

**Management & Governance**

# Amazon Cloud Watch

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## **AWS CloudWatch**

Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS.



# What is CloudWatch?

- Amazon CloudWatch monitors operational and performance metrics for your AWS cloud resources and applications.
- You can create your own dashboards of which metric you want to measure
- A **metric** represents a time-ordered set of data points that are published to **CloudWatch**.
- A **metric** as a variable to monitor, and the data points as representing the values of that variable over time.
  - For example, the CPU usage of a particular EC2 instance is one **metric** provided by Amazon EC2.
- You can also set alarms and automate actions to manage your EC2, RDS and S3.

# Monitoring



Amazon  
CloudWatch

## Basic monitoring

Is free

Polls every 5 minutes

10 metrics

5GB of data ingestion

5GB of data storage

## Detailed monitoring

Is chargeable

Charged per instance per month

Polls every minute

# Dashboards

## Metrics

AWS CloudWatch allows you to record metrics for EBS, EC2, ELB, and S3.



# Create Dashboard

- Provide a name to your dashboard
- Choose a widget type by which the reports should be available on the dashboard
- Now choose to which resource you want to monitor
  - Give instance -id in search box
- Now create a widget of any type by specifying the performance measure you want to watch
- You can add as many as widgets for the same resource

# Alarms

Set alarms to warn based on resources usage, for example CPU utilization is too high.



- Shutdown/Terminate/Add more instances to share the Load

# Create alarms

- You can create alarms and automate certain actions in the resources
- Give the alarm the name and the description
- Select the resource you want to trigger an alarm
- Set the threshold
- Specify the action.



# Logs

Install agents on EC2 instances to send monitoring data about the instance to CloudWatch.





## Demo—Amazon Cloudwatch

Configure AWS cloudwatch to shutdown idle instances

CLOUD  
COMPUTING

## Modify Alarm



1. Select Metric   **2. Define Alarm**

### Alarm Threshold

Provide the details and threshold for your alarm. Use the graph on the right to help set the appropriate threshold.

Name:

Description:

Whenever: CPUUtilization

is:

for:  consecutive period(s)

### Actions

Define what actions are taken when your alarm changes state.

EC2 Action

Delete

Whenever this alarm:

- Take this action:
- ☐ Recover this instance ⓘ
  - ☒ Stop this instance ⓘ
  - ☐ Terminate this instance ⓘ
  - ☐ Reboot this instance ⓘ

This will stop your EC2 instance (i-768678ea).  
You can only stop an instance if it is backed by an EBS volume.

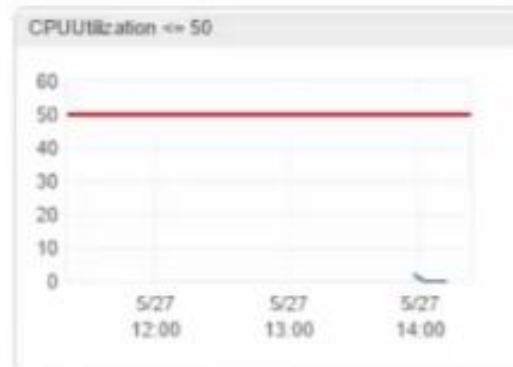
+ Notification

+ AutoScaling Action

+ EC2 Action

### Alarm Preview

This alarm will trigger when the blue line goes down to or below the red line for a duration of 5 minutes



Namespace: AWS/EC2

InstanceId:

InstanceName: SIMPLILEARN\_CLOUDWATCH\_DEMO

Metric Name:

Period:

Statistic:

# Alarm Executed

Launch Instance Connect Actions

search: SIMPL Add Filter

| Name                        | Instance ID | Instance Type | Availability Zone | Instance State | Status Checks | Alarm Status | Public DNS | Public IP | Key Name            |
|-----------------------------|-------------|---------------|-------------------|----------------|---------------|--------------|------------|-----------|---------------------|
| SIMPLILEARN_CLOUDWATCH_DEMO | i-758678ea  | t2.nano       | us-east-1b        | stopped        |               | ALARM        |            |           | SIMPLILEARN_KEYPAIR |

You have learned how to configure AWS CloudWatch to shutdown idle instances.

Instance: i-758678ea (SIMPLILEARN\_CLOUDWATCH\_DEMO) Private IP: 172.31.59.7

| Description           | Status Checks                                    | Monitoring | Tags |
|-----------------------|--|------------|------|
| Instance ID           | i-758678ea                                       |            |      |
| Instance state        | stopped  |            |      |
| Instance type         | t2.nano  |            |      |
| Private DNS           | ip-172-31-59-7.ec2.internal                      |            |      |
| Private IPs           | 172.31.59.7                                      |            |      |
| Secondary private IPs |  |            |      |
| VPC ID                | vpc-612b5904                                     |            |      |
| Subnet ID             | subnet-a571af8e                                  |            |      |
| Network interfaces    | eth0   |            |      |
| Source/dest. check    | True   |            |      |
| Public DNS            |  |            |      |
| Public IP             |  |            |      |
| Elastic IP            |  |            |      |
| Availability zone     | us-east-1b                                       |            |      |
| Security groups       | default view rules                               |            |      |
| Scheduled events      |  |            |      |
| AMI ID                | amzn-ami-hvm-2016.03.1-x86_64-gp2 (ami-f5f41398) |            |      |
| Platform              |  |            |      |
| IAM role              |  |            |      |
| Key pair name         | SIMPLILEARN_KEYPAIR                              |            |      |
| Owner                 | 367622474624                                     |            |      |

1 search filter Max 77 7016 at 6:05:46 AM EDT, 7 days from now (UTC)

# Video Tutorial

- [https://www.youtube.com/watch?v=\\_Tqce6pGb44](https://www.youtube.com/watch?v=_Tqce6pGb44)