

# SES,SNS,CloudWatch Session

## 1. Monitor Your Estimated Charges Using CloudWatch

Step 1: Enable Billing Alerts

Step 2: Create a Billing Alarm

Step 3: Check the Alarm Status

Step 4: Create & Subscribe to SNS Topic

Step 5: Send a notification all the stakeholder, if AWS resource pricing reaches the threshold value.

In question1 Billing metric is not authorized so i made alarm on cpu utilization on ec2 instance and

### Specify metric and conditions

Metric

Graph

Preview of the metric or metric expression and the alarm threshold.

Select metric

Cancel

Next

All metrics	Graphed metrics (1)	Graph options	Source
All	EC2	Per-Instance Metrics	i-08d9591fea4917f0c
			Search for any metric, dimension or resource id
			Graph search
	Instance Name (17)	InstanceId	Metric Name
<input type="checkbox"/>	Aman	i-08d9591fea4917f0c	CPUUtilization
<input type="checkbox"/>	Aman	i-08d9591fea4917f0c	NetworkPacketsIn
<input type="checkbox"/>	Aman	i-08d9591fea4917f0c	NetworkPacketsOut
<input checked="" type="checkbox"/>	Aman	i-08d9591fea4917f0c	CPUUtilization
<input type="checkbox"/>	Aman	i-08d9591fea4917f0c	NetworkIn
<input type="checkbox"/>	Aman	i-08d9591fea4917f0c	NetworkOut

## Specify metric and conditions

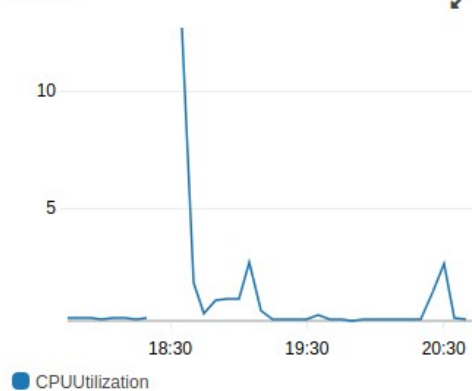
### Metric

[Edit](#)

#### Graph

This alarm will trigger when the blue line goes above the red line for 1 datapoints within 5 minutes.

Percent



Namespace

AWS/EC2

Metric name

CPUUtilization

InstanceId

I-08d9591fea4917f0c

Instance name

Aman

Statistic

Average

### Conditions

#### Threshold type

☒ Static

Use a value as a threshold

☐ Anomaly detection

Use a band as a threshold

#### Whenever CPUUtilization is...

Define the alarm condition.

☒ Greater

> threshold

☐ Greater/Equal

>= threshold

☐ Lower/Equal

<= threshold

☐ Lower

< threshold

#### than...

Define the threshold value.

20

Must be a number

#### ► Additional configuration

[Cancel](#)[Next](#)

## EC2 action

### Alarm state trigger

Define the alarm state that will trigger this action.

Remove



#### In alarm

The metric or expression is outside of the defined threshold.



#### OK

The metric or expression is within the defined threshold.



#### Insufficient data

The alarm has just started or not enough data is available.

### Take the following action...

Define what will happen to the EC2 instance with the Instance ID i-08d9591fea4917f0c when this alarm is triggered.



#### Recover this instance

You can only recover certain EC2 instance types. [See documentation](#)



#### Stop this instance

You can only stop an instance if it is backed by an EBS volume. AWS will use the existing Service Linked Role (AWSServiceRoleForCloudWatchEvents) to perform this action. [Show IAM policy document](#)



#### Terminate this instance

You will not be able to terminate this instance if termination protection is enabled. AWS will use the existing Service Linked Role (AWSServiceRoleForCloudWatchEvents) to perform this action. [Show IAM policy document](#)



#### Reboot this instance

An instance reboot is equivalent to an operating system reboot. AWS will use the existing Service Linked Role (AWSServiceRoleForCloudWatchEvents) to perform this action. [Show IAM policy document](#)

## AWS Notification - Subscription Confirmation

Inbox x



**AWS Notifications** <no-reply@sns.amazonaws.com>  
to me ▾

2:22 AM (4 minutes ago) ☆

You have chosen to subscribe to the topic:  
**arn:aws:sns:us-east-1:187632318301:jay**

To confirm this subscription, click or visit the link below (If this was in error no action is necessary):  
[Confirm subscription](#)

Please do not reply directly to this email. If you wish to remove yourself from receiving all future SNS subscription confirmation requests please send an email to [sns-opt-out](#)



Simple Notification Service

### Subscription confirmed!

You have subscribed jay.patel@tothenew.com to the topic:  
**jay.**

Your subscription's id is:  
**arn:aws:sns:us-east-1:187632318301:jay:8b4ce105-0499-480c-b5b9-366a1b9ff63a**

If it was not your intention to subscribe, [click here to unsubscribe](#).

2. Create a custom Memory metric in CloudWatch and set up alarm at 80 % which will autoscale the instance in the autoscaling group.

Review policy

Name\* jaycloudwatchcpumetric

Use alphanumeric and '+=, @- \_' characters. Maximum 128 characters.

Description cloudwatch cpu metric policy

Maximum 1000 characters. Use alphanumeric and '+=, @- \_' characters.

Summary

Q Filter			
Service	Access level	Resource	Request condition
Allow (1 of 226 services) Show remaining 225			
CloudWatch	Limited: Write	All resources	None

Role ARN	arn:aws:iam::187632318301:role/Cloudwatch-jay-role
Role description	Allows EC2 instances to call AWS services on your behalf.   Edit
Instance Profile ARNs	arn:aws:iam::187632318301:instance-profile/Cloudwatch-jay-role
Path	/
Creation time	2020-04-15 02:42 UTC+0530
Last activity	Not accessed in the tracking period
Maximum CLI/API session duration	1 hour Edit

- Permissions
- Trust relationships
- Tags (2)
- Access Advisor
- Revoke sessions

Permissions policies (2 policies applied)

Attach policies		+ Add inline policy
Policy name	Policy type	
CloudWatchAgentAdminPolicy	AWS managed policy	✕
jaycloudwatchcpumetric	Managed policy	✕

Jay-ec2

i-09146218a91c75e70

t2.micro

Private IPs

10.0.2.153

Secondary private IPs

VPC ID

vpc-006b77e885e346f82 (VPC-ojash)

Subnet ID

subnet-052a7fb445b1ed477 (VPC-ojash-sub2)

Network interfaces

eth0

IAM role

Cloudwatch-jay-role

Key pair name

Jay-ALB

Owner

187632318301

Launch time

April 15, 2020 at 3:05:32 AM UTC+5:30  
(less than one hour)

Termination protection

False

Lifecycle

normal

Monitoring

basic

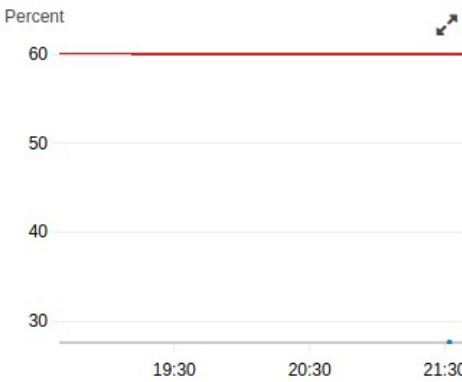
## Specify metric and conditions

**Metric**

Edit

**Graph**

This alarm will trigger when the blue line goes above the red line for 1 datapoints within 1 minute.



Namespace

AWS/EC2

Metric name

CPUUtilization

InstanceId

i-09146218a91c75e70

Instance name

Jay-ec2

Statistic

X

## Conditions

### Threshold type

☒ Static

Use a value as a threshold

☐ Anomaly detection

Use a band as a threshold

### Whenever CPUUtilization is...

Define the alarm condition.

☒ Greater

> threshold

☐ Greater/Equal

>= threshold

☐ Lower/Equal

<= threshold

☐ Lower

< threshold

### than...

Define the threshold value.

60

Must be a number

### ► Additional configuration

Cancel

Next

## EC2 action

### Alarm state trigger

Define the alarm state that will trigger this action.

Remove

☒ In alarm

The metric or expression is outside of the defined threshold.

☐ OK

The metric or expression is within the defined threshold.

☐ Insufficient data

The alarm has just started or not enough data is available.

### Take the following action...

Define what will happen to the EC2 instance with the Instance ID i-08d9591fea4917f0c when this alarm is triggered.

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Recover this instance

You can only recover certain EC2 instance types. [See documentation](#)

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☐


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**Instead of ASG i used ec2 action to trigger to stop the instance if cpu > 60%**

### 3. Create SNS topic, subscribe to a topic, publish message, unsubscribe the message and delete the topic.

 **Topic jaytopic created successfully.**  
You can create subscriptions and send messages to them from this topic.

[Publish message](#) 

[Amazon SNS](#) > [Topics](#) > jaytopic


## jaytopic

[Edit](#) [Delete](#) [Publish message](#)

### Details

Name	Display name
jaytopic	-
ARN	Topic owner
arn:aws:sns:us-east-1:187632318301:jaytopic	187632318301

[Subscriptions](#) | [Access policy](#) | [Delivery retry policy \(HTTP/S\)](#) | [Delivery status logging](#) | [Encryption](#) | [Tags](#)

 **Simple Notification Service**

### Subscription confirmed!

You have subscribed jay.patel@tothenew.com to the topic: **jaytopic**.

Your subscription's id is:  
arn:aws:sns:us-east-1:187632318301:jaytopic:d43dc083-6a23-479a-950c-d58c6fb8954b

If it was not your intention to subscribe, [click here to unsubscribe](#).

### 4. Send a sample mail using SES.

## ▼ Your Amazon SES Sending Limits



User: arn:aws:iam::187632318301:user/jay.patel@tothenew.com is not authorized to perform: ses:GetSendQuota (Request ID: a456104a-a142-4e7c-83c0-51a004f6bc5)

Below are the latest statistics and metrics related to your Amazon SES Usage.

**Sending Quota:**

**Quota Used:**

**Max Send Rate:**

**Last updated:**

[Learn more](#) about your sending limits.

## Additional Information

[Amazon SES Documentation](#)

[All SES Resources](#)

[Forums](#)

[Contact Us](#)

[Request Increased Sending Limits](#)

## ▼ Your Amazon SES Metrics



User: arn:aws:iam::187632318301:user/jay.patel@tothenew.com is not authorized to perform: ses:GetSendStatistics (Request ID: a78bea30-e8df-46dd-9e53-f85f56662189)

The following charts show the number of emails delivered, as well as the rejection, bounce and complaint rates for your account. These charts display data for the past two weeks, aggregated daily.

You can change the Rejects, Bounces, and Complaints charts to display a number instead of a percentage. You can also click any chart to view it in a larger window,