EC2-Elastic Compute Cloud

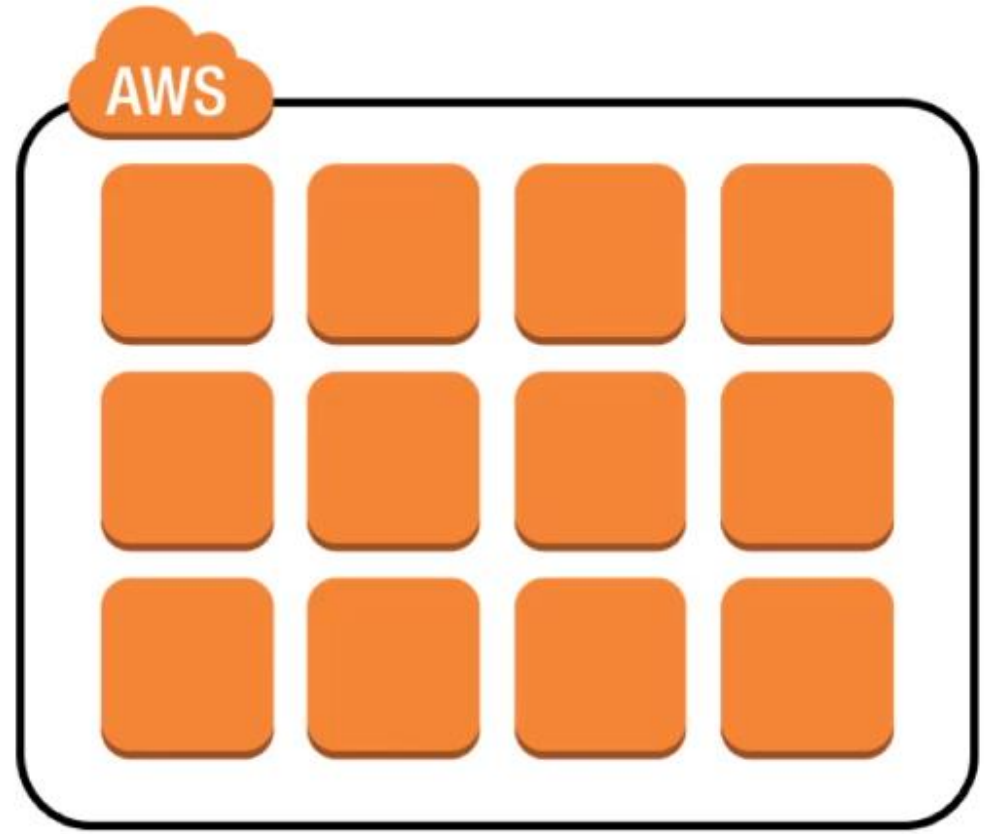
ELASTIC COMPUTE CLOUD

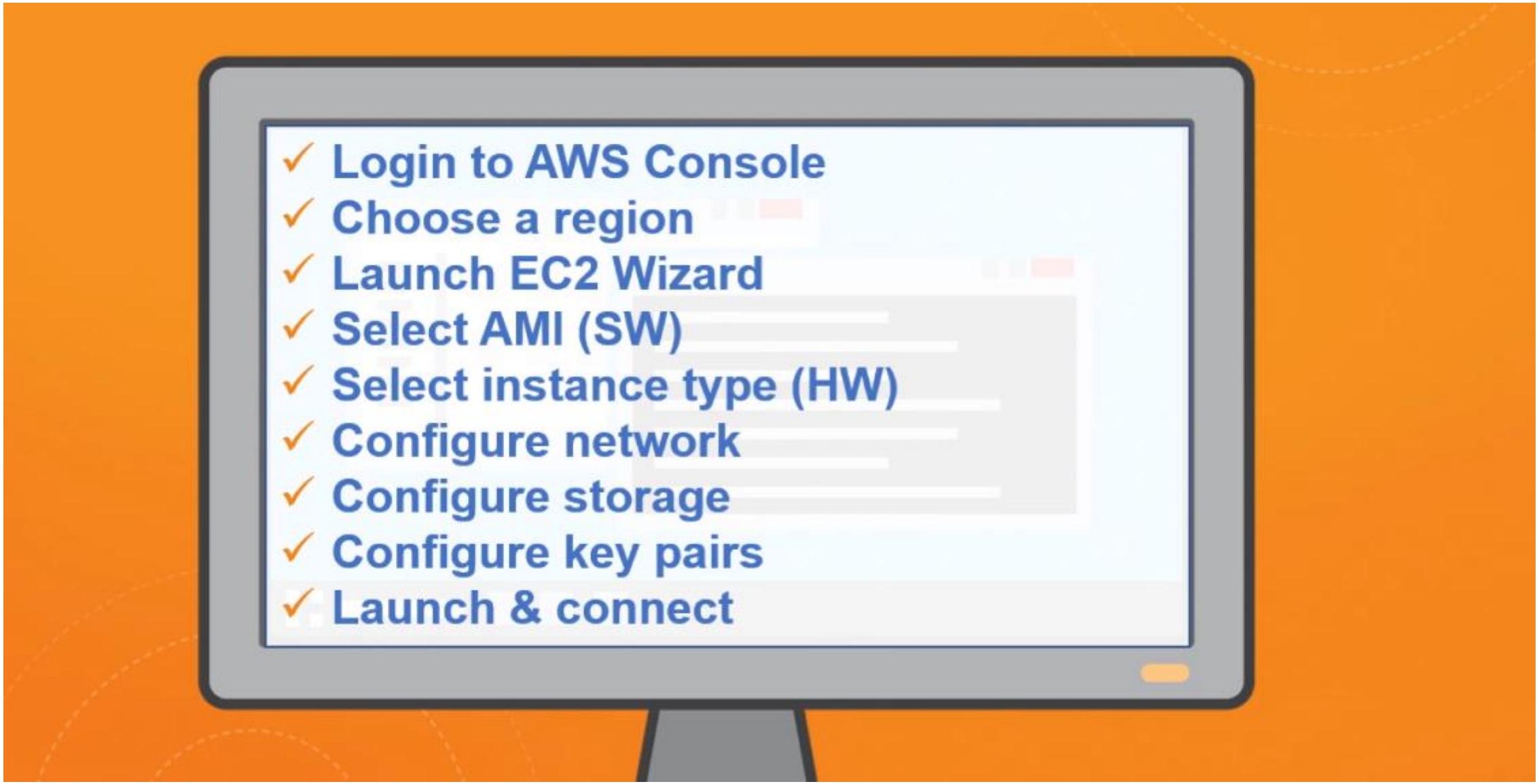
- ✓ Application Server
- ✓ Web Server
- ✓ Database Server
- ✓ Game Server
- ✓ Mail Server
- ✓ Media Server
- ✓ Catalog Server
- ✓ File Server
- ✓ Computing Server
- ✓ Proxy Server
- ✓ Etc.

AMAZON EC2 INSTANCES

- ✓ Pay as you go
- ✓ Broad selection of HW/SW
- ✓ Global hosting
- ✓ Much much more

aws.amazon.com/ec2




✓ Login to AWS Console
✓ Choose a region
✓ Launch EC2 Wizard
✓ Select AMI (SW)
✓ Select instance type (HW)
✓ Configure network
✓ Configure storage
✓ Configure key pairs
✓ Launch & connect

What is E C 2

- Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides resizable compute capacity in the cloud. It is designed to make web-scale computing easier for developers.
- Can spin up VMs on cloud within mins per your requirement.
- Revolutionary/Game changing paradigm that's different and innovative from conventional ways(Machine procurement).

Advantages

- Instant provisioning
- Auto scaling
- ELB
- Low cost
- Resizable(up and down)
- AZ
- CloudWatch monitoring, etc

Pricing Model Of E C 2

- On demand-Pay/Hour model.
- Reserved- 1/3 yr contract for a fixed capacity of EC2 instances. Low cost per hour charges than on demand.
- Spot- bid the price for instance-for requirements where start and end date is not a concern.
- Dedicated-Physical EC2 servers available as pay/hour fashion. (use existing server bound licenses).

E B S

- Elastic Block storage lets you to create storage volumes and attach it with ec2 instance.
- Block based
- Can install software's or used for storage.
- EBS volumes are placed on specific AZ and replicated automatically to withstand single point of failure.
- Cannot attach 1 EBS volume to multiple EC2 instances-For this EFS can be used.

E B S Volume Types

- General Purpose SSD(GP2)-Upto 10,000 IOPS
- Provisioned IOPS SSD(IO1)-More than 10,000 IOPS
- Throughput optimized HDD-magnetic volume(ST1)-Frequent access of data
- Cold HDD-Magnetic Volume(SC1)-IA data
- Magnetic(Standard)-Lowest cost,IA bootable storage.

EC2 Management Console

https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#Home: 67%

aws Services Resource Groups Laxmanshriram N. Virginia Support

- EC2 Dashboard
- Events
- Tags
- Reports
- Limits

INSTANCES
- Instances
- Launch Templates
- Spot Requests
- Reserved Instances
- Dedicated Hosts
- Scheduled Instances
- Capacity Reservations

IMAGES
- AMIs
- Bundle Tasks

ELASTIC BLOCK STORE
- Volumes
- Snapshots
- Lifecycle Manager

NETWORK & SECURITY
- Security Groups
- Elastic IPs
- Placement Groups
- Key Pairs
- Network Interfaces

LOAD BALANCING

Resources

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

- 0 Running Instances
- 0 Dedicated Hosts
- 0 Volumes
- 0 Key Pairs
- 0 Placement Groups
- 0 Elastic IPs
- 0 Snapshots
- 0 Load Balancers
- 1 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

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

Service Health

Service Status:

US East (N. Virginia):

Availability Zone Status:

us-east-1a: Availability zone is operating normally

us-east-1b: Availability zone is operating normally

us-east-1c: Availability zone is operating normally

us-east-1d: Availability zone is operating normally

us-east-1e: Availability zone is operating normally

us-east-1f: Availability zone is operating normally

Scheduled Events

US East (N. Virginia):

No events

Account Attributes

Supported Platforms

VPC

Default VPC

vpc-8e31aef4

Resource ID length management

Console experiments

Settings

Additional Information

Getting Started Guide

Documentation

All EC2 Resources

Forums

Pricing

Contact Us

AWS Marketplace

Find free software trial products in the AWS Marketplace from the EC2 Launch Wizard. Or try these popular AMIs:

Barracuda CloudGen Firewall for AWS - PAYG

By Barracuda Networks, Inc.
Rating ★★★★★
Starting from $0.60/hr or from $4,599/yr (12% savings) for software + AWS usage fees
View all Infrastructure Software

Matillion ETL for Amazon Redshift

By Matillion
Rating ★★★★★
Starting from $1.37/hr or from $9,950/yr (17% savings) for software + AWS usage fees
View all Business Software

Trend Micro Deep Security

By Trend Micro

Feedback English (US)

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Launch instance wizard | EC2 M

https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard: 67%

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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

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Search for an AMI by entering a search term e.g. "Windows"

Quick Start
My AMIs
AWS Marketplace
Community AMIs

Free tier only

1 to 38 of 38 AMIs

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-0c6b1d09930fac512 (64-bit x86) / ami-0dd387866de2504e4 (64-bit Arm)
Amazon Linux
Free tier eligible
Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras.
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
Select
64-bit (x86)
64-bit (Arm)

Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type - ami-0756fbca465a59a30
Amazon Linux
Free tier eligible
The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
Select
64-bit (x86)

Red Hat Enterprise Linux 8 (HVM), SSD Volume Type - ami-098bb5d92c8886ca1 (64-bit x86) / ami-07bd28c96286169fa (64-bit Arm)
Red Hat
Free tier eligible
Red Hat Enterprise Linux version 8 (HVM), EBS General Purpose (SSD) Volume Type
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
Select
64-bit (x86)
64-bit (Arm)

SUSE Linux Enterprise Server 15 (HVM), SSD Volume Type - ami-06ea7729e394412c8 (64-bit x86) / ami-0d7279e0c13593cb7 (64-bit Arm)
SUSE Linux
Free tier eligible
SUSE Linux Enterprise Server 15 (HVM), EBS General Purpose (SSD) Volume Type. Public Cloud, Advanced Systems Management, Web and Scripting, and Legacy modules enabled.
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
Select
64-bit (x86)
64-bit (Arm)

Ubuntu Server 18.04 LTS (HVM), SSD Volume Type - ami-024a64a6685d05041 (64-bit x86) / ami-01ac7d9c1179d7b74 (64-bit Arm)
Free tier eligible
Ubuntu Server 18.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (http://www.ubuntu.com/cloud/services).
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
Select
64-bit (x86)
64-bit (Arm)

Are you launching a database instance? Try Amazon RDS. Hide

Amazon RDS

Amazon Relational Database Service (RDS) makes it easy to set up, operate, and scale your database on AWS by automating time-consuming database management tasks. With RDS, you can easily deploy **Amazon Aurora, MariaDB, MySQL, Oracle, PostgreSQL, and SQL Server** databases on AWS. Aurora is a MySQL- and PostgreSQL-compatible, enterprise-class database at 1/10th the cost of commercial databases. Learn more about RDS

Launch a database using RDS

Feedback English (US)

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Launch instance wizard | EC2 M

https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard: 67%

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Red Hat Enterprise Linux version 8 (HVM), EBS General Purpose (SSD) Volume Type
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64-bit (Arm)

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64-bit (Arm)

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Free tier eligible
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Launch a database using RDS

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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
☐	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
☑	General purpose	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate	Yes
☐	General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
☐	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
☐	General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes
☐	General purpose	t2.xlarge	4	16	EBS only	-	Moderate	Yes
☐	General purpose	t2.2xlarge	8	32	EBS only	-	Moderate	Yes
☐	General purpose	t3a.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes
☐	General purpose	t3a.micro	2	1	EBS only	Yes	Up to 5 Gigabit	Yes
☐	General purpose	t3a.small	2	2	EBS only	Yes	Up to 5 Gigabit	Yes
☐	General purpose	t3a.medium	2	4	EBS only	Yes	Up to 5 Gigabit	Yes
☐	General purpose	t3a.large	2	8	EBS only	Yes	Up to 5 Gigabit	Yes
☐	General purpose	t3a.xlarge	4	16	EBS only	Yes	Up to 5 Gigabit	Yes
☐	General purpose	t3a.2xlarge	8	32	EBS only	Yes	Up to 5 Gigabit	Yes
☐	General purpose	t3.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes
☐	General purpose	t3.micro	2	1	EBS only	Yes	Up to 5 Gigabit	Yes
☐	General purpose	t3.small	2	2	EBS only	Yes	Up to 5 Gigabit	Yes

Cancel Previous **Review and Launch** Next: Configure Instance Details

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 role to the instance, and more.

Number of instances	1 Launch into Auto Scaling Group
Purchasing option	Request Spot instances
Network	vpc-8e31aef4 (default) Create new VPC
Subnet	No preference (default subnet in any Availability Z Create new subnet
Auto-assign Public IP	Use subnet setting (Enable)
Placement group	Add instance to placement group
Capacity Reservation	Open Create new Capacity Reservation
IAM role	None Create new IAM role
Shutdown behavior	Stop
Enable termination protection	Protect against accidental termination
Monitoring	Enable CloudWatch detailed monitoring Additional charges apply.
Tenancy	Shared - Run a shared hardware instance Additional charges will apply for dedicated tenancy.
Elastic Inference	Add an Elastic Inference accelerator Additional charges apply.
T2/T3 Unlimited	Enable Additional charges may apply

▸ Advanced Details

Cancel Previous Review and Launch Next: Add Storage

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	Encryption
Root	/dev/xvda	snap-0489961315688627 5	8	General Purpose SSD (gp2)	100 / 3000	N/A	☑	Not Encrypted

Add New Volume

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. Learn more about free usage tier eligibility and usage restrictions.

Cancel Previous Review and Launch Next: Add Tags

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	ec2linux	☑	☑	⊗
Department	Dev	☑	☑	⊗
OS	LINUX	☑	☑	⊗

Add another tag (Up to 50 tags maximum)

Cancel Previous Review and Launch Next: Configure Security Group

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: LinuxEc2

Description: LinuxEc2

Type	Protocol	Port Range	Source		Description
SSH	TCP	22	Anywhere	0.0.0.0/0, ::/0	e.g. SSH for Admin Desktop

Add Rule

Warning

Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Cancel Previous Review and Launch

Step 7: Review Instance Launch

AMI Details

Edit AMI

Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type - ami-0756fbca465a59a30

Free tier eligible

The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.

Root Device Type: ebs Virtualization type: hvm

Instance Type

Edit 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

Security Groups

Edit security groups

Security group name LinuxEc2
Description LinuxEc2

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	0.0.0.0/0	
SSH	TCP	22	::/0	

Instance Details

Edit instance details

Cancel Previous Launch

Step 7: Review Instance Launch

eligible

Root Device Type: ebs Virtualization type: hvm

Instance Type

Edit instance type

Instance Type	ECUs		Network Performance
t2.micro	Variable	1	Low to Moderate

Security Groups

Edit security groups

Security group name LinuxEc2
Description LinuxEc2

Type	Pr	Description
SSH	TC	
SSH	TC	

Instance Details

Edit instance details

Storage

Edit storage

Tags

Edit tags

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.

Choose an existing key pair

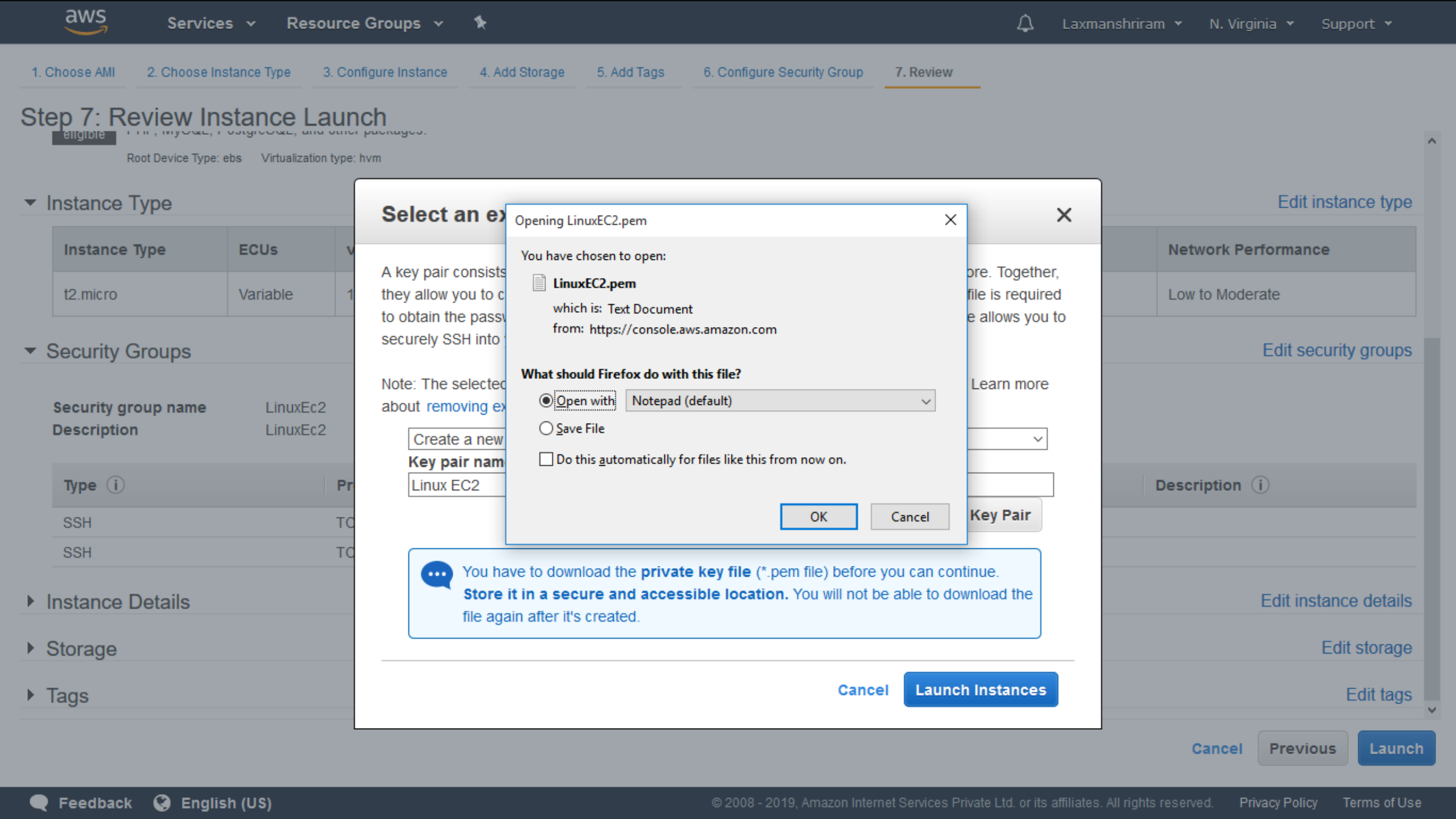
Select a key pair

No key pairs found

No key pairs found

You don't have any key pairs. Please create a new key pair by selecting the **Create a new key pair** option above to continue.

Cancel Launch Instances


aws
Services
Resource Groups
Laxmanshriram
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 7: Review Instance Launch
Root Device Type: ebs
Virtualization type: hvm
Instance Type
Edit instance type
Instance Type
ECUs
Network Performance
t2.micro
Variable
Low to Moderate
Security Groups
Edit security groups
Security group name
LinuxEc2
Description
LinuxEc2
Type
Description
SSH
SSH
Instance Details
Edit instance details
Storage
Edit storage
Tags
Edit tags
Cancel
Previous
Launch
Select an ex
A key pair consists
they allow you to c
to obtain the passw
securely SSH into
ore. Together,
file is required
e allows you to
Learn more
Note: The selected
about removing ex
Create a new
Key pair nam
Linux EC2
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
Opening LinuxEC2.pem
You have chosen to open:
LinuxEC2.pem
which is: Text Document
from: https://console.aws.amazon.com
What should Firefox do with this file?
Open with
Notepad (default)
Save File
Do this automatically for files like this from now on.
OK
Cancel
Feedback
English (US)
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Launch Status

Initiating Instance Launches

Please do not close your browser while this is loading

Creating security groups...

Launch Status

Your instances are now launching

The following instance launches have been initiated: i-0401a45d5fb7350b5 View launch log

Get notified of estimated charges

Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).

How to connect to your instances

Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances.

Click **View Instances** to monitor your instances' status. Once your instances are in the **running** state, you can **connect** to them from the Instances screen. Find out how to connect to your instances.

Here are some helpful resources to get you started

- How to connect to your Linux instance
- Learn about AWS Free Usage Tier
- Amazon EC2: User Guide
- Amazon EC2: Discussion Forum

While your instances are launching you can also

Create status check alarms to be notified when these instances fail status checks. (Additional charges may apply)

Create and attach additional EBS volumes (Additional charges may apply)

Manage security groups

View Instances