EXCELSOFT

REPOSYNC AUTOMATION

Submitted by Excelsoft Technology

Version	Date	Author
1.0	17-Apr-2025	Sandesh Gowda P

Overview

This document outlines the automation setup to monitor and alert changes (file uploads) in AWS S3 and Azure Blob Storage, thereby reducing manual intervention and improving visibility.

Objective: Eliminate manual checks and automate weekly reporting/alerts when new objects are created in designated paths or folders in storage buckets/containers.

AWS – Approach 1: Event-Based Alerting

a. Setup SNS & Subscription

- Create an **SNS Topic** (e.g., RepoSyncTopic).

- Add **Email Subscription** to notify users.

- Confirm the subscription via email.

b. Configure SNS Access Policy

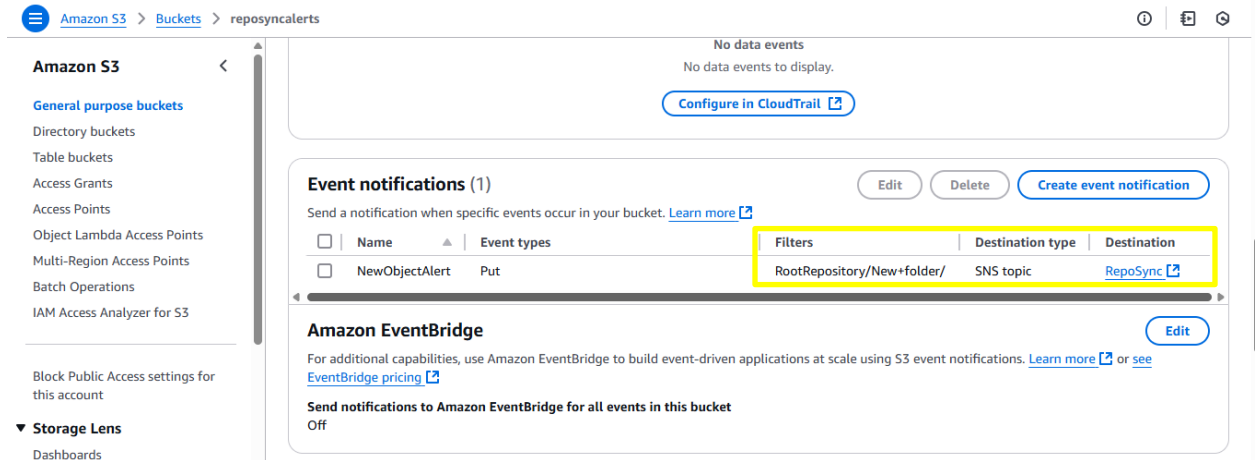Grant permission for S3 to publish to the SNS topic:

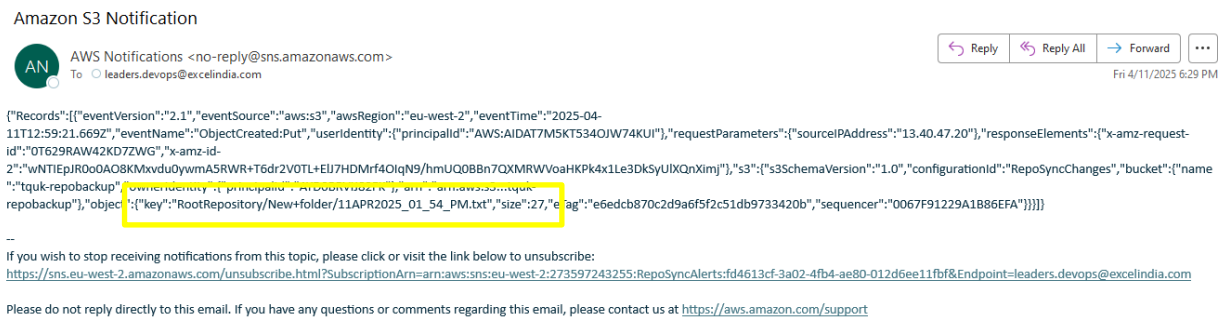SNSAccessPolicy.jso
n

c. Setup Event Alerts in S3

- Go to **S3 Bucket → Properties → Event Notifications**

- Create a new event notification:

  - o Event name: NewObjectAlert.

  - o Event types: PUT (Object Created).

  - o Prefix: Set to desired folder path (e.g., FolderName/).

  - o Destination: SNS Topic

- Please find the attached screenshot for reference.

- Destination – Name of the SNS topic.

d. Alerts Sample Screenshot

{"Records":[{"eventVersion":"2.1","eventSource":"aws:s3","awsRegion":"eu-west-2","eventTime":"2025-04-11T12:59:21.669Z","eventName":"ObjectCreated:Put","userIdentity":{"principalId":"AWS:AIDAT7M5KT534OJW74KUI"},"requestParameters":{"sourceIPAddress":"13.40.47.20"},"responseElements":{"x-amz-request-id":"0T629RAW42KD7ZWG","x-amz-id-2":"wNTIEpJR0o0AO8KMxvdu0ywmA5RWR+T6dr2V0TL+ElJ7HDMrf4OIqN9/hmUQ0BBn7QXMRWVoaHKPk4x1Le3DkSyUlXQnXimj"},"s3":{"s3SchemaVersion":"1.0","configurationId":"RepoSyncChanges","bucket":{"name":"tquk-repobackup","ownerIdentity":{"principalId":"A1D0BRVJBZFK"},"arn":"arn:aws:s3:::tquk-repobackup"},"object":{"key":"RootRepository/New+folder/11APR2025_01_54_PM.txt","size":27,"eTag":"e6edcb870c2d9a6f5f2c51db9733420b","sequencer":"0067F91229A1B86EFA"}}}]}

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AWS – Approach 2: Scheduled Sync & Report

a. Setup RepoSync Job in Windows Server

- Scheduled task to **create a change-tracker file** (e.g., weekly change list).

- Output format: .txt in local directory.

- Refer to **CreateChange** folder in the zip file attached which contains the appropriate scripts to achieve this step.

b. RepoSync to S3 (Skip if already configured)

- Configure RepoSync to s3://your-bucket/reports/ using CLI.

- Use standard RepoSync.bat file for syncing repository.

c. Setup Task Scheduler with GetS3Objects.ps1

- PowerShell script lists objects from S3 folder.

- Formats HTML email & sends it via SMTP.

- Configure to run weekly via **Task Scheduler.**

- Refer to **S3** folder in the zip file attached which contains the appropriate scripts to achieve this step.

Azure – Scheduled Sync & Report

a. Setup RepoSync Job in Windows Server

- Scheduled task to **create a change-tracker file** (e.g., weekly change list)

- Output format: .txt in local directory.

- Refer to **CreateChange** folder in the zip file attached which contains the appropriate scripts to achieve this step.

b. RepoSync to Azure Blob Container (Skip if already configured)

- Configure RepoSync to Azure blob.

- Use standard RepoSync.bat file for syncing repository.

c. Setup Task Scheduler with GetContainerObjects.ps1

- PowerShell script filters objects in given **virtual directory path.**

- Sends structured email report using SMTP in **HTML format.**

- Use Task Scheduler to run weekly.

- Refer to **Blob** folder in the zip file attached which contains the appropriate scripts to achieve this step.