

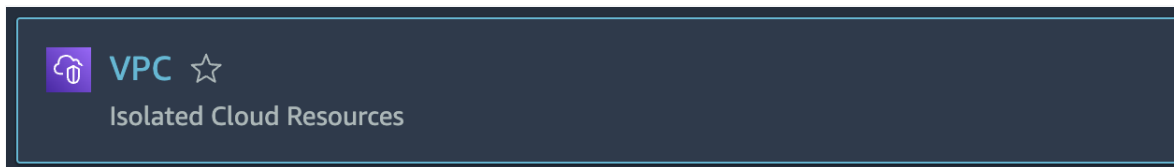
Introduction

Amazon Virtual Private Cloud (Amazon VPC) enables you to launch AWS resources into a virtual network you have defined. This virtual network closely resembles a traditional network that you would operate in your own data center with the benefits of using the scalable infrastructure of AWS. It is logically isolated from other virtual networks in the AWS cloud.

In this lab, you will create a new VPC using the AWS Management Console. Once created, you will create other EC2 and VPC resources mimicking a common two-tiered (front-end and back-end) architecture in the cloud.

Instructions

1. In the AWS Management Console search bar, enter *VPC*, and click the **VPC** result under **Services**:



2. Click **Your VPCs** in the left navigation pane:



The **Your VPCs** page lists all previously created VPCs. All new AWS accounts come with a default, fully-working VPC.

Note: Although all Cloud Academy student accounts originally have a default VPC, some accounts had the default VPC inadvertently removed. A default VPC has the **Default VPC** column set to **Yes**. If you don't see a default VPC in your lab environment, do not worry. You will create a new VPC and use it regardless.

3. Click **Create VPC** to begin creating a new VPC. A **Create VPC** dialog box is opened for you. Specify the following VPC details:

- **Resources to create:** Select **VPC only**
- **Name tag:** Enter *cloudacademy-labs* (This is the name for your VPC. A tag will be created with a key of Name and the value "cloudacademy-labs".)
- **CIDR block:** Enter *10.0.0.0/16* (This is a CIDR block from the private (non-publicly routable) IP address ranges as specified in RFC 1918.)
- **Tenancy:** Select **Default** (Dedicated tenancy ensures your instances run on single-tenant hardware. For the purposes of this Lab, the default is fine though.)

Resources to create [Info](#)
Create only the VPC resource or the VPC and other networking resources.

☒ VPC only ☐ VPC and more

Name tag - optional
Creates a tag with a key of 'Name' and a value that you specify.

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IPv4 CIDR block [Info](#)
☒ IPv4 CIDR manual input
☐ IPAM-allocated IPv4 CIDR block

IPv4 CIDR

10.0.0.0/16

IPv6 CIDR block [Info](#)
☒ No IPv6 CIDR block
☐ IPAM-allocated IPv6 CIDR block
☐ Amazon-provided IPv6 CIDR block
☐ IPv6 CIDR owned by me

Tenancy [Info](#)

Default ▼





Notice the **VPC and more.** option. Choosing this option launches a wizard that makes setting up and configuring a new VPC very simple.

In this lab, you are creating the VPC manually to aid understanding of underlying Amazon VPC concepts.

4. Scroll to the bottom of the page and click **Create VPC**.

Amazon creates the requested VPC and the following linked services:

- **DHCP options set:** Enables DNS for instances that need to communicate over the VPC's Internet gateway
- **Main route table:** Table that contains a set of rules, called *routes*, that are used to determine where network traffic is directed
- **Network ACL:** List of rules to determine whether traffic is allowed in or out of any subnet associated with the network ACL

Details Info			
VPC ID  vpc-029d009a705e38db6	State  Available	DNS hostnames Disabled	DNS resolution Enabled
Tenancy Default	DHCP options set dopt-04e57d96fb42cbd4a	Main route table rtb-0317264a921cd17ab	Main network ACL acl-057ed60c6709adde5
Default VPC No	IPv4 CIDR 10.0.0.0/16	IPv6 pool –	IPv6 CIDR (Network border group) –
Route 53 Resolver DNS Firewall rule groups  Failed to load rule groups	Owner ID  058014206363		

Note: A red warning might pop up saying "Failed to load rule groups," it is okay to ignore that.

No Subnets or Internet Gateways were automatically created with the VPC. You need to add them autonomously.

Now you are ready to create your VPC subnets and customize the routing table.

Summary

In this lab, you created the non-default VPC that will be configured with private and public subnets.

VALIDATION CHECKS

1 Checks

Check again 



Created VPC

Created a non-default VPC

Amazon VPC