PROJECT

AGENDA

Project Description

Images of Steps

Explanation of processes

PRACTICAL DESCRIPTION

- I was tasked to create S3 event notifications using an SNS Topic on the AWS Management console. In this practical, I learnt how to create S3 buckets and also learnt how to create topics and event notifications.

IMAGES OF THE PROCESS

Creating Event Notifications in S3

OBJECTIVE OF THE PROJECT

- To **configure Amazon S3 to automatically send notifications to an SNS Topic** whenever certain events (like file uploads or deletions) occur in an S3 bucket. This enables **real-time alerting or triggering of downstream actions** in a scalable, decoupled, and serverless manner.

SERVICES INTEGRATED

S3

SQS

SNS

S3 FUNCTIONALITY

Amazon S3 (Simple Storage Service) provides **scalable object storage** for any type of data. In this project, its functionality includes:

1) **Storage**: Securely stores files such as documents, images, videos, backups, etc.

2) **Event Notification**: Detects specific actions (e.g., file uploads, deletions) and **generates events**.

SQS FUNCTIONALITY

Amazon SQS (Simple Queue Service) is a **fully managed message queuing service** that enables decoupling and buffering of communication between different parts of a system.

1) **Message Queueing**: Receives and stores messages sent by other services (like S3 or SNS) until they are processed.

SNS FUNCTIONALITY

Message Distributor

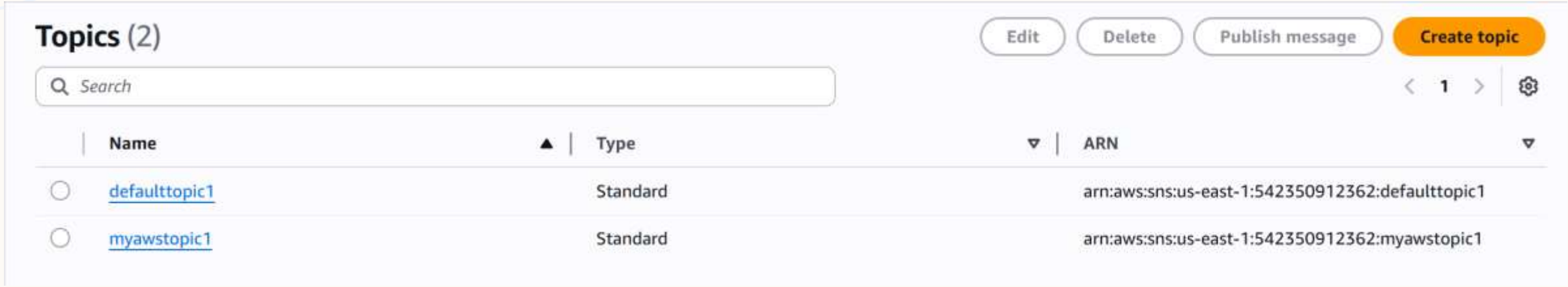
Acts as a **central hub** that receives messages from sources like **S3** and **distributes** them to multiple destinations (subscribers).

2) **Supports Multiple Subscribers**

SNS can send messages to:

- Email addresses (email notifications)
- SMS (text messages)
- AWS Lambda functions
- Amazon SQS queues
- HTTP/S endpoints

STEP 1: CREATE A TOPIC



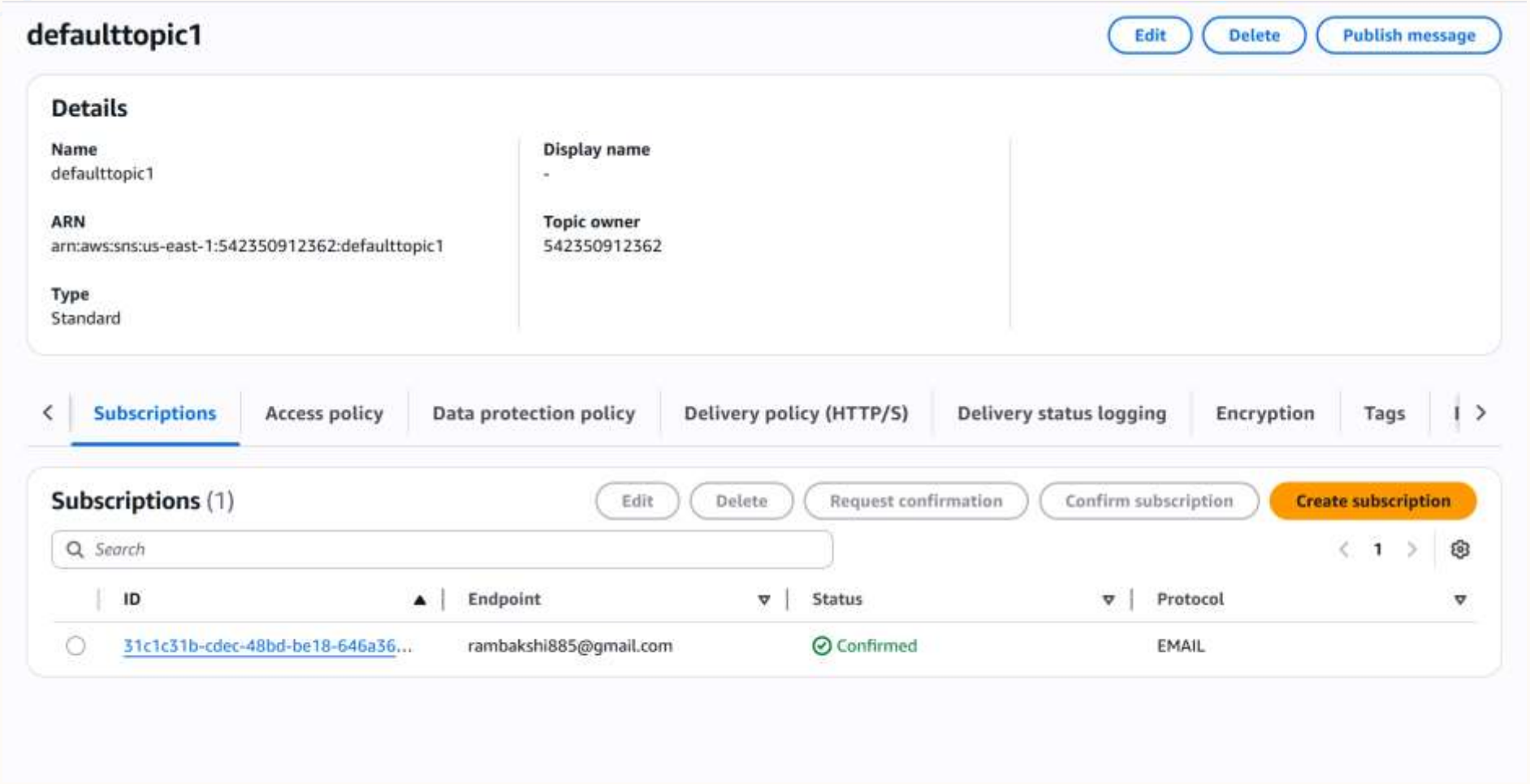
EXPLANATION ON HOW TO CREATE A TOPIC

Step 1: Navigate to the SNS Service in the AWS Management Console

Step 2: Click on topic, and then create a topic

Step 3: Choose a topic type and give it a name and create it

STEP 2: CREATE A SUBSCRIPTION

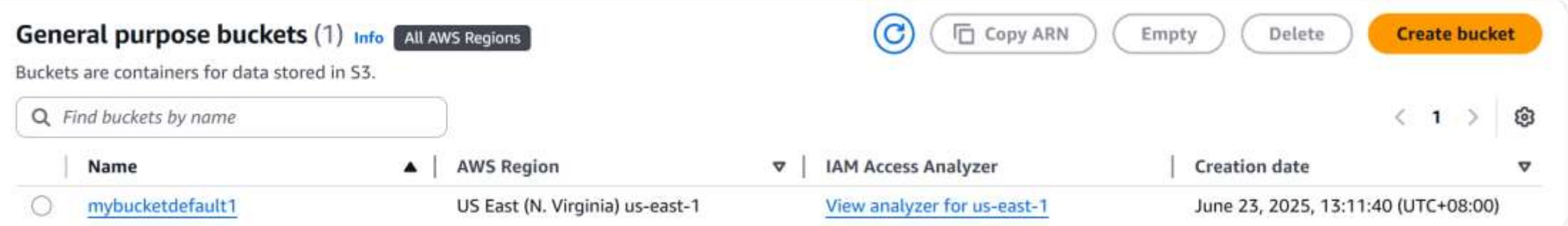


STEP 3: CONFIRM SUBSCRIPTION

STEPS TO CREATE A SUBSCRIPTION

- Step 1: Create a subscription
- Step 2: Select email for protocol
- Step 3: Enter an email address for the endpoint
- Step 4: Create a subscription
- Step 5: Go to your inbox and confirm the subscription + refresh the page so that the status shows “confirmed”
- Step 6: Navigate back to the topic, click on edit and edit the access policy to replace the default policy with that in the guide and make the necessary changes to the ARN components

STEP 4: CREATE AN S3 BUCKET



CONTINUED: S3 NOTIFICATIONS

- Step 1: Go to the events notification section of the S3 Bucket
- Create an event notification
- Give the event a name and then select all object create events
- Select SNS Topic for the destination and then select the pre existing SNS Topic
- When you upload something in the bucket, you should receive an email notification from AWS.