

Build a VPC and launch a Web Server

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aws

Services

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VPC > Your VPCs > Create VPC

Create VPC

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances. Mouse over a resource to highlight the related resources.

Introducing the new create VPC experience
We've designed the new create VPC to make it easier to use. The changes include a new visualization of the resources that will be created.
[Let us know what you think.](#)

×

VPC settings

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

☐ VPC only

☒ VPC and more

Name tag auto-generation [Info](#)
Enter a value for the Name tag. This value will be used to auto-generate Name tags for all resources in the VPC.

☒ Auto-generate

lab

IPv4 CIDR block [Info](#)
Determine the starting IP and the size of your VPC using CIDR notation.

10.0.0.0/16

65,536 IPs

Preview


VPC [Show details](#)
Your AWS virtual network

lab-vpc

Configuring VPC as instructed

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New VPC Experience Tell us what you think

VPC dashboard
EC2 Global View  New
Filter by VPC:

Virtual private cloud





- Your VPCs
- Subnets
- Route tables
- Internet gateways
- Egress-only internet gateways
- Carrier gateways
- DHCP option sets
- Elastic IPs
- Managed prefix lists
- Endpoints
- Endpoint services
- NAT gateways

VPC > Your VPCs > vpc-0110d8e55c5e9fc08

vpc-0110d8e55c5e9fc08 / lab-vpc

Actions

Details Info

VPC ID  vpc-0110d8e55c5e9fc08	State  Available	DNS hostnames Enabled	DNS resolution Enabled
Tenancy Default	DHCP option set dopt-0934efe5dd8979c7f	Main route table rtb-02828ab66b6a0654b	Main network ACL acl-025558eedaf1cfa83
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  994171766504		

CIDRs Flow logs Tags

CIDRs Info

Successfully created new vpc

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VPC > Subnets > Create subnet

Create subnet

Info

VPC

VPC ID
Create subnets in this VPC.

Subnet settings
Specify the CIDR blocks and Availability Zone for the subnet.

Select a VPC first to create new subnets.

Creating subnet

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Associated VPC CIDRs

IPv4 CIDRs

10.0.0.0/16

Subnet settings

Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 1

Subnet name

Create a tag with a key of 'Name' and a value that you specify.

lab-subnet-public2

The name can be up to 256 characters long.

Availability Zone

Info

Choose the zone in which your subnet will reside, or let Amazon choose one for you.

US East (N. Virginia) / us-east-1b

IPv4 CIDR block

Info

10.0.2.0/24

Tags - optional

Key

Value - optional

Name

lab-subnet-public2

Remove

Add new tag

You can add 49 more tags.

Remove

Add new subnet

Cancel

Create subnet

Configuring subnet then create it

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Associated VPC CIDRs

IPv4 CIDRs

10.0.0.0/16

Subnet settings

Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 1

Subnet name

Create a tag with a key of 'Name' and a value that you specify.

lab-subnet-private2

The name can be up to 256 characters long.

Availability Zone [Info](#)

Choose the zone in which your subnet will reside, or let Amazon choose one for you.

US East (N. Virginia) / us-east-1b

IPv4 CIDR block [Info](#)

10.0.3.0/24

Tags - optional

Key

Value - optional

Q Name

Q lab-subnet-private2

Remove

Add new tag

You can add 49 more tags.

Remove

Add new subnet

Cancel

Create subnet

Configuring and creating second private subnet

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Route tables (1/6) Info

Filter route tables

	Name	Route table ID	Explicit subnet associat...	Edge s
<input type="checkbox"/>	-	rtb-02828ab66b6a0654b	-	-
<input checked="" type="checkbox"/>	lab-rtb-private1-us...	rtb-0cf68bacecf9a08a6	subnet-02e10e5b2a2df...	-
<input type="checkbox"/>	-	rtb-063b99271dff69e6a	-	-
<input type="checkbox"/>	-	rtb-03a429df0165fdf65	-	-
<input type="checkbox"/>	lab-rtb-public	rtb-0a27ce62b82b3c516	subnet-0bf5939330311...	-
<input type="checkbox"/>	Work Public Route ...	rtb-0d6992715fb73f425	subnet-07a07a2790dac...	-

Tags

Routes (2)

Filter routes Both

Destination	Target	Status	Propagated
0.0.0.0/0	nat-0802b6a3d7d73abe4	Active	No
10.0.0.0/16	local	Active	No

Configuring route for private subnet

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VPC > Route tables > rtb-0cf68bacecf9a08a6 > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/4)

Filter subnet associations

	Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route
<input checked="" type="checkbox"/>	lab-subnet-private1-us-east-1a	subnet-02e10e5b2a2df201b	10.0.1.0/24	-	rtb-priv
<input type="checkbox"/>	lab-subnet-public1-us-east-1a	subnet-0bf5939330311ed8d	10.0.0.0/24	-	rtb-put
<input checked="" type="checkbox"/>	lab-subnet-private2	subnet-0cb3abac840d7645a	10.0.3.0/24	-	Ma
<input type="checkbox"/>	lab-subnet-public2	subnet-0d58877e3e10cdbc1	10.0.2.0/24	-	Ma

Selected subnets

subnet-0cb3abac840d7645a / lab-subnet-private2 X subnet-02e10e5b2a2df201b / lab-subnet-private1-us-east-1a X

Cancel Save associations

Associate route table with private subnet 2

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VPC > Route tables > rtb-0a27ce62b82b3c516 > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/4)

Filter subnet associations

	Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route
<input type="checkbox"/>	lab-subnet-private1-us-east-1a	subnet-02e10e5b2a2df201b	10.0.1.0/24	-	rtb-priv
<input checked="" type="checkbox"/>	lab-subnet-public1-us-east-1a	subnet-0bf5939330311ed8d	10.0.0.0/24	-	rtb-put
<input type="checkbox"/>	lab-subnet-private2	subnet-0cb3abac840d7645a	10.0.3.0/24	-	rtb-priv
<input checked="" type="checkbox"/>	lab-subnet-public2	subnet-0d58877e3e10cdbc1	10.0.2.0/24	-	Ma

Selected subnets

subnet-0d58877e3e10cdbc1 / lab-subnet-public2 X subnet-0bf5939330311ed8d / lab-subnet-public1-us-east-1a X

Cancel Save associations

Associate route table with public subnet 2

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✓ You have successfully updated subnet associations for rtb-0a27ce62b82b3c516 / lab-rtb-public. ✕

Route tables (6) Info

↻

Actions ▼

Create route table

🔍 Filter route tables

< 1 >

⚙

<input type="checkbox"/>	Name ▼	Route table ID ▼	Explicit subnet associat...	Edge a
<input type="checkbox"/>	-	rtb-02828ab66b6a0654b	-	-
<input type="checkbox"/>	lab-rtb-private1-us...	rtb-0cf68bacecf9a08a6	2 subnets	-
<input type="checkbox"/>	-	rtb-063b99271dff69e6a	-	-
<input type="checkbox"/>	-	rtb-03a429df0165fdf65	-	-
<input type="checkbox"/>	lab-rtb-public	rtb-0a27ce62b82b3c516	2 subnets	-
<input type="checkbox"/>	Work Public Route ...	rtb-0d6992715fb73f425	subnet-07a07a2790dac...	-

Select a route table

Successfully updated all subnet associations.

VPC > Security Groups > Create security group

Create security group [Info](#)

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below.

Basic details

Security group name [Info](#)

Web Security Group

Name cannot be edited after creation.

Description [Info](#)

Enable HTTP access

VPC [Info](#)

Q vpc-0110d8e55c5e9fc08 X

Inbound rules [Info](#)

Inbound rule 1

Delete

Type [Info](#)

HTTP ▼

Protocol [Info](#)

TCP

Port range [Info](#)

80

Source type [Info](#)

Anywhere-IPv4 ▼

Source [Info](#)

Q

0.0.0.0/0 X




Description - optional [Info](#)

Permit web requests

Add rule

Configuring VPC security group

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nce X

VPC > ... > sg-0023209acbb24d954 - Web Security Group

Security group (sg-0023209acbb24d954 | Web Security Group) was created successfully

Details






New

id

sg-0023209acbb24d954 - Web Security Group

Actions

Details

Security group name	Security group ID
 Web Security Group	 sg-0023209acbb24d954
Description	VPC ID
 Enable HTTP access	 vpc-0110d8e55c5e9fc08
Owner	Inbound rules count
 994171766504	1 Permission entry
Outbound rules count	
1 Permission entry	

Successfully created security group

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```
# Turn on web server
chkconfig httpd on
service httpd start
```

☐ User data has already been base64 encoded

▼ Summary

Number of instances [Info](#)

Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...[read more](#)
ami-05fa00d4c63e32376

Virtual server type (instance type)
t2.micro

Firewall (security group)
Web Security Group

Storage (volumes)
1 volume(s) - 8 GiB

❗

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

×

Cancel

Launch Instance

Configure an instance and launch it as instructed.

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Instances (1/2) Info

Connect

Instance state

Actions

Launch instances

Q Search

< 1 >

	Name	Instance ID	Instance state	Instance type	Status checks
<input checked="" type="checkbox"/>	Web Server 1	i-08d2eaddcdc8d2364	Running	t2.micro	2/2 checks passed
<input type="checkbox"/>	Bastion Host	i-00da1a8f50987b595	Running	t2.micro	2/2 checks passed

Instance: i-08d2eaddcdc8d2364 (Web Server 1)

Details

Security

Networking

Storage

Status checks

Monitoring

Tags

▼ Instance summary Info

Instance ID i-08d2eaddcdc8d2364 (Web Server 1)	Public IPv4 address 44.203.214.221 open address	Private IPv4 addresses 10.0.2.246
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-44-203-214-221.compute-1.amazonaws.com open address

Last step, lab completed.