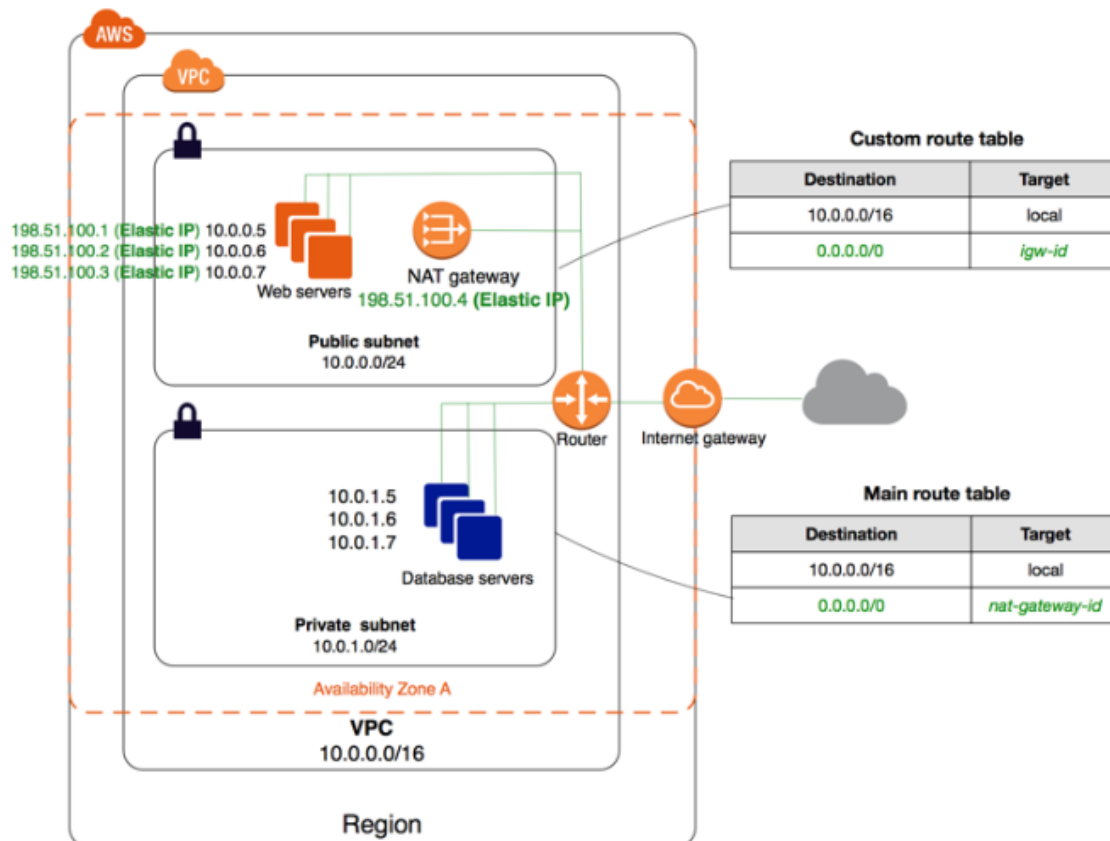


CREATING A NON-DEFAULT VPC USING VPC WIZARD

Ref: https://docs.aws.amazon.com/vpc/latest/userguide/VPC_Scenarios.html



aws Services Resource Groups

chaitynagaajula12 N. Virginia Support

VPC Dashboard

Filter by VPC: Select a VPC

Virtual Private Cloud

Your VPCs

Subnets

Route Tables

Internet Gateways

Egress Only Internet Gateways

DHCP Options Sets

Elastic IPs

Endpoints

Launch VPC Wizard Launch EC2 Instances

Note: Your Instances will launch in the US East (N. Virginia) region.

Resources by Region Refresh Resources

You are using the following Amazon VPC resources

Resource Type	Count
VPCs	2
Subnets	8
Route Tables	3
Internet Gateways	2
NAT Gateways	0
VPC Peering Connections	0
Network ACLs	2
Security Groups	28

Service Health

Current Status	Details
Amazon EC2 - US East (N. Virginia)	Service is operating normally

View complete service health details

Account Attributes

Resource ID length management

Additional Information

VPC Documentation

All VPC Resources

Forums

Report an Issue

Step 1: Select a VPC Configuration

VPC with a Single Public Subnet

VPC with Public and Private Subnets

VPC with Public and Private Subnets and Hardware VPN Access

VPC with a Private Subnet Only and Hardware VPN Access

In addition to containing a public subnet, this configuration adds a private subnet whose instances are not addressable from the Internet. Instances in the private subnet can establish outbound connections to the Internet via the public subnet using Network Address Translation (NAT).

Creates:

A /16 network with two /24 subnets. Public subnet instances use Elastic IPs to access the Internet. Private subnet instances access the Internet via Network Address Translation (NAT). (Hourly charges for NAT devices apply.)

Select

```
graph TD
    Internet[Internet: S3, DynamoDB, SNS, SQS, etc.] --- PublicSubnet[Public Subnet]
    PublicSubnet --- NAT[NAT]
    NAT --- PrivateSubnet[Private Subnet]
```

Step 2: VPC with Public and Private Subnets

IPv4 CIDR block:* 10.0.0.0/16 (65531 IP addresses available)

IPv6 CIDR block: ☒ No IPv6 CIDR Block ☐ Amazon provided IPv6 CIDR block

VPC name: Test VPC

Public subnet's IPv4 CIDR:* 10.0.0.0/24 (251 IP addresses available)

Availability Zone:* us-east-1a

Public subnet name: Test Public Subnet

Private subnet's IPv4 CIDR:* 10.0.1.0/24 (251 IP addresses available)

Availability Zone:* us-east-1b

Private subnet name: Test Private Subnet

You can add more subnets after AWS creates the VPC.

Specify the details of your NAT gateway (NAT gateway rates apply).

Elastic IP Allocation ID:*

Service endpoints

Allocation ID

Elastic IP Address

eipalloc-01c844ff2c4e3d7a0

34.194.25.23

Enable DNS hostnames:* ☒ Yes ☐ No

Hardware tenancy:* Default

Cancel and Exit

Back

Create VPC

aws

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Support

Availability Zone:*
us-east-1a

Public subnet name:
Test Public Subnet

Private subnet's IPv4 CIDR:*
10.0.1.0/24 (251 IP addresses available)

Availability Zone:*
us-east-1b

Private subnet name:
Test Private Subnet

You can add more subnets after AWS creates the VPC.

Specify the details of your NAT gateway (NAT gateway rates apply).
Elastic IP Allocation ID:*
eipalloc-01c844ff2c4e3d7a0

Service endpoints
Add Endpoint

Enable DNS hostnames:*
☒ Yes ☐ No

Hardware tenancy:*
Default

Cancel and Exit

Back

Create VPC

13%

Creating Private Subnet...

aws

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N. Virginia

Support

VPC Dashboard

Filter by VPC:
Select a VPC

Virtual Private Cloud

Your VPCs

Subnets

VPC Successfully Created

Your VPC has been successfully created.

You can launch instances into the subnets of your VPC. For more information, see [Launching an Instance into Your Subnet](#).

OK

aws

Services

Resource Groups

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N. Virginia

Support

VPC Dashboard

Filter by VPC:
Select a VPC

Virtual Private Cloud

Your VPCs

Subnets

Create VPC

Actions

Filter by tags and attributes or search by keyword

	Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	DHCP options set
<input type="checkbox"/>	Test VPC	vpc-0e39a6cf2e3bae041	available	10.0.0.0/16	-	dopt-134f6568
<input type="checkbox"/>		vpc-288b0252	available	172.31.0.0/16	-	dopt-134f6568

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N. Virginia

Support

VPC Dashboard

Filter by VPC:
Select a VPC

Virtual Private Cloud

Your VPCs

Subnets

Create subnet

Actions

Filter by tags and attributes or search by keyword

	Name	Subnet ID	State	VPC	IPv4 CIDR	Availa
<input type="checkbox"/>	Test Private Subnet	subnet-0793aebc38ce10694	available	vpc-0e39a6cf2e3bae041 Test VPC	10.0.1.0/24	251
<input type="checkbox"/>	Test Public Subnet	subnet-08e51378cd34f04a9	available	vpc-0e39a6cf2e3bae041 Test VPC	10.0.0.0/24	250
<input type="checkbox"/>		subnet-0993ed55	available	vpc-288b0252	172.31.32.0/20	4091
<input type="checkbox"/>		subnet-0889f126	available	vpc-288b0252	172.31.80.0/20	4090

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Support

VPC Dashboard

Filter by VPC:
Select a VPC

Virtual Private Cloud

Your VPCs

Subnets

Route Tables

Create route table

Actions

Filter by tags and attributes or search by keyword

1 to 3 of 3

	Name	Route Table ID	Explicitly Associated with	Main	VPC ID	Owner
<input type="checkbox"/>		rtb-036e334326281701c	subnet-08e51378cd34f04a9	No	vpc-0e39a6cf2e3bae041 Test VPC	413063352953
<input type="checkbox"/>		rtb-09eb5e8fd7470bb54	-	Yes	vpc-0e39a6cf2e3bae041 Test VPC	413063352953
<input type="checkbox"/>		rtb-f0687c8f	-	Yes	vpc-288b0252	413063352953

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VPC Dashboard

Filter by VPC:
Select a VPC

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Endpoints

Endpoint Services

NAT Gateways

Create route table

Actions

Filter by tags and attributes or search by keyword

1 to 3 of 3

	Name	Route Table ID	Explicitly Associated with	Main	VPC ID
<input type="checkbox"/>		rtb-036e334326281701c	subnet-08e51378cd34f04a9	No	vpc-0e39a6cf2e3bae041 Test VPC
<input checked="" type="checkbox"/>		rtb-09eb5e8fd7470bb54	-	Yes	vpc-0e39a6cf2e3bae041 Test VPC
<input type="checkbox"/>		rtb-f0687c8f	-	Yes	vpc-288b0252

Route Table: rtb-09eb5e8fd7470bb54

Summary

Routes

Subnet Associations

Route Propagation

Tags

Edit subnet associations

None found

Subnet ID	IPv4 CIDR	IPv6 CIDR
-----------	-----------	-----------

You do not have any subnet associations.

[Route Tables](#) > Edit subnet associations

Edit subnet associations

Route table rtb-09eb5e8fd7470bb54

Associated subnets subnet-0793aebc38ce10694

Filter by attributes or search by keyword1 to 2 of 2

Subnet ID	IPv4 CIDR	IPv6 CIDR	Current Route Table
subnet-0793aebc38ce10694 Test Private Subnet	10.0.1.0/24	-	Main
subnet-08e51378cd34f04a9 Test Public Subnet	10.0.0.0/24	-	rtb-036e334326281701c

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Support

VPC Dashboard

Filter by VPC:

Select a VPC

Virtual Private Cloud

Your VPCs

Subnets

Route Tables

Internet Gateways

Create internet gateway

Actions

Filter by tags and attributes or search by keyword

1 to 2 of 2

	Name	ID	State	VPC	Owner
	igw-01e2fa12ed5a...	igw-01e2fa12ed5a...	attached	vpc-0e39a6cf2e3bae041 Test VPC	413063352953
	igw-3dae5246	igw-3dae5246	attached	vpc-288b0252	413063352953

VPC Dashboard

Filter by VPC:

Select a VPC

Virtual Private Cloud

Your VPCs

Subnets

Route Tables

Internet Gateways

Egress Only Internet Gateways

DHCP Options Sets

Elastic IPs

Endpoints

Endpoint Services

NAT Gateways

Create NAT Gateway

Actions

Filter by tags and attributes or search by keyword

1 to 1 of 1

	Name	NAT Gateway ID	Status	Status Message	Elastic IP Address	Private IP Address	Network Interface
		nat-0b6f619b3115294d8	available	-	34.194.25.23	10.0.0.150	eni-0b4d9aad23a...

NAT Gateway: nat-0b6f619b3115294d8

Details

Monitoring

Tags

NAT Gateway ID

Status

Status Message

Private IP Address

VPC

Created

nat-0b6f619b3115294d8

available

-

10.0.0.150

vpc-0e39a6cf2e3bae041 | Test VPC

April 28, 2019 at 4:54:08 PM UTC+5:30

Status

Elastic IP Address

Network Interface ID

Subnet

Deleted

available

34.194.25.23

eni-0b4d9aad23ac647af

subnet-08e51378cd34f04a9 | Test Public Subnet

-

aws

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EC2 Dashboard

Events

Tags

Reports

Limits

INSTANCES

Instances

Launch Templates

Spot Requests

Reserved Instances

Dedicated Hosts

Scheduled Instances

Capacity Reservations

IMAGES

AMIs

Resources

You are using the following Amazon EC2 resources in the US East (N. Virginia) region:

0 Running Instances

0 Dedicated Hosts

9 Volumes

4 Key Pairs

1 Placement Groups

1 Elastic IPs

1 Snapshots

0 Load Balancers

27 Security Groups

Learn more about the latest in AWS Compute from AWS re:Invent by viewing the EC2 Videos.

Create Instance

To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.

Launch Instance

Account Attributes

Supported Platforms

VPC

Default VPC

vpc-288b0252

Resource ID length management

Console experiments

Additional Information

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N. Virginia

Support

1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Add Tags

6. Configure Security Group

7. Review

Step 1: Choose an Amazon Machine Image (AMI)

Cancel and Exit

Microsoft Windows Server 1809 with Containers - ami-0dcb72de/8baac0d

Windows

Free tier eligible

Microsoft Windows Server 1809 Semi-Annual Channel release with Containers [English]

Root device type: ebs

Virtualization type: hvm

ENA Enabled: Yes

Select

64-bit (x86)

Microsoft Windows Server 2016 Base - ami-0a125a00b5b736e77

Windows

Free tier eligible

Microsoft Windows 2016 Datacenter edition. [English]

Root device type: ebs

Virtualization type: hvm

ENA Enabled: Yes

Select

64-bit (x86)

Microsoft Windows Server 2016 Base with Containers - ami-014a6611ca6bdf7e7

Windows

Free tier eligible

Microsoft Windows 2016 Datacenter edition with Containers. [English]

Root device type: ebs

Virtualization type: hvm

ENA Enabled: Yes

Select

64-bit (x86)

aws

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N. Virginia

Support

1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Add Tags

6. Configure Security Group

7. Review

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by:

All instance types

Current generation

Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	General purpose	t2.micro	1	1	EBS only	-	Low to Moderate	Yes

1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Add Tags

6. Configure Security Group

7. Review

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management instance, and more.

Number of instances

1

Launch into Auto Scaling Group

Purchasing option

☐ Request Spot instances

Network

vpc-0e39a6cf2e3bae041 | Test VPC

Create new VPC

Subnet

subnet-08e51378cd34f04a9 | Test Public Subnet | us

Create new subnet

250 IP Addresses available

Auto-assign Public IP

Enable

Placement group

☐ Add instance to placement group

Capacity Reservation

Open

Create new Capacity Reservation

Domain join directory

No directory

Create new directory

aws

Services

Resource Groups

chaitanyagaajula12

N. Virginia

Support

1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Add Tags

6. Configure Security Group

7. Review

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encrypted
Root	/dev/sda1	snap-05a2f7210ba446ff2	30	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

Add New Volume

Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver. A copy of a tag can be applied to volumes, instances or both. Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key (127 characters maximum)	Value (255 characters maximum)	Instances	Volumes
Name	Test Web Server	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Add another tag (Up to 50 tags maximum)

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group:

Create a new security group

Select an existing security group

Security group name:

Linux Security Group

Description:

Linux Security Group

Type	Protocol	Port Range	Source	Description
RDP	TCP	3389	Anywhere 0.0.0.0/0, ::/0	e.g. SSH for Admin Desktop
All ICMP - IPv4	ICMP	0 - 65535	Anywhere 0.0.0.0/0, ::/0	e.g. SSH for Admin Desktop

Add Rule

Step 7: Review Instance Launch

Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.

Improve your instances' security. Your security group, Linux Security Group, is open to the world.

Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only. You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. [Edit security groups](#)

AMI Details

Microsoft Windows Server 2016 Base - ami-0a125a00b5b736e77

Free tier eligible

Microsoft Windows 2016 Datacenter edition. [English]

Root Device Type: ebs Virtualization type: hvm

If you plan to use this AMI for an application that benefits from Microsoft License Mobility, fill out the [License Mobility Form](#). Don't show me this again

Edit AMI

Instance Type

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

Cancel

Previous

Launch

Select an existing key pair or create a new key pair



A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Create a new key pair ▼

Key pair name
northvigtestkey

Download Key Pair

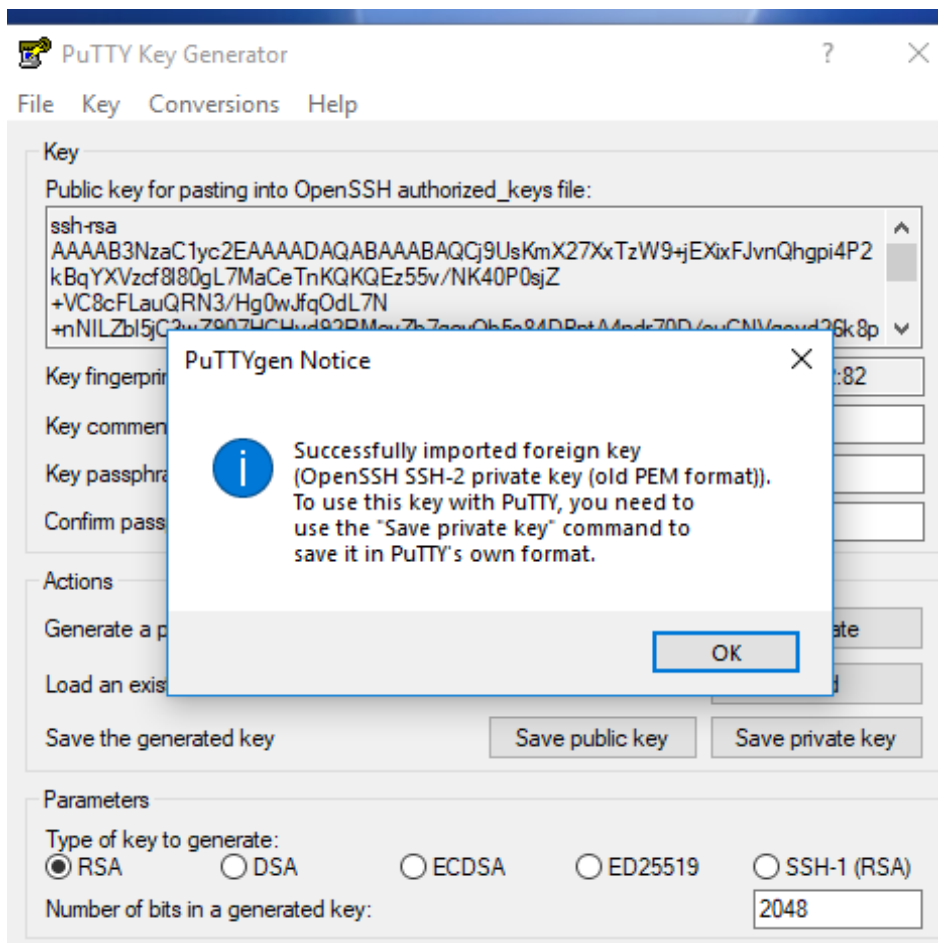
... You have to download the **private key file** (*.pem file) before you can continue. **Store it in a secure and accessible location.** You will not be able to download the file again after it's created.

[Cancel](#)[Launch Instances](#)

The screenshot displays the AWS Management Console interface. On the left, the navigation menu includes 'EC2 Dashboard', 'Events', 'Tags', 'Reports', 'Limits', and a section for 'INSTANCES' with sub-links like 'Instances', 'Launch Templates', 'Spot Requests', 'Reserved Instances', 'Dedicated Hosts', 'Scheduled Instances', and 'Capacity Reservations'. The main content area shows the 'Launch Instance' button and a table of instances. The table has columns for Name, Instance ID, Instance Type, Availability Zone, Instance State, Status Checks, Alarm Status, and Public DNS. One instance, 'Test Web Server' (ID: i-0421e062d5b63f671), is listed as 'running'. Below the table, the 'Description' tab is selected for the chosen instance, displaying its ID, state (running), type (t2.micro), and public DNS (ec2-54-80-203-182.compute-1.amazonaws.com).

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS
Test Web Server	i-0421e062d5b63f671	t2.micro	us-east-1a	running	Initializing	None	ec2-54-80-203-182.compute-1.amazonaws.com

Instance: i-0421e062d5b63f671 (Test Web Server)		Public DNS: ec2-54-80-203-182.compute-1.amazonaws.com	
Instance ID	i-0421e062d5b63f671	Public DNS (IPv4)	ec2-54-80-203-182.compute-1.amazonaws.com
Instance state	running	IPv4 Public IP	54.80.203.182
Instance type	t2.micro	IPv6 IPs	-





PuTTY Key Generator



File Key Conversions Help

Key

Public key for pasting into OpenSSH authorized_keys file:

```
ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQACj9UsKmX27XxTzW9+jEXixFJvnQhgpi4P2
kBqYXVzcf8l80gL7MaCeTnKQKQEZ55v/NK40P0sjZ
+VC8cFLauQRN3/Hg0wJfqOdL7N
+nNILZbl5jC3wZ907HCHvd92RMcyZb7qcyOb5s84DPptA4ndr70D/ouCNVqovd26k8p
```

Key fingerprint:

Key comment:

Key passphrase:

Confirm passphrase:

Actions

Generate a public key

Load an existing private key file

Save the generated key

Yes

No

Generate

Load

Save public key

Save private key

Parameters

Type of key to generate:

☒ RSA

☐ DSA

☐ ECDSA

☐ ED25519

☐ SSH-1 (RSA)

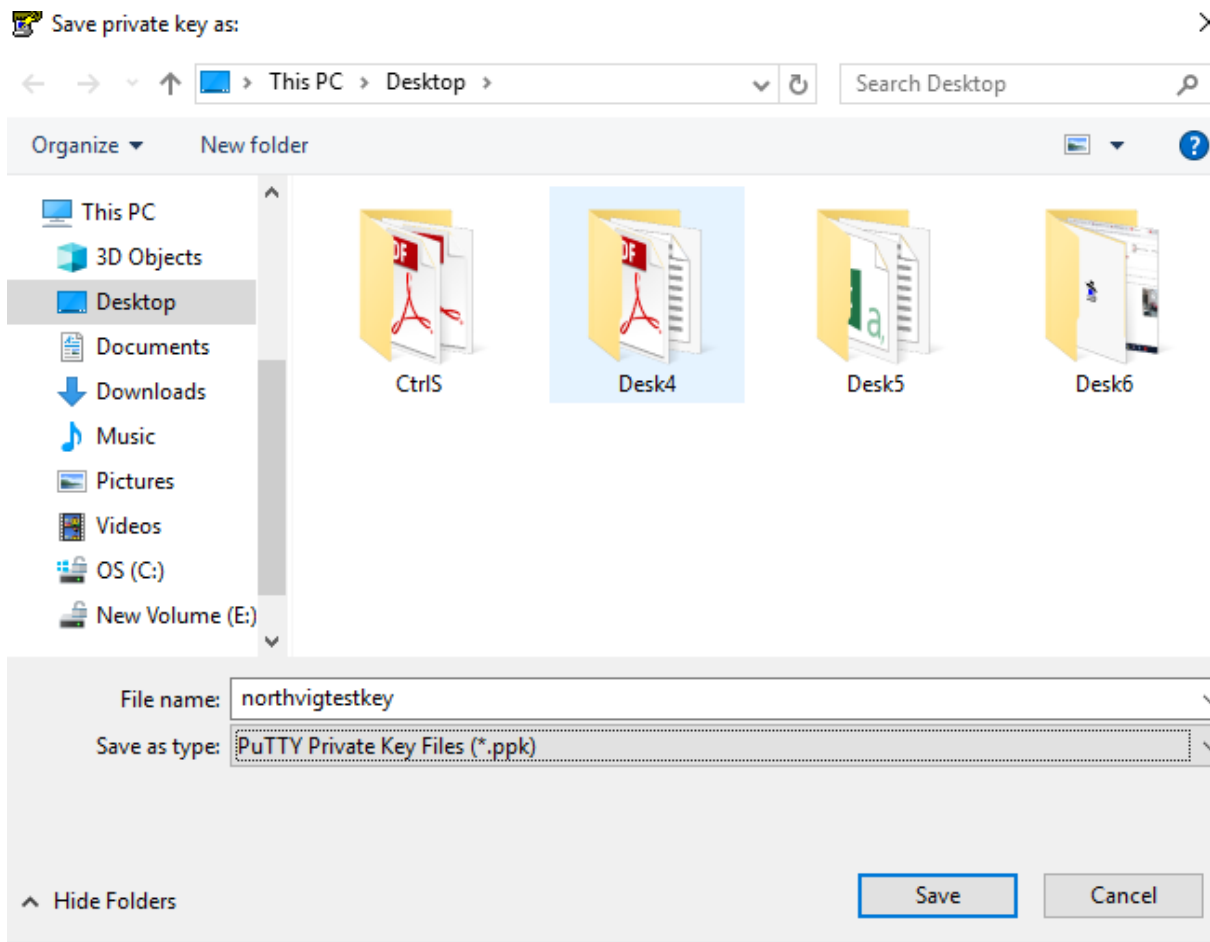
Number of bits in a generated key:

2048

PuTTYgen Warning



Are you sure you want to save this key
without a passphrase to protect it?



Connect To Your Instance

You can connect to your Windows instance using a remote desktop client of your choice, and by downloading and running the RDP shortcut file below:

[Download Remote Desktop File](#)

When prompted, connect to your instance using the following details:

Public DNS ec2-54-80-203-182.compute-1.amazonaws.com

User name Administrator

Password [Get Password](#)

If you've joined your instance to a directory, you can use your directory credentials to connect to your instance.

If you need any assistance connecting to your instance, please see our [connection documentation](#).

[Close](#)

Connect To Your Instance > Get Password



The following Key Pair was associated with this instance when it was created.

Key Name northvigtestkey.pem

In order to retrieve your password you will need to specify the path of this Key Pair on your local machine:

Key Pair Path northvigtestkey.pem.txt

Or you can copy and paste the contents of the Key Pair below:

```
-----BEGIN RSA PRIVATE KEY-----
MIIEpAIBAAKCAQEAo/VLCpl9u18U81vfoxF4sRSb50IYKYuD9pAamF1c3H/JfNIC+zGgnk5ykCkB
M+eb/zSuND9LI2fIQvHBS2rkETd/x4NMCX6jnS+zfpzSC2W5eYwt8GfdOxwh73fdkTHMmW+6nMjm
+bPOAz6bQOJ3a+9A/6LgjVaqL3dupPKcE+mpmGd4K1xgqx1fFarxWOahlixDp0rnleGY86idtvoY
UyrE1MdWGSw4/CeKviTeehM21s6XhoK+MRnM39TQx/PlzCKKnkA+jKfuvZIDQMdyQhMD33S2nxgE
J6d6aPh524caQv+vpGnUv2sWqKhpmVnuttEYhbVWYWFsKSz3TbAVwIDAQABAoIBAOCtiaXnuQ4z
```

When prompted, connect to your instance using the following details:

Public DNS ec2-54-80-203-182.compute-1.amazonaws.com

User name Administrator

Password pD&-Bl-So7cI=ILcowBvUx9.(xZkeuC7

Windows Security



Enter your credentials

These credentials will be used to connect to
ec2-54-80-203-182.compute-1.amazonaws.com.

Administrator

.....

DESKTOP-IIFHTHN\Administrator

☐ Remember me

[More choices](#)

OK

Cancel



- Create Windows 2016 EC2 instance in Private Subnet in the same VPC
- Generate Password and note down the Private ip of the EC2 instance
- From Frontend Webserver perform RDP by typing mstsc under run and type the private ip of the instance created in the private subnet
- Enter the credentials and you would be logged into the Private EC2 instance
- Check if you are able to access internet from the instance