

**Configuring an EC2 Instance in AWS**

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**RECORD OF CHANGES**

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## 1.0 Introduction

This guide outlines the process for configuring an EC2 (Elastic Compute Cloud) instance in Amazon Web Services (AWS). Follow these steps to create, configure, and launch an EC2 instance.

## 2.0 Prerequisites

1. AWS Account: Ensure you have an active AWS account.

2. IAM Role: Confirm you have appropriate permissions (e.g., AdministratorAccess or specific EC2 privileges).

3. Key Pair: A key pair is required to securely connect to the instance. You can create one during the configuration process if needed.

4. VPC Configuration: Ensure a Virtual Private Cloud (VPC) is available for the instance.

## Step 1: Access the AWS Management Console

1. Log in to your AWS account at [https://aws.amazon.com](https://aws.amazon.com/).

2. Navigate to the EC2 Dashboard by searching for “EC2” in the Services search bar.

## Step 2: Launch an EC2 Instance

1. In the EC2 Dashboard, click Launch Instances.

2. Provide the instance name in the Name and Tags section. (e.g., MyEC2Instance).

## Step 3: Select an Amazon Machine Image (AMI)

1. Choose an AMI that meets your requirements:

• Amazon Linux 2 (free-tier eligible) for general purposes.

• Windows Server or other operating systems based on your use case.

2. Use the search or filters to locate the desired AMI and select it.

## Step 4: Choose an Instance Type

1. Select an instance type based on your application needs:

• t2.micro: Free-tier eligible and suitable for low-load applications.

• For high-performance requirements, consider larger instance types like m5.large or c5.xlarge.

2. Click Next: Configure Instance Details.

## Step 5: Configure Instance Details

1. Number of Instances: Specify the number of instances to launch (default is 1).

2. Network: Select the VPC where the instance will reside.

3. Subnet: Choose a subnet for your instance.

4. Auto-assign Public IP: Enable this if you want the instance to have a public IP address for internet access.

5. Configure advanced options if needed (e.g., IAM role, user data scripts, or tenancy).

6. Click Next: Add Storage.

## Step 6: Add Storage

1. Specify the size of the root volume (default is 8 GiB for Amazon Linux 2).

2. Add additional volumes if required.

3. Click Next: Add Tags.

## Step 7: Add Tags

1. Add tags to organize and manage your resources (optional but recommended).

• Example: Key: Name, Value: MyEC2Instance.

2. Click Next: Configure Security Group.

## Step 8: Configure Security Group

1. Create a new security group or select an existing one.

2. Add rules to allow inbound traffic based on your application needs:

• SSH (22): For Linux instances, to allow secure access from your IP address.

• RDP (3389): For Windows instances.

• Add custom ports if required for your application.

3. Click Review and Launch.

## Step 9: Review Instance Configuration

1. Review all instance details to ensure accuracy.

2. Click Launch.

## Step 10: Select a Key Pair

1. Select an existing key pair or create a new one:

• If creating a new key pair, download the private key file (.pem) and store it securely.

• Note: The key pair is required to connect to your instance.

2. Confirm your selection and click Launch Instances.

## Step 11: Verify the Instance Launch

1. Return to the EC2 Dashboard and navigate to the Instances page.

2. Locate your instance and confirm its State is Running.

## Step 12: Connect to the EC2 Instance

1. Select your instance in the Instances page and click Connect.

2. Follow the instructions based on your connection method:

• SSH: For Linux instances, use an SSH client with your .pem file.

• RDP: For Windows instances, use a Remote Desktop client.

3. Test the connection to ensure proper setup.

## Step 13: Configure the Instance

1. Update the system:

• For Amazon Linux: sudo yum update -y.

• For Ubuntu: sudo apt update && sudo apt upgrade -y.

2. Install additional software or configure the instance as needed.

## Step 14: Secure the Instance

1. Regularly review and update security group rules.

2. Apply OS-level security best practices.

3. Monitor instance health and performance via AWS CloudWatch.

**Conclusion**

You have successfully configured and launched an EC2 instance in AWS. Ensure you terminate instances when no longer needed to avoid unnecessary charges.