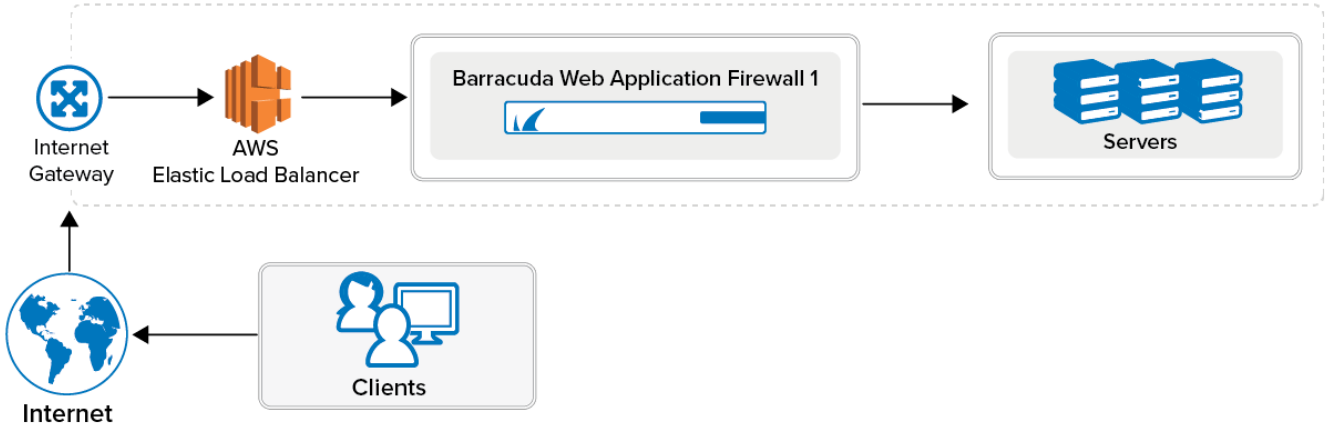
Amazon Web Services

https://campus.barracuda.com/doc/4853/

The Barracuda Web Application Firewall for AWS provides proven application security and data loss prevention for your applications on Amazon Web Service (AWS), including:

- Detecting and blocking attacks including SQL injections, Cross-Site Scripting, malware uploads, and volumetric or application DDoS.
- Authentication and access control allowing organizations to exercise strong user control.
- Scanning of outbound traffic for sensitive data, with admin control of masking or blocking information to prevent data leakage.
- Built-in load balancing and session management, allowing organizations to manage multiple applications behind a single instance of the Barracuda Web Application Firewall.

The Barracuda Web Application Firewall on Amazon Web Services protects your applications in the cloud.



Public cloud hosted deployment of the Barracuda Web Application Firewall on Amazon Web Services currently supports One-Arm Proxy Mode .

To meet a variety of performance requirements, the M3 Medium, M3 Large, M3 Extra Large, and M3.2 Extra Large instance types are supported. Depending on the instance type, you can have:

- Up to 8 vCPUs.
- Up to 30 GB of memory.
- Up to 30 private IP addresses per network interface. To ensure that services are available over the Internet, you can allocate a public IP address, or Elastic IP address (EIP), to each private IP address.

The Barracuda Web Application Firewall is available hourly in the AWS Marketplace or you can bring your own license (BYOL).

Licensing Options

The Barracuda Web Application Firewall AMI is available on Amazon Web Services with the following options:

- Bring Your Own License (BYOL)
- Pay-As-You-Go/Hourly (PAYG)
- Usage Based/Metered

Models and Instance Types

For BYOL, PAYG, and Usage Based/Metered, Barracuda Networks offers four models. The table below lists each model, the corresponding Instance Type to be used in Amazon Web Services, the default CPU and Memory for the instance, and the number of Private IP addresses that can be associated per ENI.

If you want to increase the performance of a license that you have already purchased, you can buy additional cores from Barracuda and reconfigure your VM for a larger instance type.

Barracuda Web Application Firewall Model	Supported Instance Type in Amazon Web Services
Level 1	m3.medium
Level 5	t2.medium
	t2.large
	m4.large
	m5.large
	m5a.large
	c4.large
	c5.large

Level 10	t2.xlarge
	t3.xlarge
	t3a.xlarge
	m4.xlarge
	m5.xlarge
	m5a.xlarge
	c4.xlarge
	c5.xlarge
Level 15	t2.2xlarge
	t3a.2xlarge
	m4.2xlarge
	m5.3xlarge
	m5a.2xlarge
	c4.2xlarge
	c5.2xlarge

Bring Your Own License (BYOL)

With the Bring Your Own License (BYOL) option, you are required to get the Barracuda Web Application Firewall for AWS token, either by:

- Providing the required information for a free evaluation at https://www.barracuda.com/purchase/evaluation OR
- Purchasing online at https://www.barracuda.com/purchase.
  With this license option, there will be no Barracuda Web Application Firewall Software charges, but Amazon Elastic Compute Cloud (Amazon EC2) usage charges on Amazon will apply.

PAYG/Hourly

With the **Pay-As-You-Go (PAYG)/Hourly** licensing option, you complete the evaluation and purchase of the Barracuda Web Application Firewall entirely within the AWS Marketplace. After the Barracuda Web Application Firewall instance is launched from the marketplace, it is licensed provisioned automatically. You are charged hourly (per instance) for both the Barracuda Web Application Firewall Software and Amazon Elastic Compute Cloud (Amazon EC2) usage on Amazon. For pricing information, refer to the AWS Marketplace: Barracuda Web Application Firewall (WAF) – PAYG, Barracuda Web Application Firewall (WAF) – BYOL and Barracuda Web Application Firewall (WAF) – Metered.

Usage Based/Metered

The licensing of the Usage Based/Metered option is same as Hourly/PAYG licensing option i.e. the evaluation and pricing of the Barracuda Web Application Firewall is done entirely within the AWS Marketplace. After the instance is launched, it is licensed automatically.

The Barracuda Web Application Firewall Usage Based instance has two pricing components:

- Charges based on the total bandwidth consumed across all deployed Barracuda Web Application Firewall instances.
- Standard Amazon Elastic Compute Cloud (EC2) charges per instance.

When the Barracuda Web Application Firewall instance is deployed with Usage Based licensing, per instance license charges are not applicable. The pricing is based on the total throughput across all deployed Barracuda Web Application Firewall instances on a specific account (launched with Usage based billing).

Before You Begin

Before you deploy the Barracuda Web Application Firewall on Amazon Web Services, choose the licensing option (Bring Your Own License (BYOL) or Hourly / Metered). Then set up an Amazon Virtual Private Cloud (VPC).

A Virtual Private Cloud (VPC) is an isolated virtual network on Amazon Web Services (AWS) Cloud where you can launch AWS resources, such as Amazon EC2 instances. When creating a VPC, the IP address(es) should be in the form of Classless Inter-Domain Routing (CIDR) block (for example, 10.0.0.0/16). In a VPC, you can select your own IP address range, create subnets, configure routing tables and network gateways.

The VPC cannot be larger than /16.

For more information about CIDR notation, refer to Classless Inter-Domain Routing on Wikipedia. For information about the number of VPCs that you can create, refer to Amazon VPC Limits.

To set up a VPC, complete the following steps. If you have already configured a VPC for the Barracuda Web Application Firewall, you can skip the steps below and continue with "Deploying the Barracuda

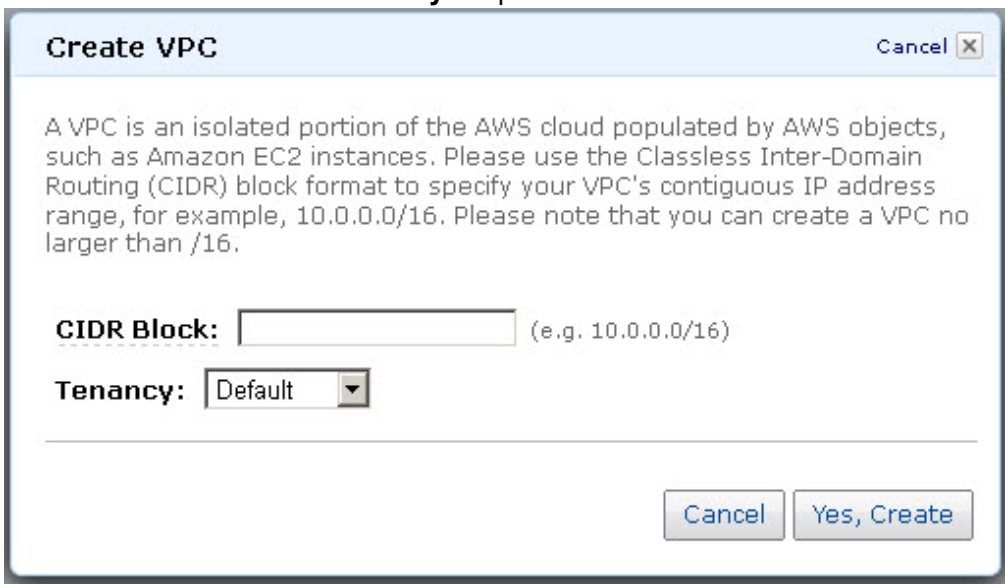
Web Application Firewall on Amazon Web Services".

Step 1 - Create the Amazon VPC Cloud

Perform the steps below to create a VPC:

1. Go to the AWS Management Console.
2. In the **Compute & Networking** section, click **VPC**:

3. From the **VPC Dashboard**, select **Your VPCs** under **VIRTUAL PRIVATE CLOUDS**.
4. Click **Create VPC**.
5. In the **Create VPC** dialog box, do the following:
    1. Enter the IP address in the **CIDR Block** field.
    2. Select *Default* from the **Tenancy** drop-down list:



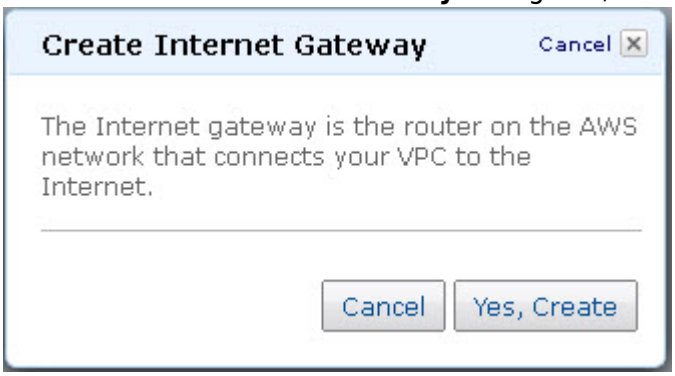
6. Click **Yes, Create**.

Step 2 - Add an Internet Gateway to the VPC

By default, the instances launched on the Virtual Private Cloud (VPC) cannot communicate with the internet until an Internet Gateway is created and attached to the VPC.

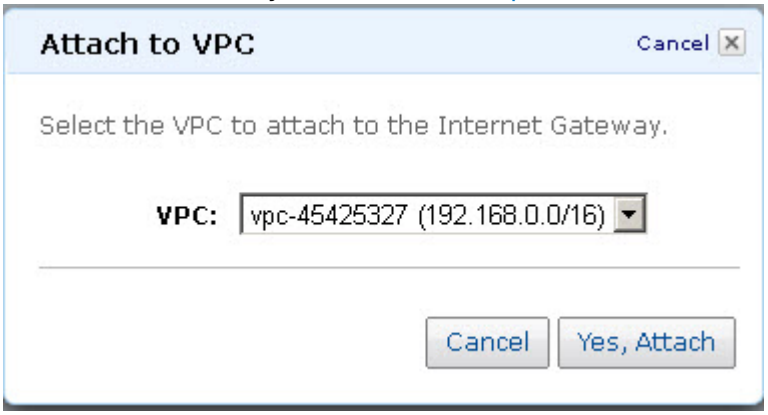
Perform the following steps to add an internet gateway to your VPC:

1. From the **VPC Dashboard**, select **Internet Gateways** under **VIRTUAL PRIVATE CLOUDS**.
2. Click **Create Internet Gateway**.
3. In the **Create Internet Gateway** dialog box, click **Yes, Create**:



4. Select the internet gateway created in the above step, and then click **Attach to VPC**:

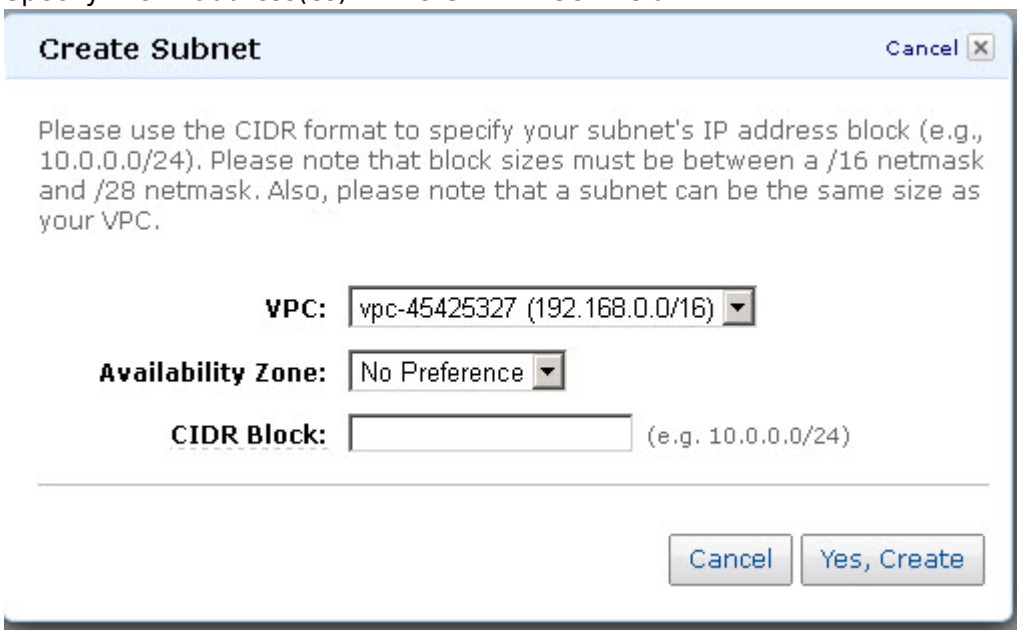
5. Select the VPC that you created in Step 1, and then click **Yes, Attach**:



Step 3 - Add a Subnet to the VPC

Perform the following steps to add a subnet to your VPC:

1. From the **VPC Dashboard**, select **Subnets** under **VIRTUAL PRIVATE CLOUDS**.
2. Click **Create Subnet**.
3. In the **Create Subnet** dialog box, do the following:
    1. Select the created VPC from the **VPC** drop-down list.
    2. Select the availability zone that your VPC resides from the **Availability Zone** drop-down list.
    3. Specify the IP address(es) in the **CIDR Block** field:

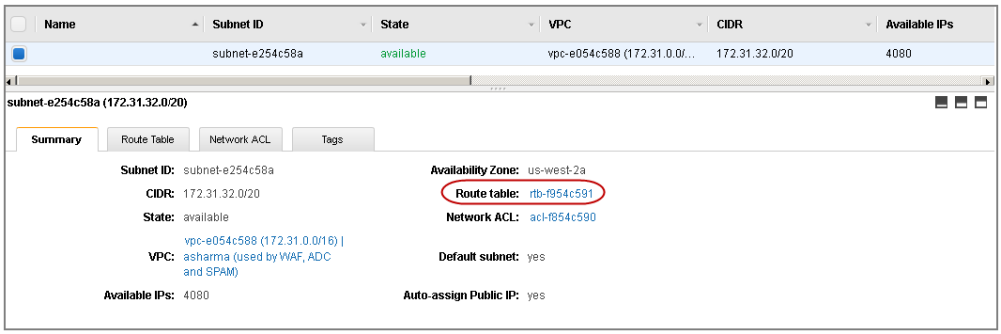


4. Click **Yes, Create**.

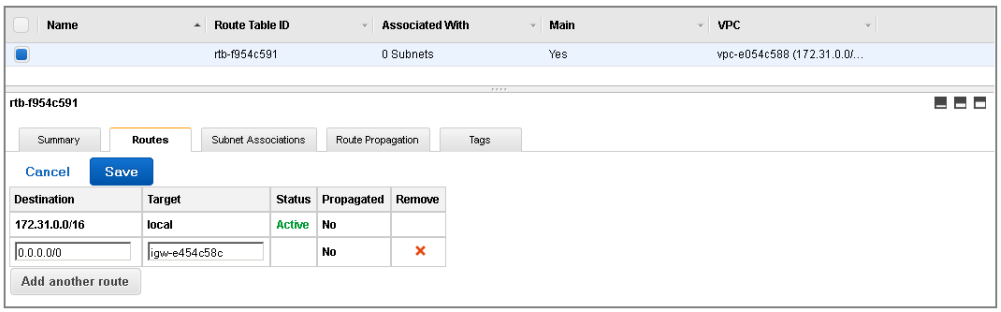
Step 4 - Attach the Internet Gateway to the Route Table

Attach the internet gateway created in **Step 2 - Add an Internet Gateway to the VPC** to the route table by following the steps below:

1. From the **VPC Dashboard**, select **Subnets** under **Virtual Private Cloud**.
2. In the **Subnets** list, select the subnet you created in **Step 3 - Add a Subnet to the VPC** , and note the **Route table** entry:



3. Now, select **Route Tables** under **Virtual Private Cloud**.
4. In the **Route Tables** list, select the route that you noted down in step **2** above.
5. In the **Routes** tab, click **Edit** and specify the following values:
    1. **Destination** – 0.0.0.0/0
    2. **Target** – Should be the internet gateway created in **Step 2 - Add an Internet Gateway to the VPC** :



6. Click **Save**.

Next Step

Now that you have set up a VPC for the Barracuda Web Application Firewall, you can continue with Barracuda Web Application Firewall Deployment and Quick Start Guide for Amazon Web Services . If you encounter network connectivity issues, see Troubleshooting the Barracuda Web Application Firewall on Amazon Web Services.

Figures