

Creating a VPC, Internet Gateway and Subnet

<https://campus.barracuda.com/doc/41099104/>

Follow the steps below to create an Amazon Virtual Private Cloud (VPC), an Internet Gateway and a Subnet on Amazon Web Services (AWS).

Step 1 - Create the Amazon VPC Cloud

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](#).

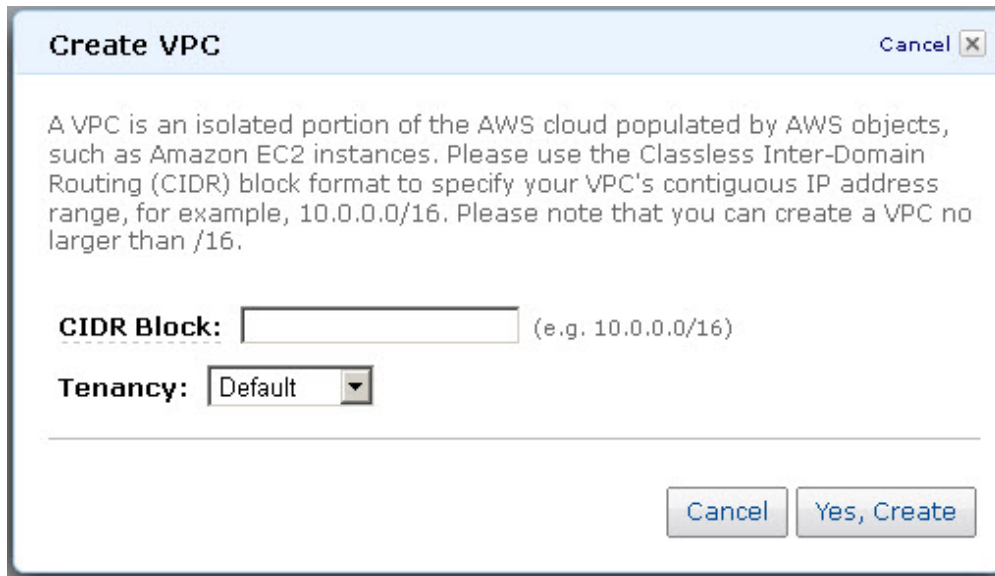
Perform the steps below to create a VPC:

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.



Create VPC Cancel ✕

A VPC is an isolated portion of the AWS cloud populated by AWS objects, such as Amazon EC2 instances. Please use the Classless Inter-Domain Routing (CIDR) block format to specify your VPC's contiguous IP address range, for example, 10.0.0.0/16. Please note that you can create a VPC no larger than /16.

CIDR Block: (e.g. 10.0.0.0/16)

Tenancy: Default ▼

Cancel Yes, Create

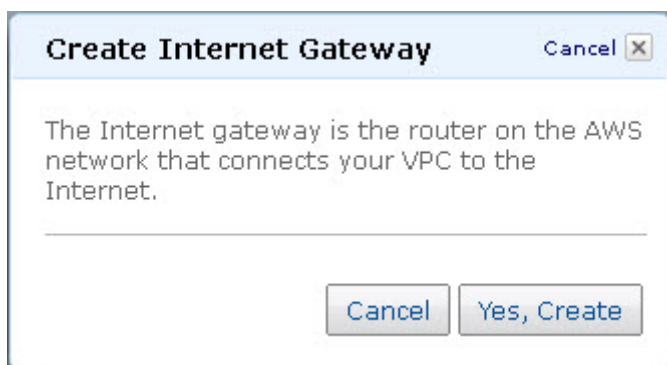
6. Click **Yes, Create**.

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**.



Create Internet Gateway Cancel ✕

The Internet gateway is the router on the AWS network that connects your VPC to the Internet.

Cancel Yes, Create

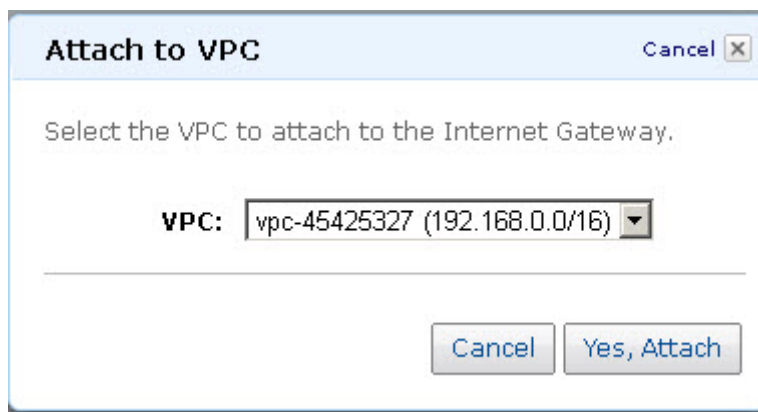
4. Select the internet gateway created in the above step, and then click **Attach to VPC**.



The screenshot shows the 'Internet Gateways' console. At the top, there are four buttons: 'Create Internet Gateway', 'Delete', 'Attach to VPC' (circled in red), and 'Detach from VPC'. Below the buttons is a 'Viewing:' section with a dropdown menu set to 'All Internet Gateways' and an empty search box. Below this is a table with the following data:

	ID	State	VPC
<input checked="" type="checkbox"/>	igw-9a2332f8	● available	

5. Select the VPC that you created in [Step 1](#), and then click **Yes, Attach**.



The screenshot shows the 'Attach to VPC' dialog box. It has a title bar with 'Attach to VPC' and a 'Cancel' button with a close icon. The main text says 'Select the VPC to attach to the Internet Gateway.' Below this is a 'VPC:' label followed by a dropdown menu showing 'vpc-45425327 (192.168.0.0/16)'. At the bottom right, there are two buttons: 'Cancel' and '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.

Create Subnet Cancel

Please use the CIDR format to specify your subnet's IP address block (e.g., 10.0.0.0/24). Please note that block sizes must be between a /16 netmask and /28 netmask. Also, please note that a subnet can be the same size as your VPC.

VPC:

Availability Zone:

CIDR Block: (e.g. 10.0.0.0/24)

4. Click **Yes, Create**.

Continue with the licensing process on [Amazon Web Services](#).

Figures

1. vpc.jpg
2. create_vpc.jpg
3. create_internet_gateway.jpg
4. created_internet_gateway.jpg
5. attach_internet_gateway_to_vpc.jpg
6. create_subnet.jpg

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