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# Install CloudWatch Logs Agent on EC2 Instance and View CloudWatch Metrics

Level: **Intermediate**[Amazon EC2](#)[Identity And Access Management](#)[Amazon CloudWatch](#)[Amazon CloudWatch Logs](#)[Amazon Web Services](#)

English ▼


 Your last attempt on **25-Apr-2024**[View all](#)

Lab Overview

Lab Steps

Lab Validation

Video Guide

 Cloud DevOps Engineer, Cloud Security Engineer, Cloud Administrator Compute, Management & Governance

## Lab Steps

### Task 1: Sign in to AWS Management Console

1. Click on the **Open Console** button, and you will get redirected to AWS Console in a new browser tab.

 0h 21m 34s left 

End Lab

[Open Console](#)

Validation

#### Lab Credentials

**User Name** Whiz\_User\_177267.18753259 **Password** 6bc210ec-4c87-417a-a677- 

## 2. On the AWS sign-in page,

- Leave the Account ID as default. Never edit/remove the 12 digit Account ID present in the AWS Console. otherwise, you cannot proceed with the lab.
- Now copy your **User Name** and **Password** in the Lab Console to the **IAM Username and Password** in AWS Console and click on the **Sign in** button.

## 3. Once Signed In to the AWS Management Console, Make the default AWS Region as **US East (N. Virginia) us-east-1**.

## Task 2: Launching an EC2 Instance

In this task, we are going to launch an EC2 Instance by providing the required configurations like name, instance type, key pair, security group and IAM instance profile.

1. Make sure you are in the **N.Virginia** Region.
2. Navigate to **EC2** by clicking on the **Services** menu at the top, then click on **EC2** in the **Compute** section.
3. Navigate to **Instances** on the left panel and click on **Launch instances** button.
4. Enter Name as **MyEC2Server**
5. Select **Amazon Linux** from the Quick Start and Select **Amazon Linux 2 AMI** from the drop-down.
6. Choose **Architecture** as **64-bit(x86)**

### Access Key ⓘ

AKIA6RKK5UVDPF3IQUUM



### Secret Key ⓘ

uz9fe9XUzY+c3flcLf39VTXm



### Lab Resources



No Lab Resources Found

### Support Documents



1. [FAQs and Troubleshooting](#)

### Need help?

- How to use Hands on Lab
- Troubleshooting Lab
- FAQs

[Submit Feedback](#)[Share](#)

### Application and OS Images (Amazon Machine Image) [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Recents

Quick Start

Amazon Linux  
aws

Ubuntu  
ubuntu

Windows  
Microsoft

Red Hat  
Red Hat

SUSE Linux  
SUSE

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type  
ami-0cff7528ff583bf9a (64-bit (x86)) / ami-00bf5f1c358708486 (64-bit (Arm))  
Virtualization: hvm   ENA enabled: true   Root device type: ebs

Free tier eligible

Description

Amazon Linux 2 Kernel 5.10 AMI 2.0.20220606.1 x86\_64 HVM gp2

Architecture	AMI ID
64-bit (x86)	ami-0cff7528ff583bf9a

7. Choose an **Instance Type**: Select **t2.micro**

<https://www.whizlabs.com/labs/install-cloudwatch-logs-agent-on-ec2-instance-and-view-cloudwatch-metrics>

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▼ Instance type [Info](#)

Instance type

t2.micro

Family: t2 1 vCPU 1 GiB Memory

On-Demand Linux pricing: 0.0116 USD per Hour

On-Demand Windows pricing: 0.0162 USD per Hour

Free tier eligible

▼

[Compare instance types](#)

8. For **Key pair**: Select **Create a new key pair** Button

- Key pair name: Enter **WhizKey**
- Key pair type: Select **RSA**
- Private key file format: Select **.pem**

9. Select **Create key pair** Button.

**Create key pair**

Key pair name  
Key pairs allow you to connect to your instance securely.  
MyEC2Key  
The name can include upto 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type

☒ RSA  
RSA encrypted private and public key pair

☐ ED25519  
ED25519 encrypted private and public key pair

Private key file format

☒ .pem  
For use with OpenSSH

☐ .ppk  
For use with PuTTY

⚠ When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance. [Learn](#)

Cancel Create key pair

10. In Network Settings Click on **Edit** Button:

- Auto-assign public IP: **Enable**
- Select **Create new Security group**
- Security group name : Enter **MyEC2Server\_SG**
- Description : Enter **Security Group to allow traffic to EC2**

Auto-assign public IP [Info](#)

Enable

**Firewall (security groups)** [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☒ Create security group ☐ Select existing security group

Security group name - *required*

MyEC2Server\_SG

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and . \_ - / ( ) # , @ [ ] + = & ; { } ! \$ \*

Description - *required* [Info](#)

Security Group to allow traffic to EC2

- To add **SSH**, (Ignore if already added by default)
  - Choose Type: Select **SSH**
  - Source: Select **Anywhere**

11. Scroll Down to **Advanced Settings**, Select **IAM instance profile** already created for you as **task124\_ec2\_<RANDOM\_NUMBER>**

12. **Leave** the rest of the things as default. Click on **Launch instance** button.

## Task 4: SSH into the EC2 Instance

- Please follow the steps in [SSH into EC2 Instance](#).

## Task 5: Download and Install the Cloudwatch Agent

In this task, we will download and install the CloudWatch agent on the EC2 Instance.

## 1. Download the Cloudwatch Unified Agent

```
wget https://s3.amazonaws.com/amazoncloudwatch-agent/amazon_linux/amd64/latest/amazon-cloudwatch-agent.rpm
```

```
[root@ip-172-31-90-122 ec2-user]# wget https://s3.amazonaws.com/amazoncloudwatch-agent/amazon_linux/amd64/latest/amazon-cloudwatch-agent.rpm
--2020-02-05 07:36:47-- https://s3.amazonaws.com/amazoncloudwatch-agent/amazon_linux/amd64/latest/amazon-cloudwatch-agent.rpm
Resolving s3.amazonaws.com (s3.amazonaws.com)... 52.216.113.53
Connecting to s3.amazonaws.com (s3.amazonaws.com)|52.216.113.53|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 59888618 (57M) [application/octet-stream]
Saving to: 'amazon-cloudwatch-agent.rpm'

100%[=====>] 59,888,618 68.5MB/s in 0.8s

2020-02-05 07:36:48 (68.5 MB/s) - 'amazon-cloudwatch-agent.rpm' saved [59888618/59888618]
```

## 2. Install the Cloudwatch Agent

```
sudo rpm -U ./amazon-cloudwatch-agent.rpm
```

```
[root@ip-172-31-90-122 ec2-user]# rpm -U ./amazon-cloudwatch-agent.rpm
create group cwagent, result: 0
create user cwagent, result: 0
```

# Task 6: Configure and Start the Cloudwatch Agent

## 1. Open the setup wizard

```
sudo /opt/aws/amazon-cloudwatch-agent/bin/amazon-cloudwatch-agent-config-wizard
```

```
[root@ip-172-31-90-122 ec2-user]# /opt/aws/amazon-cloudwatch-agent/bin/amazon-cl  
oudwatch-agent-config-wizard
```

## 2. Enter these values asked during setup:

- On which OS are you planning to use the agent? : Enter **1**
- Are you using EC2 or On-Premises? : Enter **1**
- Which user are you planning to run the agent? : Enter **1**
- Do you want to turn on the StatsD daemon? : Enter **2**
- Do you want to monitor metrics from CollectD? : Enter **2**
- Do you want to monitor any host metrics? Enter **1**
- Do you want to monitor CPU metrics per core? Enter **1**
- Do you want to add ec2 dimensions into all of your metrics if the info is available? : Enter **1**
- Would you like to collect your metrics at high resolution? : Enter **1** (1s)
- Which default metrics config do you want?: Enter **2**
- Are you satisfied with the above config? Enter **1**
- Do you have any existing CloudWatch log Agent configuration file to import for migration? : Enter **2**
- Do you want to monitor any log files? : Enter **2**
- Do you want to store the config in the SSM parameter store? : Enter **2**

**Note: if you make any mistakes in the above configuration, you can run the configuration setup again whenever you want. The configurations that you**



make is saved in a JSON File.

### 3. Start the Agent:

```
sudo /opt/aws/amazon-cloudwatch-agent/bin/amazon-cloudwatch-agent-ctl -a fetch-config -m ec2 -c file:/opt/aws/amazon-cloudwatch-agent/bin/config.json -s
```

```
[root@ip-172-31-90-122 ec2-user]# sudo /opt/aws/amazon-cloudwatch-agent/bin/amazon-cloudwatch-agent-ctl -a fetch-config -m ec2 -c file:/opt/aws/amazon-cloudwatch-agent/bin/config.json -s
```

### 4. Check Agent Status

```
systemctl status amazon-cloudwatch-agent
```

```
[root@ip-172-31-90-122 ec2-user]# systemctl status amazon-cloudwatch-agent
● amazon-cloudwatch-agent.service - Amazon CloudWatch Agent
   Loaded: loaded (/etc/systemd/system/amazon-cloudwatch-agent.service; enabled; vendor prese
   Active: active (running) since Wed 2020-02-05 07:42:14 UTC; 1min 24s ago
     Main PID: 3676 (amazon-cloudwat)
    CGroup: /system.slice/amazon-cloudwatch-agent.service
            └─3676 /opt/aws/amazon-cloudwatch-agent/bin/amazon-cloudwatch-agent -config /opt/a

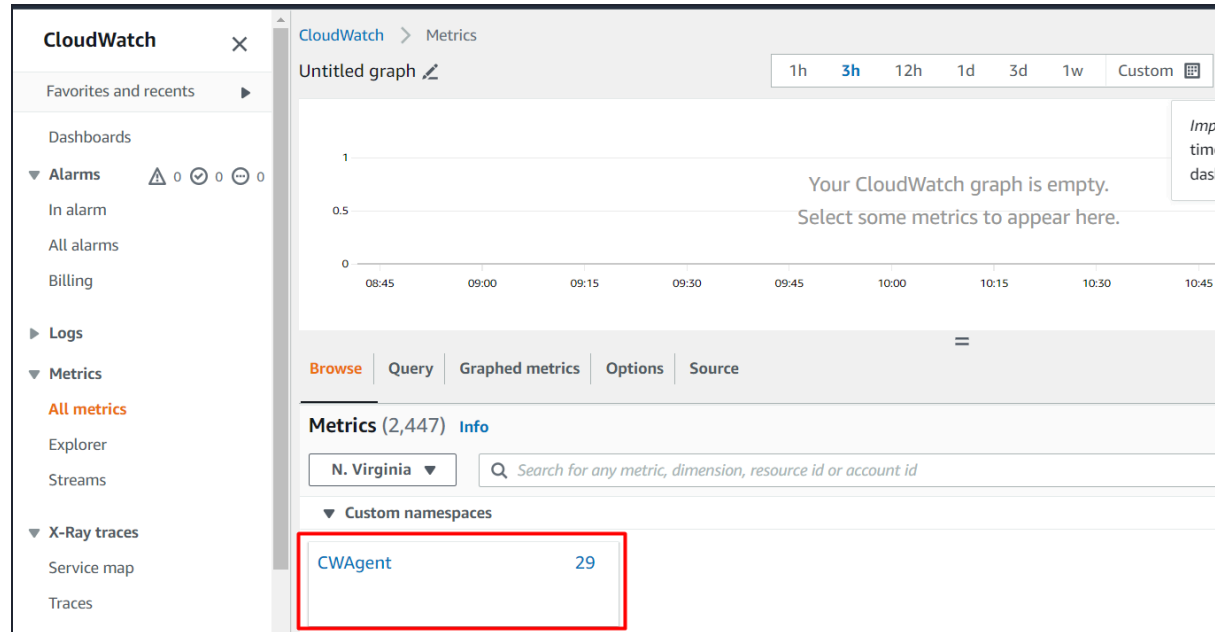
Feb 05 07:42:14 ip-172-31-90-122.ec2.internal systemd[1]: Started Amazon CloudWatch Agent.
Feb 05 07:42:14 ip-172-31-90-122.ec2.internal systemd[1]: Starting Amazon CloudWatch Agent...
Feb 05 07:42:14 ip-172-31-90-122.ec2.internal start-amazon-cloudwatch-agent[3676]: /opt/aws/a
Feb 05 07:42:14 ip-172-31-90-122.ec2.internal start-amazon-cloudwatch-agent[3676]: Valid Jso
Feb 05 07:42:14 ip-172-31-90-122.ec2.internal start-amazon-cloudwatch-agent[3676]: I! Detecti
Feb 05 07:42:15 ip-172-31-90-122.ec2.internal start-amazon-cloudwatch-agent[3676]: 2020/02/05
Hint: Some lines were ellipsized, use -l to show in full.
```

## Task 7: View the CloudWatch Metrics

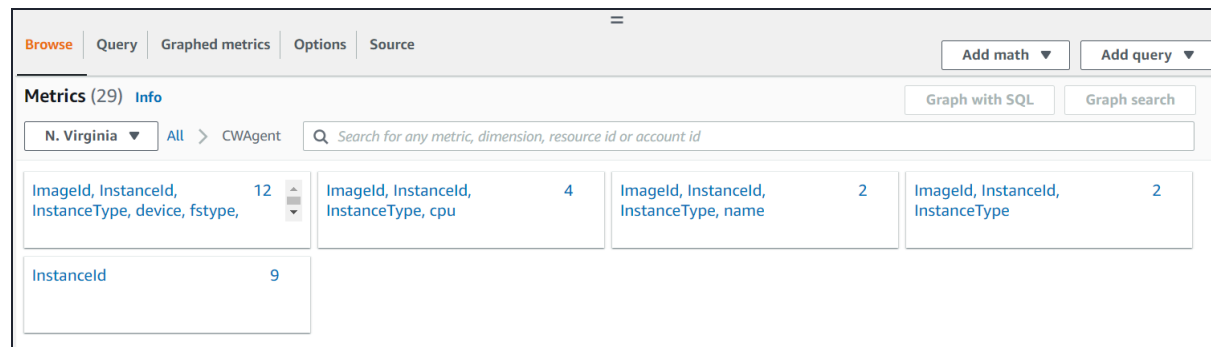
1. Navigate to **CloudWatch** by clicking on the **Services** menu available under the **Management and Governance** section.
2. Make sure you are in the **N.Virginia** Region.

- Click on **All Metrics** under **Metrics** in the Left Panel.
- You should be able to see **CWAgent** under **All Metrics (Custom Namespaces)**.

**Note: If you are not able to see CWAgent, please wait for at least 2 minutes and then refresh the browser page.**



- Click on the CloudWatch Agent and you will be able to see visuals for that metric

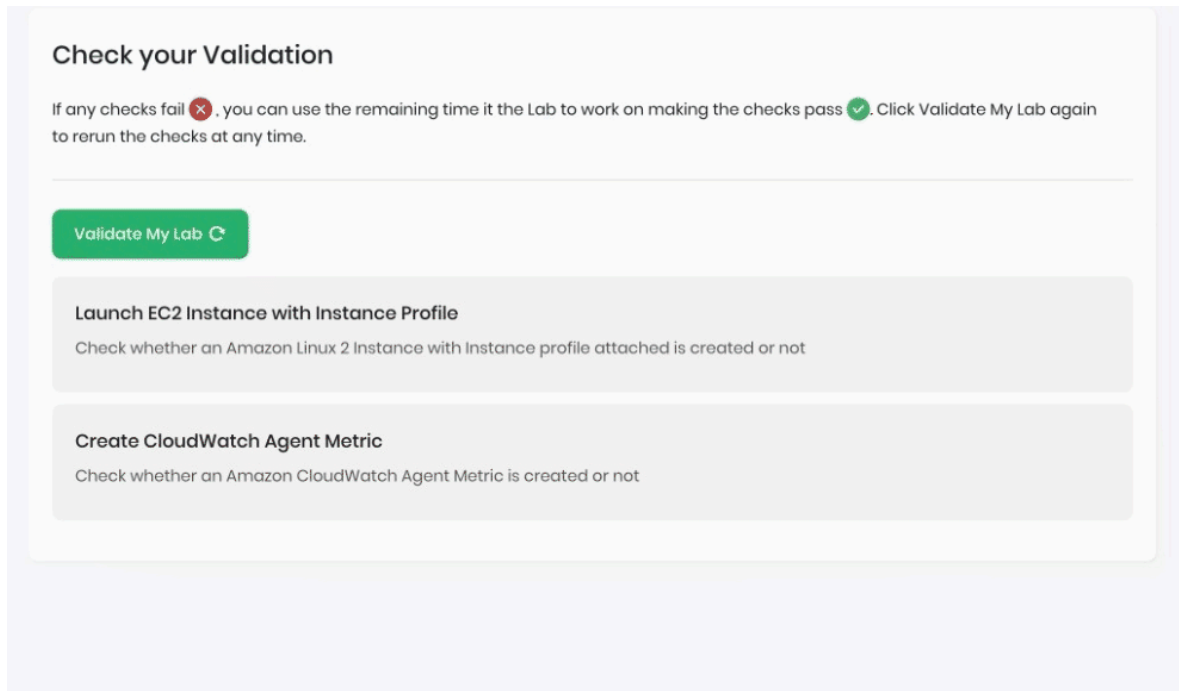


## Do you know?

The CloudWatch Logs Agent is configured through a JSON-formatted configuration file. This file specifies the log files to monitor, the log group to send the data to, and other parameters such as log rotation settings and timestamps.

### Task 5 : Validation Test

1. Once the lab steps are completed, please click on the Validation button on the left side panel.
2. This will validate the resources in the AWS account and displays whether you have completed this lab successfully or not.
3. Sample output :



## Completion and Conclusion

1. You have created an EC2 Instance.
2. You have successfully accessed the EC2 instance via SSH.
3. You have downloaded and installed the CloudWatch Agent.
4. You have configured and started the agent.
5. You have viewed a cloud metric in CloudWatch.

## End Lab

1. Sign out of AWS Account.

2. You have successfully completed the lab.

3. Once you have completed the steps, click on **End Lab** from your whizlabs dashboard.

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