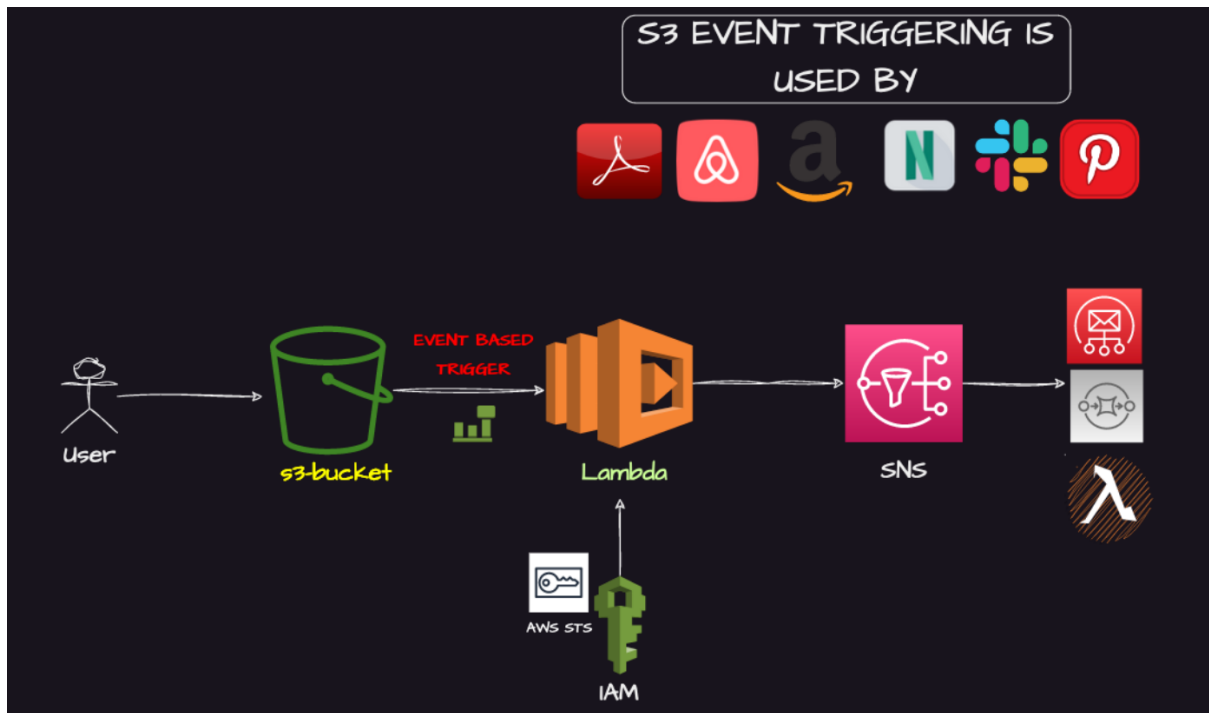


S3 EVENT triggering



Pre-requisite :

1. AWS account

Task required/Goal:

[AWS Lambda](#) Event Notifications allow you to receive notifications when certain events happen in your Amazon S3 bucket. S3 Event Notifications can be used to initiate the Lambda functions, SQS queues, and other AWS services. The benefit of using S3 Event

Notifications is that it allows you to automate tasks and processes that would otherwise need to be done manually, improving efficiency and reducing errors.

This doc will cover how a lambda function gets invoked when an object is

uploaded in an S3. Before seeing the practical implementation of how to use an Amazon S3 trigger to invoke a lambda function.

☑ Successfully created the function **my-test-lambda**. You can now change its code and configuration. To invoke your function with a test event, choose "Test".

Lambda > Functions > my-test-lambda

my-test-lambda

ThrottleCopy ARNActions

▼ Function overviewInfo

Export to Application ComposerDownload ▼

DiagramTemplate

my-test-lambda

Layers(0)

+ Add trigger+ Add destination

Description-

Last modified12 seconds ago

Function ARNarn:aws:lambda:ap-south-1:876330032031:lambda:my-test-lambda

☑ Successfully created the function **my-test-lambda**. You can now change its code and configuration. To invoke your function with a test event, choose "Test".

Code sourceInfo

Upload from ▼

FileEditFindViewGoToolsWindowTestDeployChanges not deployed

Go to Anything (Ctrl-P)

my-test-lambda / lambda_function.py

1import json

2import urllib.parse

3import boto3

4

5print('Loading function')

6

7s3 = boto3.client('s3')

8sns = boto3.client('sns')

9

10def lambda_handler(event, context):

11 #print("Received event: " + json.dumps(event, indent=2))

12

13 # Get the object, Key and eventName from the event and show its content type

14 bucket = event['Records'][0]['s3']['bucket']['name']

15 key = event['Records'][0]['s3']['object']['key']

16 eventname = event['Records'][0]['eventName']

17 sns_message = str("This Email Represent a File Status has been Changed in One of Your Bucket \n\n BUCKET NAME: "+ bucket)

18 try:

19

20

☑ Successfully created bucket "my-lambda-bucket23"

View details

To upload files and folders, or to configure additional bucket settings, choose [View details](#).

You can enable advanced metrics in the "default-account-dashboard" configuration.

General purpose buckets

Directory buckets

General purpose buckets (1) Info

🔄

📄 Copy ARN

Empty

Delete

Create bucket

Buckets are containers for data stored in S3.

🔍 Find buckets by name

< 1 > ⚙

	Name	AWS Region	Access	Creation date
○	my-lambda-bucket23	Asia Pacific (Mumbai) ap-south-1	Bucket and objects not public	February 29, 2024, 18:32:16 (UTC+05:30)

[Lambda](#) > Add trigger

Add trigger

Trigger configuration Info

 S3

aws asynchronous storage

Bucket

Choose or enter the ARN of an S3 bucket that serves as the event source. The bucket must be in the same region as the function.

🔍 s3/my-lambda-bucket23

✕

🔄

Bucket region: ap-south-1

key.

All object create events ✕

Add destination

Destination configuration [Info](#)

Configure a destination to receive invocation records. Lambda can send records when your function is invoked asynchronously, or when your function processes records from an event source mapping.

Source

Choose the invocation type that Lambda sends records for.

- ☒ Asynchronous invocation
- ☐ Event source mapping invocation

Condition

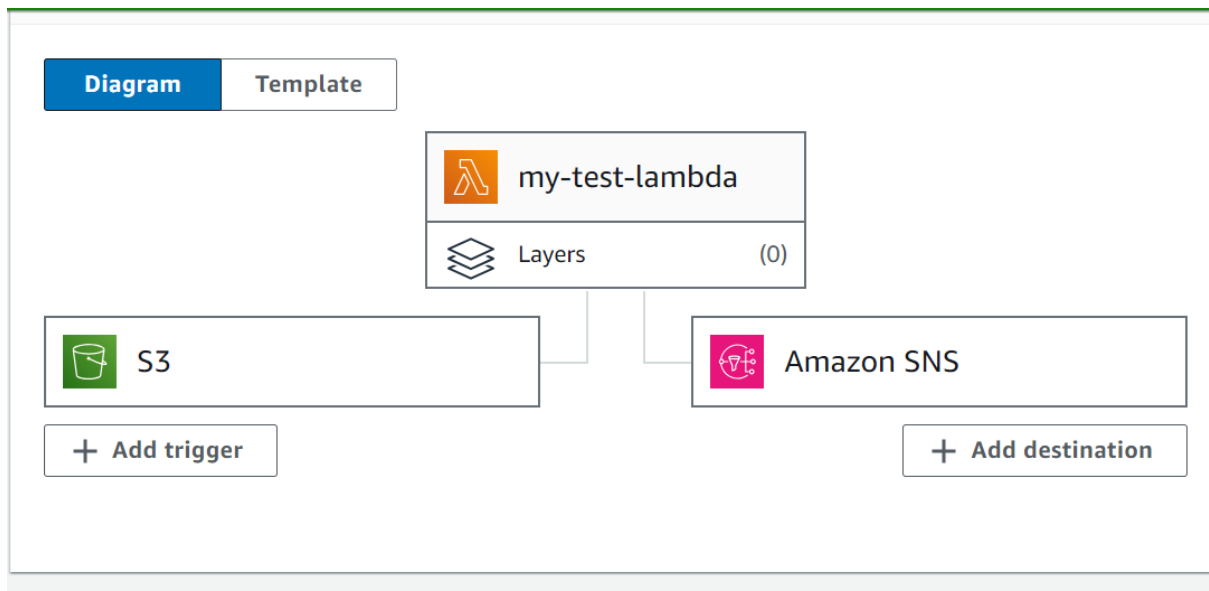
Choose whether to send invocation records for event processing failures or for successful invocations.

- ☐ On failure
- ☒ On success

Destination type

Choose the destination type that Lambda sends invocation records to.

SNS topic



Test:

Try uploading any file to s3 bucket and you'll get the notification on your email regarding it:

VPC

EC2

S3

☑ Upload succeeded

View details below.

Destination

s3://my-lambda-bucket23

Succeeded

☑ 1 file, 1.6 KB (100.00%)

Files and folders

Configuration

Files and folders (1 Total, 1.6 KB)

🔍 Find by name

Name	Folder	Type	Size	Status	E
new_VM_Ke...	-	-	1.6 KB	☑ Succeeded	-

Primary

Promotions 50 new

Social 14 new

test

AWS Notification Message - {"version":"1.0","timestamp":"2024-02-29T13:16:39.380Z","requestContext":{"req... 6:46 PM

←

📁

🕒

🗑

✉

🕒

🔄

📁

📄

⋮

1 of 18,088

<

>

AWS Notification Message

Inbox x

test <no-reply@sns.amazonaws.com>

6:46 PM (0 minutes ago)

☆

😊

⋮

to me

```
{
  "version": "1.0",
  "timestamp": "2024-02-29T13:16:39.380Z",
  "requestContext": {
    "requestId": "3191886f-8fa0-49d2-85b7-f14bbd21f254",
    "functionArn": "arn:aws:lambda:ap-south-1:876330032038:function:my-test-lambda:$LATEST",
    "condition": "Success",
    "approximateInvokeCount": 1,
    "requestPayload": {
      "Records": [
        {
          "eventVersion": "2.1",
          "eventSource": "aws:s3",
          "awsRegion": "ap-south-1",
          "eventTime": "2024-02-29T13:16:37.901Z",
          "eventName": "ObjectCreated:Put",
          "userIdentity": {
            "principalId": "AWS:AIDA4YCKXDOTPAZO7HB7I",
            "requestParameters": {
              "sourceIPAddress": "176.227.240.19",
              "responseElements": {
                "x-amz-request-id": "43AH3PNPVW8B42A",
                "x-amz-id-2": "gIUODuRVfyP9wBbFuMitA8XeLdOMINxEazGHhLBXOGk6HwdVx/d6ZowtbjuXPFVBLdLQyZrgxsuk6Fo0vRWJC7bpnaXQ2OmcgbEwS4ux5g="
              },
              "s3": {
                "s3SchemaVersion": "1.0",
                "configurationId": "84ee1eb2-4e1a-4687-8dfd-bd1bea822a9c",
                "bucket": {
                  "name": "my-lambda-bucket23",
                  "ownerIdentity": {
                    "principalId": "A3J2EX55S8OX8K",
                    "arn": "arn:aws:s3:::my-lambda-bucket23"
                  },
                  "object": {
                    "key": "new_VM_Key.pem",
                    "size": 1674,
                    "eTag": "fa8350793689ae6444495dae3236efcdc",
                    "sequencer": "0065E083B5DA8BF485"
                  }
                }
              }
            }
          },
          "responseContext": {
            "statusCode": 200,
            "executedVersion": "$LATEST",
            "responsePayload": {
              "statusCode": 200,
              "body": "\nHello from Lambda!"
            }
          }
        }
      ]
    }
  }
}
```

--

If you wish to stop receiving notifications from this topic, please click or visit the link below to unsubscribe:
<https://sns.ap-south-1.amazonaws.com/unsubscribe.html?SubscriptionArn=arn:aws:sns:ap-south-1:876330032038:test-topic:d7fd1be1-39c3-4dcc-b566-9371518fb7c8&Endpoint=swatikadam5417@gmail.com>

Please do not reply directly to this email. If you have any questions or comments regarding this email, please contact us at <https://aws.amazon.com/support>

So this project is successful.

