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Feb 17, 2019 · 5 min read · Listen

100 Days of DevOps — Day 7(AWS S3 Event)

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Welcome to Day 7 of 100 Days of DevOps, Let extend the journey of DevOps Monitoring and Alerting with S3 events.

Problem Statement

- *Whenever anyone deletes any object in S3 bucket you will get the notification*

Solution

This can be achieved via in one of the three ways

- *AWS Console*
- *Terraform*

NOTE: This is not the complete list and there are more ways to achieve the same

What is S3 Event?

The Amazon S3 notification feature enables you to receive notifications when PUT, POST, COPY or DELETE then the event is generated and that event will be delivered to the target(SNS, SQS or LAMBDA)

To Configure S3 events

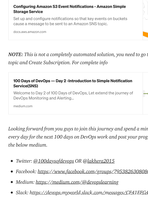
- *First, go to the SNS topic https://us-west-2.console.aws.amazon.com/sns/v2/home?region=us-west-2#/home*
- *Click on Topics —> Actions —> Edit topic policy*

- *Paste this join policy(We still need permission on SNS topic to allow S3 event (pattern to deliver events to s)*

```
{
  "Effect": "Allow",
  "Principal": {
    "AWS": "*"
  },
  "Action": "SNS:Publish",
  "Resource": "arn:aws:sns:us-west-2:000000123456:alarms-topic",
  "Condition": {
    "ArnLike": {
      "aws:SourceArn": "arn:aws:s3:::s3-clusterfuck-bucket-with-hotstuffin-code"
    }
  }
}
```

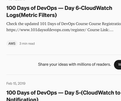
sns_policy hosted with ❤ by GitHub — view raw

- *Go to S3 console https://s3.console.aws.amazon.com/s3/home?region=us-east-1*
- *Your bucket —> Properties —> Events*




```
# Give your event a name
# Event type I want to get a notification is (All object delete
events)i.e I want to recieve notification when object is deleted from
s3 bucket
# Send to SNS Topic
# SNS(Choose the SNS topic you created earlier)
```

For more info about SNS



- *Now if you try to delete an object from the bucket*

NOTE: *Delivery of these events happens in almost real time with no cost involved.*

Terraform Code

```
1  provider "aws" {
2    region = "us-east-2"
3  }
4  resource "aws_sns_topic" "topic" {
5    name = "s3-event-notification-topic"
6  }
7  policy = <<POLICY
8  {
9    "Version":"2012-10-17",
10   "Statement":[
11     "Effect": "Allow",
12     "Principal": {"AWS":"*"},
13     "Action": "SNS:Publish",
14     "Resource": "arn:aws:sns:*:*:s3-event-notification-topic",
15     "Condition":{
16       "ArnLike":{"aws:SourceArn":"${aws_s3_bucket.bucket.arn}"}
17     }
18   }]
19 }
20 POLICY
21
22 resource "aws_s3_bucket" "bucket" {
23   bucket = "s3-event-notification-topic-mybbms-bucket"
24
25 }
26 resource "aws_s3_bucket_notification" "bucket_notification" {
27   bucket = "${aws_s3_bucket.bucket.id}"
28
29   topic {
30     topic_arn  = "${aws_sns_topic.topic.arn}"
31     events     = ["s3:ObjectRemoved:*"]
32   }
33 }
```

s3_bucket_sns_sns_terraform hosted with ❤ by GitHub — view raw

GitHub link

For more info about supported events type

NOTE: *This is not a completely automated solution, you need to go to a particular topic and Create Subscription. For complete info*

Looking forward from you guys to join this journey and spend a minimum an hour every day for the next 100 days on DevOps and post your progress using any of the below medium.

- *Twitter: @100daysofdevops OR @lakhera2015*
- *Facebook: https://www.facebook.com/groups/1795382630080643/*
- *Medium: https://medium.com/@devopsjourney*
- *Slack URL: https://devops.myworld.slack.com/messages/CF61FFQF6/*
- *GitHub Link https://github.com/100daysofdevops*

Reference

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