



Windows Cloud Server Installation Study on Amazon Web Services

1 EPAL Chiou



10 steps away from a Windows Server with Amazon Web Services (AWS) - Elastic Cloud Computing (EC2)

The screenshot shows the AWS Management Console for the EU Central (Frankfurt) region. The left sidebar contains navigation options for the EC2 Dashboard, including Events, Tags, Reports, Limits, INSTANCES (Instances, Launch Templates, Spot Requests, Reserved Instances, Dedicated Hosts, Capacity Reservations), IMAGES (AMIs, Bundle Tasks), ELASTIC BLOCK STORE (Volumes, Snapshots, Lifecycle Manager), and NETWORK & SECURITY.

The main content area is titled "Resources" and lists the following EC2 resources in the EU Central (Frankfurt) region:

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

Below the resource list is a "Create Instance" section with a "Launch Instance" button. A note states: "Your instances will launch in the EU Central (Frankfurt) region".

The "Service Health" section shows the status for "EU Central (Frankfurt)":

- Service Status: EU Central (Frankfurt): No events
- Availability Zone Status: EU Central (Frankfurt): No events

The right sidebar shows "Account Attributes" (Supported Platforms, VPC, Default VPC, vpc-b8151ed3, Resource ID length management, Console experiments) and "Additional Information" (Getting Started Guide, Documentation, All EC2 Resources, Forums, Pricing, Contact Us).

The bottom of the page includes a footer with "Feedback", "English (US)", copyright information, "Privacy Policy", and "Terms of Use". The system tray shows the time as 9:00 πμ on 8/4/2019.

Step 1:

[Create an Instance with wizard](#)

The screenshot shows the AWS Management Console interface for selecting an Amazon Machine Image (AMI). The breadcrumb navigation at the top indicates the steps: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage, 5. Add Tags, 6. Configure Security Group, 7. Review. The current step is 'Step 1: Choose an Amazon Machine Image (AMI)'. The page lists several AMIs with their details:

- Ubuntu Server 18.04 LTS (HVM, SSD Volume Type - ami-090f10efc254eaf55)**: Root device type: ebs, Virtualization type: hvm, ENA Enabled: Yes. Includes a 'Select' button.
- Microsoft Windows Server 2019 Base - ami-0a79cfa8817a1e572**: Root device type: ebs, Virtualization type: hvm, ENA Enabled: Yes. Includes a 'Select' button.
- Microsoft Windows Server 2019 Base with Containers - ami-0bd2dff311f6c1d86**: Root device type: ebs, Virtualization type: hvm, ENA Enabled: Yes. Includes a 'Select' button.
- Microsoft Windows Server 2019 with SQL Server 2017 Standard - ami-008e45aa83e4b1991**: Root device type: ebs, Virtualization type: hvm, ENA Enabled: Yes. Includes a 'Select' button.
- Microsoft Windows Server 2019 with SQL Server 2017 Enterprise - ami-0378510a0fa4e902d**: Root device type: ebs, Virtualization type: hvm, ENA Enabled: Yes. Includes a 'Select' button.
- Microsoft Windows Server 2019 with SQL Server 2016 Standard - ami-04489648c8b0e1e06**: Root device type: ebs, Virtualization type: hvm, ENA Enabled: Yes. Includes a 'Select' button.

A promotional banner for Amazon RDS is also present, stating: 'Are you launching a database instance? Try 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'. It includes a 'Launch a database using RDS' button and a 'Hide' link.

Step 2:

Choose an Amazon Machine Image (AMI)

Step 2: Choose an Instance Type

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 <small>Free tier eligible</small>	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.xlarge	4	16	EBS only	-	Moderate	Yes
<input type="checkbox"/>	General purpose	t2.xlarge	8	32	EBS only	-	Moderate	Yes
<input type="checkbox"/>	General purpose	t3.nano	2	0.5	EBS only	Yes	Up to 5 Gbit	Yes

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

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Step 3: **choose Instance type (CPU, Memory, Storage)**

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 [Launch into Auto Scaling Group](#)

Purchasing option Request Spot instances

Network [Create new VPC](#)

Subnet [Create new subnet](#)

Auto-assign Public IP

Placement group Add instance to placement group

Capacity Reservation [Create new Capacity Reservation](#)

Domain join directory [Create new directory](#)

IAM role [Create new IAM role](#)

Shutdown behavior

Enable termination protection Protect against accidental termination

Monitoring Enable CloudWatch detailed monitoring
Additional charges apply.

Tenancy
Additional charges will apply for dedicated tenancy.

Elastic Graphics Add Graphics Acceleration
Additional charges apply.

T2/T3 Unlimited Enable
Additional charges may apply

▶ **Advanced Details**

Cancel Previous **Review and Launch** Next: Add Storage

Step 4:

[Configure Instance Details](#)



The screenshot shows the AWS Management Console interface for the 'Add Storage' step of the EC2 Launch Wizard. The breadcrumb navigation at the top includes: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage (highlighted), 5. Add Tags, 6. Configure Security Group, and 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-07b1f3c6760fcb953	30	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	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.

Navigation buttons: [Cancel](#) [Previous](#) [Review and Launch](#) [Next: Add Tags](#)

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Step 5:

Select the amount and type of storage

The screenshot shows the AWS Management Console interface for the EC2 Launch Wizard. The breadcrumb navigation at the top indicates the current step is "5. Add Tags". The main heading is "Step 5: Add Tags". Below the heading, there is explanatory text: "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." Below this text is a table for adding tags. The table has columns for "Key", "Value", "Instances", and "Volumes". A single tag is entered: Key "1EPAL Chiou" and Value "school erasmus windows server". Both the "Instances" and "Volumes" checkboxes are checked. There is a button "Add another tag" and a note "(Up to 50 tags maximum)". At the bottom of the wizard, there are buttons for "Cancel", "Previous", "Review and Launch", and "Next: Configure Security Group". The footer of the console shows "Feedback", "English (US)", and copyright information for Amazon Web Services, Inc. The Windows taskbar is visible at the very bottom of the image.

Launch instance wizard | EC2 Ma x

https://eu-central-1.console.aws.amazon.com/ec2/v2/home?region=eu-central-1#LaunchInstanceWizard:

Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

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 ⁽ⁱ⁾	Volumes ⁽ⁱ⁾	
1EPAL Chiou	school erasmus windows server	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

[Add another tag](#) (Up to 50 tags maximum)

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Configure Security Group](#)

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Step 6:

Adding Tags

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:

Description:

Type	Protocol	Port Range	Source	Description
RDP	TCP	3389	Custom 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](#)

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10:07 AM 9/5/2019

Step 7: *Choice or Creation of a Security Group*

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.

AMI Details

[Edit AMI](#)



Microsoft Windows Server 2019 Base with Containers - ami-0b2875a593613e693

Free tier eligible

Microsoft Windows 2019 Datacenter edition with Containers. [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

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: school security group
Description: launch-wizard-3 created 2019-04-08T09:28:34.287+03:00

Type	Protocol	Port Range	Source	Description
RDP	TCP	3389	194.63.199.202/32	

Instance Details

[Edit instance details](#)

Storage

[Edit storage](#)

Tags

[Edit tags](#)

Cancel Previous **Launch**

Step 8:

Reviewing the Instance before launch



The screenshot shows the AWS Management Console at the 'Review Instance Launch' step. A warning message states: 'Improve your instances' security. Your security group, launch-wizard-1, 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'. The 'Instance Type' section shows a table with columns: Instance Type, ECUs, vCPUs, Memory (GiB), and Instance Profile. The selected instance type is 't2.micro' with 1 vCPU and 1 GiB of memory. The 'Security Groups' section shows a table with columns: Type, Protocol, Port Range, Source, and Description. The selected security group is 'launch-wizard-1' with a description 'launch-wizard-1 created 2019-05-09T10:19:55.565+03:00'. A modal dialog titled 'Select an existing key pair or create a new key pair' is open, showing a dropdown menu for 'Choose an existing key pair' with '070519' selected, and a checkbox for 'I acknowledge that I have access to the selected private key file (070519.pem), and that without this file, I won't be able to log into my instance.' The 'Launch' button is highlighted.

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Profile
t2.micro	Variable	1	1	EB...

Type	Protocol	Port Range	Source	Description
RDP	TCP	3389	0.0.0.0/0	

Step 9: Reviewing the Instance before launch

The screenshot shows the AWS Management Console interface for EC2 instances. A modal dialog titled "Connect To Your Instance" is displayed in the foreground. The dialog contains the following text:

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** ec2-54-93-228-221.eu-central-1.compute.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

The background shows a table of instances with the following columns: Name, Instance ID, Instance Type, Availability Zone, Instance State, Status Checks, Alarm Status, and Public IP Address. The table contains two rows of instance data.

Step 10:

***Download Remote desktop file
& Getting the Password***



Hostname: EC2AMAZ-JVPOAD8
Instance ID: i-02e23dfc2b45ad956
Public IP Address: 54.93.228.221
Private IP Address: 172.31.47.115
Instance Size: t2.micro
Availability Zone: eu-central-1b
Architecture: AMD64
Total Memory: 1 GB
Network Performance: Low to Moderate

Server Manager Dashboard

WELCOME TO SERVER MANAGER

- 1 Configure this local server
- 2 Add roles and features
- 3 Add other servers to manage
- 4 Create a server group
- 5 Connect this server to cloud services

ROLES AND SERVER GROUPS

Roles: 0 | Server groups: 1 | Servers total: 1

Local Server	1	All Servers	1
Manageability		Manageability	
Events		Events	
Services		Services	
Performance		Performance	
BPA results		BPA results	

- Add Roles and Features
- Remove Roles and Features
- Add Servers
- Create Server Group
- Server Manager Properties

We are in!

