PAN-OS 7.1 and PAN-OS 8.0 integrated with the firewall web interface.

Requesting Support

For contacting support, for information on support programs, to manage your account or devices, or to open a support case, refer to https://www.paloaltonetworks.com/support/tabs/overview.html.

To provide feedback on the documentation, please write to us at: documentation@paloaltonetworks.com.

Contact Information

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