

1) Enable cloudtrail monitoring and store the events in s3 and cloudwatch log events.

S3

```
aws-cloudtrail-logs-211125448409-604c8aea.s3.us-east-1.amazonaws.com/AWSLogs/211125448409/CloudTrail/us-east-1/2025/08/06/211125448409_CloudTrail_us-...

Pretty print

{
  "Records": [
    {
      "eventVersion": "1.11",
      "userIdentity": {
        "type": "Root",
        "principalId": "211125448409",
        "arn": "arn:aws:iam::211125448409:root",
        "accountId": "211125448409",
        "accessKeyId": "ASIATCKA0V3MRWTW7QUY",
        "userName": "network-alias-manjunath",
        "sessionContext": {
          "attributes": {
            "creationDate": "2025-08-06T05:21:07Z",
            "mfaAuthenticated": "true"
          }
        }
      },
      "eventTime": "2025-08-06T10:08:48Z",
      "eventSource": "s3.amazonaws.com",
      "eventName": "PutBucketPublicAccessBlock",
      "awsRegion": "us-east-1",
      "sourceIPAddress": "103.143.169.218",
      "userAgent": "[Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/139.0.0.0 Safari/537.36]",
      "requestParameters": {
        "publicAccessBlock": "",
        "bucketName": "california8008",
        "PublicAccessBlockConfiguration": {
          "xmlns": "http://s3.amazonaws.com/doc/2006-03-01/",
          "RestrictPublicBuckets": false,
          "BlockPublicPolicy": false,
          "BlockPublicAcls": false,
          "IgnorePublicAcls": false
        }
      },
      "Host": "s3.us-east-1.amazonaws.com"
    },
    "responseElements": null,
  ]
}
```

Cloudwatch

The screenshot shows the AWS CloudWatch console. The left sidebar contains navigation options: CloudWatch, Log groups, Log events, Log Anomalies, Live Tail, Logs Insights, Contributor Insights, and Metrics. The main area displays the 'Log events' page for the log group 'eni-07f85e64b1c805717-all'. It includes a search bar, a filter bar, and a table of log events. The table has two columns: 'Timestamp' and 'Message'. The messages are truncated, showing the beginning of each log entry.

Timestamp	Message
2025-07-31T09:33:57.000Z	2 211125448409 eni-07f85e64b1c805717 89.248.163.173 10.0.0.14 53492 56941 6 1 40 1753954437 1753954488 RE...
2025-07-31T09:33:57.000Z	2 211125448409 eni-07f85e64b1c805717 206.168.35.72 10.0.0.14 19381 6005 6 1 60 1753954437 1753954488 REJE...
2025-07-31T09:33:57.000Z	2 211125448409 eni-07f85e64b1c805717 162.159.200.123 10.0.0.14 123 38964 17 1 76 1753954437 1753954488 AC...
2025-07-31T09:33:57.000Z	2 211125448409 eni-07f85e64b1c805717 10.0.0.14 162.159.200.123 38964 123 17 1 76 1753954437 1753954488 AC...
2025-07-31T09:33:57.000Z	2 211125448409 eni-07f85e64b1c805717 18.206.107.29 10.0.0.14 12983 22 6 4 344 1753954437 1753954488 ACCEP...
2025-07-31T09:33:57.000Z	2 211125448409 eni-07f85e64b1c805717 10.0.0.14 18.206.107.29 22 12983 6 2 176 1753954437 1753954488 ACCEP...
2025-07-31T09:33:57.000Z	2 211125448409 eni-07f85e64b1c805717 185.125.190.57 10.0.0.14 123 51443 17 1 76 1753954437 1753954488 ACCEP...

2) Enable SNS for cloudtrial to send alert on email.



## Simple Notification Service

### Subscription confirmed!

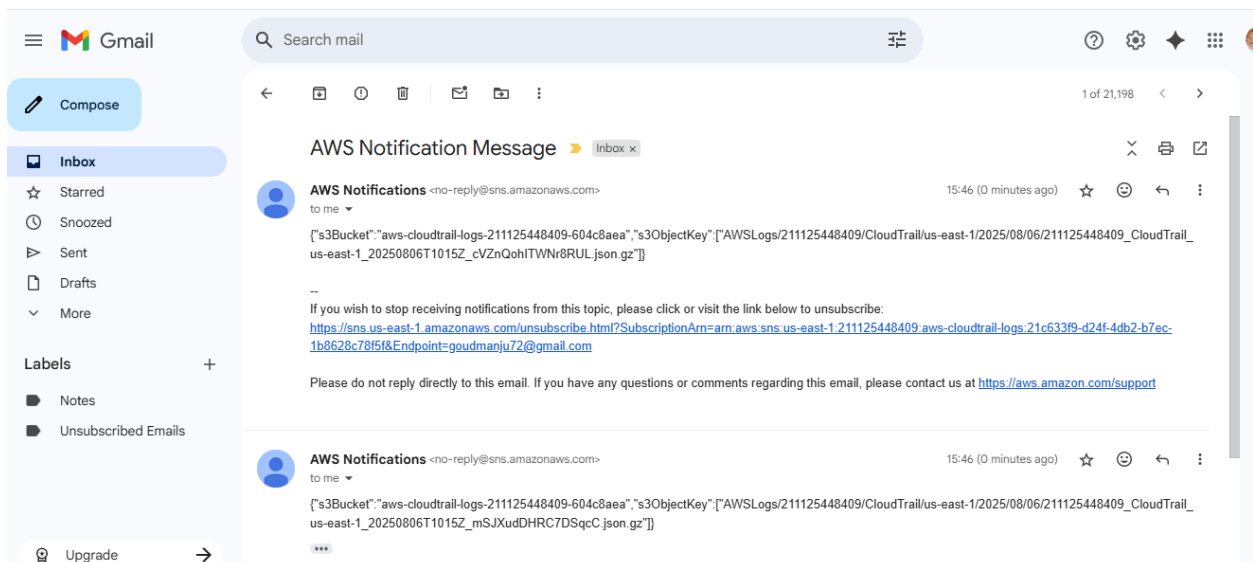
You have successfully subscribed.

Your subscription's id is:

arn:aws:sns:us-east-1:211125448409:aws-cloudtrail-logs:21c633f9-d24f-4db2-b7ec-1b8628c78f5f

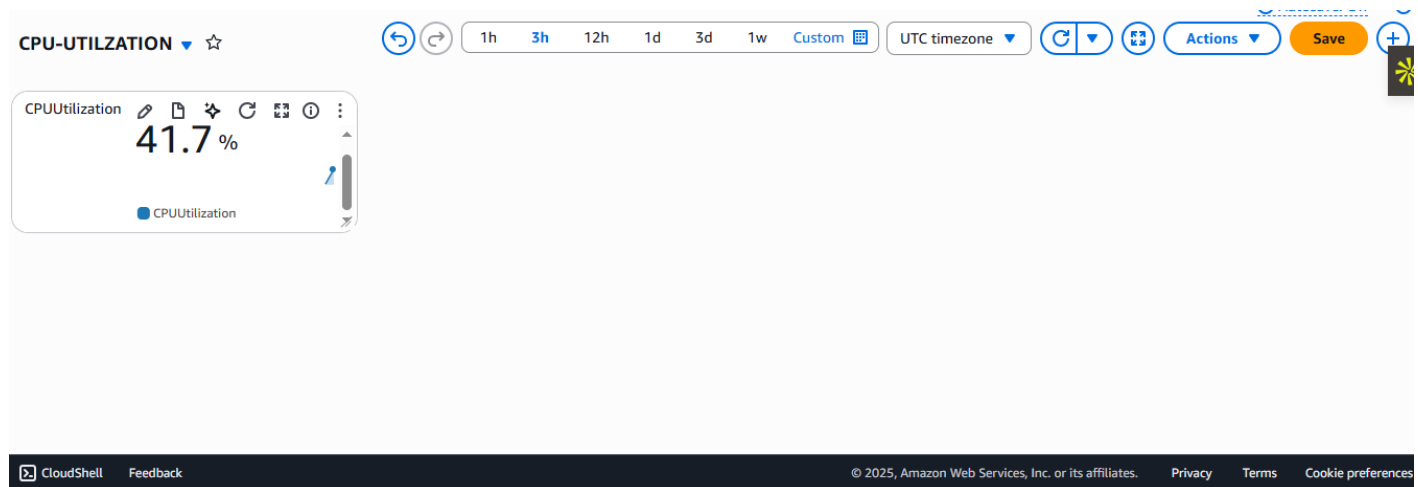
If it was not your intention to subscribe, [click here to unsubscribe](#).

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3) Configure cloud watch monitoring and record the cpu utilization and other metrics of ec2.

```
[ec2-user@ip-172-31-19-32 ~]$  
[ec2-user@ip-172-31-19-32 ~]$ yes > /dev/null & -d  
[9] 26313  
-bash: -d: command not found  
[ec2-user@ip-172-31-19-32 ~]$ yes > /dev/null & -d  
[10] 26315  
-bash: -d: command not found  
[ec2-user@ip-172-31-19-32 ~]$ yes > /dev/null & -d  
[11] 26317  
-bash: -d: command not found  
[ec2-user@ip-172-31-19-32 ~]$ yes > /dev/null & -d  
[12] 26319  
-bash: -d: command not found  
[ec2-user@ip-172-31-19-32 ~]$ yes > /dev/null &  
[13] 26321  
[ec2-user@ip-172-31-19-32 ~]$ yes > /dev/null &  
[14] 26322  
[ec2-user@ip-172-31-19-32 ~]$ yes > /dev/null &  
[15] 26323  
[ec2-user@ip-172-31-19-32 ~]$ yes > /dev/null &  
[16] 26324  
[ec2-user@ip-172-31-19-32 ~]$
```



To create a CPU utilization Dashboard we need to go to cloudwatch Dashboard--->create Dashboard.

4) Create one alarm to send alert to email if the cpu utilization is more than 70 percent.

S3 EC2 Route 53 IAM EFS VPC

CloudWatch > Alarms > Create alarm

### 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.

70

Must be a number.

► Additional configuration

https://us-east-1.console.aws.amazon.com/cloudwatch/home?region=us-east-1#alarmsV2:

CloudWatch > Alarms

Alarms (2)

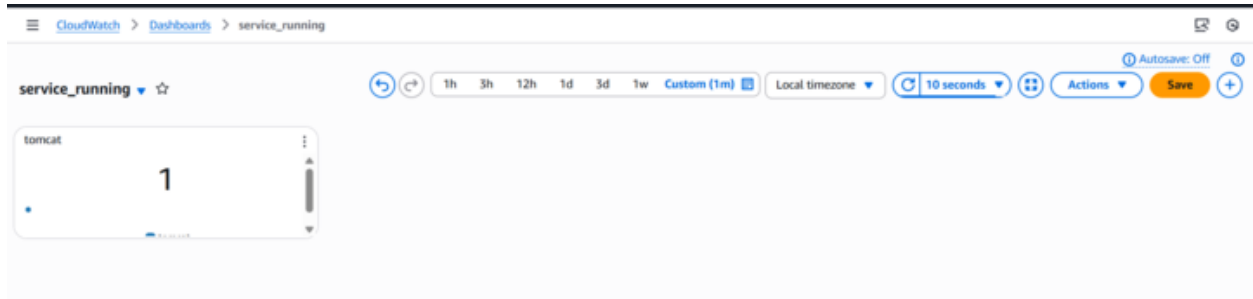
Hide Auto Scaling alarms

Clear selection Create composite alarm Actions

Search Alarm state: Any Alarm type: Any Actions status: Any

<input type="checkbox"/>	Name	State	Last state update (UTC)	Conditions	Actions
<input type="checkbox"/>	cpu-ok	OK	2025-08-06 12:34:30	CPUUtilization ≤ 70 for 1 datapoints within 5 minutes	Action
<input type="checkbox"/>	cpu-alert	In alarm	2025-08-06 12:32:57	CPUUtilization ≥ 70 for 1 datapoints within 5 minutes	Action

5) Create Dashboard and monitor tomcat service whether it is running or not and send the alert.



6) Create Dashboard and monitor nginx service to send the alert if nginx is not running.

