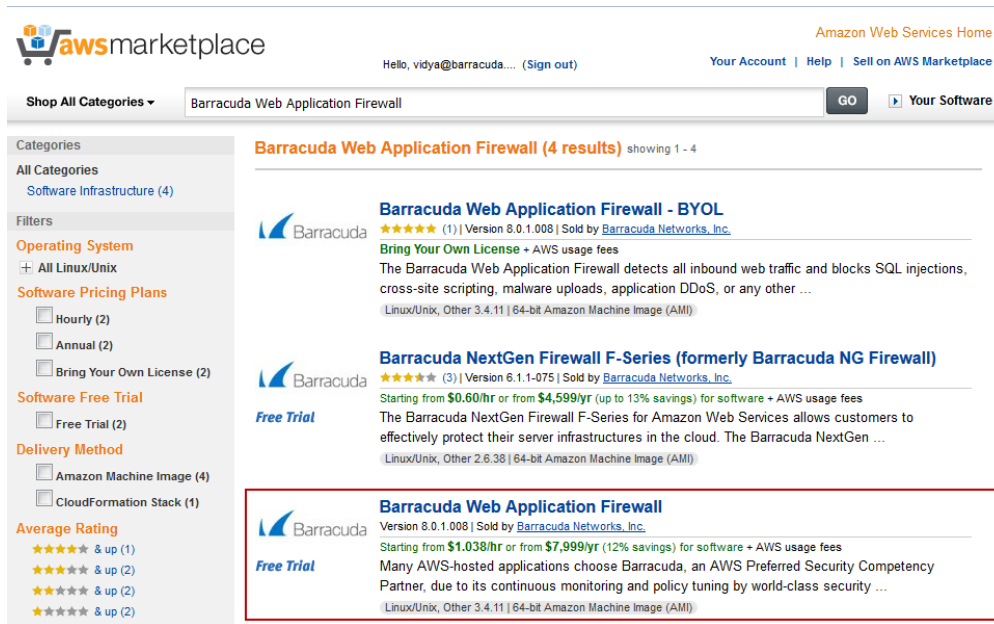




Importing the Barracuda CloudGen WAF for AWS PAYG CFT and Deploying the Instance

Perform the steps below to import the Barracuda CloudGen WAF for AWS Pay-As-You-Go CloudFormation Template and deploy the instance:

1. Go to the [AWS Marketplace](#), type **Barracuda CloudGen WAF for AWS** in the *Search AWS Marketplace* text box and click **GO**.
2. Select **Barracuda CloudGen WAF for AWS**



3. The [Barracuda CloudGen WAF](#) page appears on the AWS Marketplace.
4. In the **Pricing Details** panel:
 1. Select the region for the instance to be deployed from the **“For region”** drop-down list.
 2. Select **Barracuda CloudGen WAF for AWS** as **Delivery Methods**.
 3. Click **Continue**.



The screenshot shows the AWS Marketplace product page for Barracuda Web Application Firewall. The page includes the following elements:

- Header:** AWS Marketplace logo, user profile (Hello, vidya@barracuda...), and navigation links (Your Account, Help, Sell on AWS Marketplace).
- Search Bar:** A search bar with the text "Search AWS Marketplace" and a "GO" button.
- Product Title:** "Barracuda Web Application Firewall" in orange text.
- Seller Information:** "Sold by: Barracuda Networks, Inc. | See product video".
- Product Description:** A paragraph starting with "30 Day Free Trial Available - Many AWS-hosted applications choose Barracuda..."
- Customer Rating:** "Be the first to review this product".
- Latest Version:** "8.0.1.008 (Other available versions)".
- Operating System:** "Linux/Unix, Other 3.4.11".
- Delivery Methods:** "Single AMI" with a sub-description: "64-bit Amazon Machine Image (AMI) (learn more) Single box deployment of the product".
- Pricing Details:** A section with a dropdown for "For region" set to "US East (N. Virginia)", "Delivery Methods" with radio buttons for "Single AMI" and "Barracuda Web Application Firewall" (the latter is selected and highlighted with a red box), and "Fees" with a toggle for "Hourly" (selected) and "Annual".
- Estimated Price:** "Estimated Software : \$2.076/hr using 2 x m3.medium machines".
- Continue Button:** A yellow "Continue" button with a red arrow pointing to it from the left.

5. In the **Launch on EC2** page:

1. Select the Barracuda CloudGen WAF version that you want to deploy on AWS.
2. Select the region for the instance.
3. Ensure the **Deployment Options** is set to *Barracuda CloudGen WAF for AWS*.
4. Check the software pricing for subscription term (Hourly or Annual).
5. Click **Launch with CloudFormation Console**.



Launch on EC2:

Barracuda Web Application Firewall

1-Click Launch

Review, modify, and launch

Custom Launch

CloudFormation, EC2 Console, APIs or CLI

Pricing Details

For Region
US East (N. Virginia)

Delivery Methods
Barracuda Web Application Firewall

Your Free Trial has expired

Estimated Price

Estimated Software : \$2.076/hr using 2 x m3.medium machines

Estimated infrastructure : \$136.00/month

- Estimated infrastructure costs are a typical default deployment with 24x7 usage with the following assumptions
- EC2** : 2 x m3.medium; 100% usage
- VPC** : 1 connection; 100% usage
- S3** : 1 GB
- CloudWatch** : 1 AWS Resource; 15 minute intervals
- SNS** : SNS Service Used
- Total hourly fees will vary by instance type and EC2 region
- For additional savings, you can select annual pricing to get 12% off listed price.

Launching Options

- You can click "Launch with CloudFormation Console" button below and follow the steps in the CloudFormation console to launch a stack of this software.
- If you prefer to launch just an AMI, you can select Single AMI and click the "Launch with EC2 Console" and follow the instructions to launch an instance of this software.
- If you want to only launch the AMI, you can also find and launch these AMIs by searching for the AMI IDs (shown below) in the "Community AMIs" tab of the EC2 Console [↗](#). Launch Wizard, or launch with the [EC2 APIs](#) [↗](#).
- You can view this information at a later time by visiting the Your Software page. For help, see [step-by-step instructions](#) [↗](#) for launching Marketplace Products from the AWS Console.

Select a Version

8.0.1.008, released 02/08/2016

Usage Instructions

Select a Region

US East (N. Virginia)

Deployment Options

Single AMI
64-bit Amazon Machine Image (AMI) [\(learn more\)](#)
Single box deployment of the product

Barracuda Web Application Firewall
CloudFormation template [\(view\)](#)
This is a deployment of a WAF cluster in an autoscaling group. The autoscaling group is present within a VPC. The group contains members across multiple availability zones for maximum redundancy. The autoscaling groups of Web Application Firewalls inspect traffic going across to multiple web application deployments which themselves autoscale within the VPC and prevents attacks. ELBs are used to load balance traffic from the WAF cluster to the web application clusters.

Software Pricing

<p>Subscription Term</p> <p><input checked="" type="radio"/> Hourly</p> <p><input type="radio"/> Annual</p>	<p>Applicable Instance Type</p> <div style="border: 1px solid #ccc; padding: 5px; background-color: #f0f0f0;"> <p>Software fee</p> <p>Varies</p> <p>Depends on instance type, reference pricing chart.</p> </div>
--	---

Launch

Launch with CloudFormation Console

Security Group

The vendor recommends using the following security group policies. You will be able to select these settings or configure your own when launching this software.

Connection Method	Protocol	Port Range	Source (IP or Group)
	tcp	8000 - 8000	0.0.0.0/0
HTTPS	tcp	443 - 443	0.0.0.0/0
HTTP	tcp	80 - 80	0.0.0.0/0

Release Notes

<https://techlib.barracuda.com/WAF/New> [↗](#)

6. In the **Create A New Stack** page, click **Next**:

1. On the **Specify Details** page, do the following configuration:

1. In the **Specify Details** section:

1. Enter a name for the CloudFormation stack in the **Stack Name** field.

2. In the **Parameters** section, specify values for the following:



Network Configuration

Parameter Name	Description
Which VPC should this be deployed to?	Select the VPC that you wish to deploy the Barracuda CloudGen WAF instance(s) from the drop-down list.
Availability Zone(s)	Select the availability zones from the multi-select drop-down list. The VPC you choose to deploy in must be available across these availability zones. Note: It is recommended to deploy the instances in multiple availability zones.
Subnet ID(s)	Select the subnet ID(s) associated with the availability zone(s) where the Barracuda CloudGen WAF instance(s) needs to be deployed. Note that these subnets must be part of the VPC that you choose.
Elastic Load Balancer(s)	Enter the name of the elastic load balancer(s) (ELB) that needs to be used to load balance/distribute the traffic between the Barracuda CloudGen WAF(s). The ELB(s) should be connected to all the subnets that are used for this deployment and be part of the VPC that is chosen for this deployment.

Auto Scaling Configuration

Parameter Name	Description
Instance Type	Select an instance type depending on your requirement.
Minimum Instances	Enter the minimum number of Barracuda CloudGen WAF instance(s) that needs to be up and running continuously in the Auto Scaling group. Default: 1
Maximum Instances	Enter the maximum number of Barracuda CloudGen WAF instance(s) to be deployed in the Auto Scaling group. Default: 4
Notification Email	Enter the email address(es) to which you want Amazon SNS to send email notifications.

Barracuda CloudGen WAF Bootstrapping Configuration

Parameter Name	Description
Service Name	Enter a name for the service that needs to be created on the Barracuda CloudGen WAF(s).
Service Port	Enter the port number on which the service is listening to. Port 8000 and 8443 should not be used for Service Port when deploying the Barracuda CloudGen WAF instances using the CloudFormation Template (CFT), as these ports are already used for management (MGMT) access of the Barracuda CloudGen WAF.
Server IP/FQDN	Enter the IP address of the server, or Fully Qualified Domain Name (FQDN) of the ELB front-ending the servers that needs to be protected by the Barracuda CloudGen WAF(s) . If you are deploying a downstream ELB, specify the FQDN of the ELB to which the Barracuda CloudGen WAF needs to be connected.
Server Port	Enter the port number associated with the server mentioned in Server IP/FQDN .

Barracuda Web Application Firewall



- Select Template
- Specify Details
- Options
- Review

Specify Details

Specify a stack name and parameter values. You can use or change the default parameter values, which are defined in the AWS CloudFormation template. [Learn more](#)

Stack name

Parameters

Networking Configuration

Which VPC should this be deployed to?
Select the VPC chosen for this deployment

Availability Zone(s)
Select the Availability Zones of the VPC that will be used for this deployment. Recommended deployment is across multiple AZs

Subnet ID(s)
Select subnet IDs which has been already assigned to the VPC used. These subnets must reside on AZ's chosen

Elastic Load Balancer(s) Enter a valid list of pre-configured Elastic Load Balancer names associated to the VPC and Subnet

Auto Scaling Configuration

Instance Type Choose the instance type to use for this AutoScale group

Minimum Instances Enter the minimum number of WAF instances (1-20) to be available in the AutoScale Group

Maximum Instances Enter the maximum number of WAF instances (2-20) that can be created in the AutoScale Group

Notification Email Enter a valid email address to send AutoScaling Event Notifications

Barracuda Web Application Firewall Bootstrapping Configuration

Service Name Specify the Service Name to be configured on the Barracuda Web Application Firewall

Service Port Specify the Service Port to be configured on the Barracuda Web Application Firewall. This port that is exposed to the outside world. Default is 80.

Server IP/FQDN Specify the Server IP (inside the VPC) to be configured on the Barracuda Web Application Firewall; alternatively, you can also enter the FQDN of the instance or a downstream ELB to connect to.

Server Port Specify the port number on which the web application responds. This is the port that the Barracuda Web Application Firewall will use to connect to the application

2. Click **Next** to continue.

3. On the **Options** page, enter a key-value pair to identify the instance(s) of this stack. Click **Next**.

Options

Tags

You can specify tags (key-value pairs) for resources in your stack. You can add up to 10 unique key-value pairs for each stack. [Learn more](#)

Key (127 characters maximum)	Value (255 characters maximum)
1 Name	Demo

Advanced

You can set additional options for your stack, like notification options and a stack policy. [Learn more](#)

4. On the **Review** page, verify the values you entered, select the IAM capability check box, and click **Create**.



- Select Template
- Specify Details
- Options
- Review**

Review

Template

Template URL https://s3-us-west-2.amazonaws.com/cf-templates-1ahk1p7a4w20-us-west-2/20160273DW-WAF_AUTOSCALING_CFT
Description Barracuda Web Application Firewall Auto Scaling and Bootstrapping
Estimate cost Cost

Stack details

Stack name BarracudaWAFStackOne
Networking Configuration
VPCLid vpc-e897d06d
AvailabilityZones us-west-2a,us-west-2b,us-west-2c
SubnetID subnet-96921wcf,subnet-b00551d5,subnet-d8d3b8af
ELBNames WFAutoScaleELB
Auto Scaling Configuration
InstanceType m3.medium
ScalingMinSize 1
ScalingMaxSize 4
NotificationEmail autoscale@barracuda.com
Barracuda Web Application Firewall Bootstrapping Configuration
WAFServiceName BarracudaWAFStack
WAFServicePort 80
WAFServerIP internal-AutoScaleInternalELB-457486678.us-west-2.elb.amazonaws.com
WAFServerPort 80
Create IAM resources Yes

Options

Tags
Name Demo

Advanced

Notification
Timeout none
Rollback on failure Yes

Capabilities

i The following resource(s) require capabilities: [AWS::IAM::InstanceProfile, AWS::IAM::Role]
 This template might include Identity and Access Management (IAM) resources, which can include groups, IAM users, and IAM roles with certain permissions. Ensure that the template you are using is from a trusted source. [Learn more](#)

I acknowledge that this template might cause AWS CloudFormation to create IAM resources.

Cancel Previous **Create**

As per the configuration in the CFT above:

1. A stack with the name "**BarracudaWAFStackOne**" will be created.
 2. Deploys one (1) Barracuda CloudGen WAF VM in one of the specified availability zones (us-west-2a/us-west-2b/us-west-2c), and subnets (subnet-b00551d5/subnet-d8d3b8af/subnet-96921wcf) with instance type as m3.medium, and gets added to the "**WFAutoScaleELB**" Elastic Load Balancer.
 3. Sends notification to **autoscale@barracuda.com**.
 4. Scales up the instance (up to total of 4) whenever the alarm triggers.
 5. Creates a service on the Barracuda CloudGen WAF with port 80 that protects the server(s) (**FQDN: internal-AutoScaleInternalELB-457486678.us-west-2.elb.amazonaws.com** on port 80). The created service can be accessed over the ELB, i.e., **WFAutoScaleELB**, using port 80.
 6. Creates an IAM role that has explicit access to the created S3 bucket. The IAM role is responsible for storing and retrieving the information of the deployed Barracuda CloudGen WAFs in this stack.
 7. Tags the deployed Barracuda CloudGen WAF VMs with **Name** as *Demo*.
 8. If AWS is unable to create the stack based on the inputs you provided, the stack will roll back.
7. The CFT now starts its operation. You can see the **CREATE_IN_PROGRESS** status displayed on the **CloudFormation Management Console** for the stack. Select the tabs and see the status of events and resources that are being created. An example of the successfully created resources is available in the screenshot below:



Create Stack
Actions
Design template

Showing 19 stacks

Stack Name	Created Time	Status	Description
BarracudaWAFStackOne	2016-01-27 16:34:01 UTC+0550	CREATE_IN_PROGRESS	Barracuda Web Application Firewall Auto Scaling and Bootstrapping

Overview
Outputs
Resources
Events
Template
Parameters
Tags
Stack Policy

2016-01-27	Status	Type	Logical ID	Status Reason
16:37:14 UTC+0550	CREATE_IN_PROGRESS	AWS: AutoScaling: AutoScalingGroup	BWAFAutoScalingGroup	Resource creation initiated
16:37:13 UTC+0550	CREATE_IN_PROGRESS	AWS: AutoScaling: AutoScalingGroup	BWAFAutoScalingGroup	
16:37:09 UTC+0550	CREATE_COMPLETE	AWS: AutoScaling: LaunchConfiguration	BWAFAutoScaleLaunchConfig	
16:37:08 UTC+0550	CREATE_IN_PROGRESS	AWS: AutoScaling: LaunchConfiguration	BWAFAutoScaleLaunchConfig	Resource creation initiated
16:37:08 UTC+0550	CREATE_IN_PROGRESS	AWS: AutoScaling: LaunchConfiguration	BWAFAutoScaleLaunchConfig	
16:37:00 UTC+0550	CREATE_COMPLETE	AWS: IAM: InstanceProfile	BWAFAutoScalingInstanceProfile	
16:34:59 UTC+0550	CREATE_IN_PROGRESS	AWS: IAM: InstanceProfile	BWAFAutoScalingInstanceProfile	Resource creation initiated
16:34:59 UTC+0550	CREATE_IN_PROGRESS	AWS: IAM: InstanceProfile	BWAFAutoScalingInstanceProfile	
16:34:56 UTC+0550	CREATE_COMPLETE	AWS: IAM: Role	BWAFAutoScalingS3AccessRole	
16:34:45 UTC+0550	CREATE_IN_PROGRESS	AWS: IAM: Role	BWAFAutoScalingS3AccessRole	Resource creation initiated
16:34:34 UTC+0550	CREATE_IN_PROGRESS	AWS: IAM: Role	BWAFAutoScalingS3AccessRole	
16:34:30 UTC+0550	CREATE_COMPLETE	AWS: S3: Bucket	S3Bucket	

Create Stack
Actions
Design template

Showing 19 stacks

Stack Name	Created Time	Status	Description
BarracudaWAFStackOne	2016-01-27 16:34:01 UTC+0550	CREATE_IN_PROGRESS	Barracuda Web Application Firewall Auto Scaling and Bootstrapping

Overview
Outputs
Resources
Events
Template
Parameters
Tags
Stack Policy

Logical ID	Physical ID	Type	Status	Status Reason
BWAFAutoScaleLaunchConfig	BarracudaWAFStackOne-BWAFAutoScaleLaunchConfig-14420TU1B	AWS: AutoScaling: LaunchConfiguration	CREATE_COMPLETE	
BWAFAutoScaleSecurityGroup	sg-6ea55a09	AWS: EC2: SecurityGroup	CREATE_COMPLETE	
BWAFAutoScalingGroup	BarracudaWAFStackOne-BWAFAutoScalingGroup-H35LYWBV3O5	AWS: AutoScaling: AutoScalingGroup	CREATE_IN_PROGRESS	Resource creation initiated
BWAFAutoScalingInstanceProfile	BarracudaWAFStackOne-BWAFAutoScalingInstanceProfile-6O0MVGEW8E7C	AWS: IAM: InstanceProfile	CREATE_COMPLETE	
BWAFAutoScalingS3AccessRole	BarracudaWAFStackOne-BWAFAutoScalingS3AccessRole-10S6PV0LM22LN	AWS: IAM: Role	CREATE_COMPLETE	
BWAFSecurityGroupRule1	BWAFSecurityGroupRule1	AWS: EC2: SecurityGroupingress	CREATE_COMPLETE	
BWAFSecurityGroupRule2	BWAFSecurityGroupRule2	AWS: EC2: SecurityGroupingress	CREATE_COMPLETE	
BWAFSecurityGroupRule3	BWAFSecurityGroupRule3	AWS: EC2: SecurityGroupingress	CREATE_COMPLETE	
BWAFSecurityGroupRule4	BWAFSecurityGroupRule4	AWS: EC2: SecurityGroupingress	CREATE_COMPLETE	
BWAFSecurityGroupRule5	BWAFSecurityGroupRule5	AWS: EC2: SecurityGroupingress	CREATE_COMPLETE	

Create Stack
Actions
Design template

Showing 19 stacks

Stack Name	Created Time	Status	Description
BarracudaWAFStackOne	2016-01-27 16:34:01 UTC+0550	CREATE_COMPLETE	Barracuda Web Application Firewall Auto Scaling and Bootstrapping

Overview
Outputs
Resources
Events
Template
Parameters
Tags
Stack Policy

Logical ID	Physical ID	Type	Status	Status Reason
BWAFAutoScaleLaunchConfig	BarracudaWAFStackOne-BWAFAutoScaleLaunchConfig-14420TU1B	AWS: AutoScaling: LaunchConfiguration	CREATE_COMPLETE	
BWAFAutoScaleSecurityGroup	sg-6ea55a09	AWS: EC2: SecurityGroup	CREATE_COMPLETE	
BWAFAutoScalingGroup	BarracudaWAFStackOne-BWAFAutoScalingGroup-H35LYWBV3O5	AWS: AutoScaling: AutoScalingGroup	CREATE_COMPLETE	

Next Step

Continue with the [Verify the Instance in the Auto Scaling Group](#) article.

