

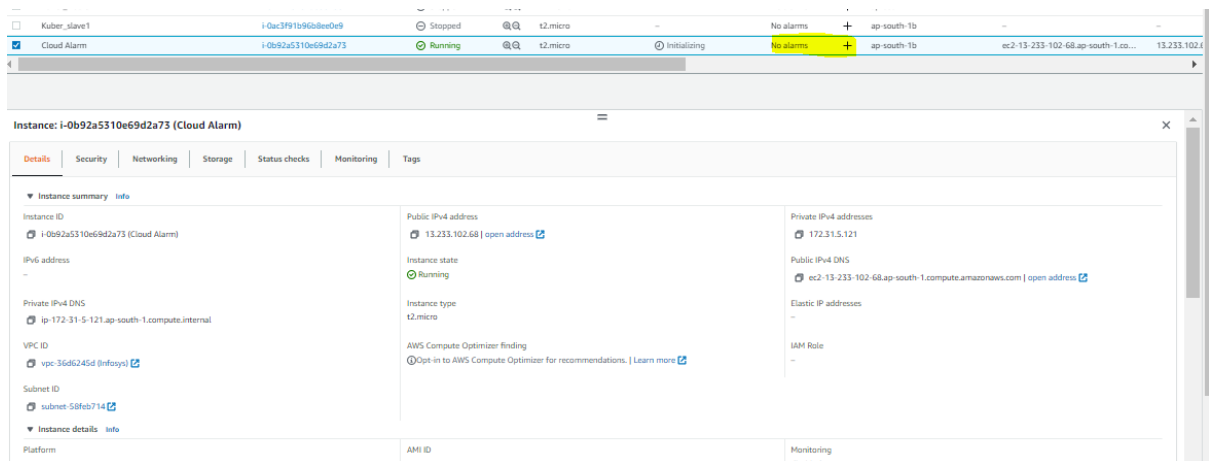
## Cloud Alarm

### Step:1

Create One EC2 instance in Linux AMI and allow SSH port

### Step:2

Click the + icon to create a new alarm or you can also go inside cloud watch alarm section and create a new one.



### Step:3

Create a alarm and create alarm notification and set a thresholds limits.

The screenshot shows the 'Add or edit alarm' form in the AWS CloudWatch console. The form is divided into several sections:

- Add or edit alarm:** Includes a 'Create an alarm' button (highlighted in yellow) and an 'Edit an alarm' button.
- Search for alarm:** A search bar with the placeholder text 'Select an existing alarm to edit'.
- Alarm notification:** A section with a toggle switch (turned on) and a search bar containing 'CpuUtilAlarm' (highlighted in yellow).
- Alarm action:** A section with a toggle switch (turned on) and a dropdown menu for specifying the action to take when the alarm is triggered.
- Alarm thresholds:** A section for specifying the metric thresholds for the alarm. It includes:
  - Group samples by:** A dropdown menu set to 'Maximum' (highlighted in yellow).
  - Type of data to sample:** A dropdown menu set to 'CPU utilization'.
  - Alarm when:** A dropdown menu set to '>=' (highlighted in yellow).
  - Percent:** A text input field set to '90' (highlighted in yellow).
  - Consecutive period:** A text input field set to '1'.
  - Period:** A dropdown menu set to '5 Minutes' (highlighted in yellow).
  - Alarm name:** A text input field containing 'awssec2-i-0b92a5310e69d2a73-GreaterThanOrEqualToThreshold-CPUUtilization'.

## Step 4

Go to Cloud watch console alarm section → Action → Edit add the SNS topic.

## Step:5

Create a SNS topic and create it.

CloudWatch > Alarms > awssec2-i-0b92a5310e69d2a73-GreaterThanOrEqualToThreshold-CPUUtilization > Edit

Step 1  
Specify metric and conditions

Step 2  
**Configure actions**

Step 3  
Add name and description

Step 4  
Preview and create

### Configure actions

#### Notification

Alarm state trigger  
Define the alarm state that will trigger this action.

☒ 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.

Remove

Select an SNS topic  
Define the SNS (Simple Notification Service) topic that will receive the notification.

☐ Select an existing SNS topic

☒ Create new topic

☐ Use topic ARN

Create a new topic...  
The topic name must be unique.

CpuUtil

SNS topic names can contain only alphanumeric characters, hyphens (-) and underscores (\_).

Email endpoints that will receive the notification...  
Add a comma-separated list of email addresses. Each address will be added as a subscription to the topic above.

abhishek1991@gmail.com

user1@example.com, user2@example.com

Create topic

Add notification

#### Auto Scaling action

Add Auto Scaling action

## Step:6

Approve the confirmation mail from AWS and check the status

CloudWatch > Alarms

Alarms (1)

Hide Auto Scaling alarms

Clear selection

Create composite alarm

Actions

Create alarm

Name	State	Last state update	Conditions	Actions
awssec2-i-0b92a5310e69d2a73-GreaterThanOrEqualToThreshold-CPUUtilization	OK	2021-08-10 10:58:29	CPUUtilization >= 90 for 1 datapoints within 5 minutes	1 action(s) enabled <span>Warning</span>

AWS Notification - Subscription Confirmation

to me

11:02 AM (4 minutes ago)

You have chosen to subscribe to the topic:  
arn:aws:sns:ap-south-1:040009532627:CpuUtil

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](#)

Reply Forward

## Step:7

Now the alarm action will change from warning to enable

The screenshot shows the AWS CloudWatch Alarms console. At the top, there's a search bar and filters for 'Any state' and 'Any type'. Below the filters, a table lists the alarms. The first alarm is 'awssec2-i-0b92a5310e69d2a73-GreaterThanOrEqualToThreshold-CPUUtilization', which is in the 'OK' state. The 'Actions' column for this alarm shows a button labeled 'action(s) enabled'.

## Step:8

Raise the Cpu Uti using the following command

yes > /dev/null &

```
[ec2-user@ip-172-31-5-121 ~]$ ls
[ec2-user@ip-172-31-5-121 ~]$ yes > /dev/null &
[1] 3357
[ec2-user@ip-172-31-5-121 ~]$ top
top - 05:42:50 up 22 min, 1 user, load average: 0.22, 0.05, 0.02
Tasks: 88 total, 2 running, 50 sleeping, 0 stopped, 0 zombie
%Cpu(s): 99.3 us, 0.7 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
KiB Mem : 1006892 total, 481924 free, 86372 used, 438596 buff/cache
KiB Swap: 0 total, 0 free, 0 used. 781672 avail Mem

  PID USER      PR  NI   VIRT   RES   SHR  S  %CPU  %MEM     TIME+ COMMAND
 3357 ec2-user    20   0  114636    752   688  R   99.9    0.1   0:18.03 yes
     1 root        20   0  125560    544   3976  S    0.0    0.5   0:02.14 systemd
     2 root        20   0   0         0     0  S    0.0    0.0   0:00.00 kthreadd
```

## Step:9

The alarm will trigger and you will get a notification in mail.



ALARM: "awssec2-i-0b92a5310e69d2a73-GreaterThanOrEqualToThreshold-CPUUtil..." in Asia Pacific (Mumbai) [Inbox](#)



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

11:14 AM (1 minute ago)



You are receiving this email because your Amazon CloudWatch Alarm "awssec2-i-0b92a5310e69d2a73-GreaterThanOrEqualToThreshold-CPUUtilization" in the Asia Pacific (Mumbai) region has entered the ALARM state, because "Threshold Crossed: 1 out of the last 1 datapoints [100.0 (10/08/21 05:39:00)] was greater than or equal to the threshold (90.0) (minimum 1 datapoint for OK -> ALARM transition)." at "Tuesday 10 August, 2021 05:44:58 UTC".

View this alarm in the AWS Management Console:

<https://ap-south-1.console.aws.amazon.com/cloudwatch/deeplink.js?region=ap-south-1#alarmsV2:alarm/awssec2-i-0b92a5310e69d2a73-GreaterThanOrEqualToThreshold-CPUUtilization>

Alarm Details:

- Name: awssec2-i-0b92a5310e69d2a73-GreaterThanOrEqualToThreshold-CPUUtilization
- Description: Created from EC2 Console
- State Change: OK -> ALARM
- Reason for State Change: Threshold Crossed: 1 out of the last 1 datapoints [100.0 (10/08/21 05:39:00)] was greater than or equal to the threshold (90.0) (minimum 1 datapoint for OK -> ALARM transition).
- Timestamp: Tuesday 10 August, 2021 05:44:58 UTC
- AWS Account: 040009532627
- Alarm Arn: arn:aws:cloudwatch:ap-south-1:040009532627:alarm:awssec2-i-0b92a5310e69d2a73-GreaterThanOrEqualToThreshold-CPUUtilization

Threshold:

- The alarm is in the ALARM state when the metric is GreaterThanOrEqualToThreshold 90.0 for 300 seconds.

Step:10

If you kill the uti it come back to normal

