

1. The Docker creation, ECR, Amazon ECS cluster, task definition and AWS Fargate service definition is done in earlier paper. Here only the steps for creating AWS CloudFormation tasks are defined.
2. AWS S3 creation with bucket

Amazon S3 > Buckets > cloudfromationtemplate-adadabxy-023323-adfs

cloudfromationtemplate-adadabxy-023323-adfs [Info](#)

[Objects](#) | [Properties](#) | [Permissions](#) | [Metrics](#) | [Management](#) | [Access Points](#)

Objects (1) [Info](#)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

<input type="checkbox"/>	Name	Type	Last modified	Size
<input type="checkbox"/>	ecs-service.yaml	yaml	September 21, 2024, 11:43:44 (UTC+01:00)	2.3 KB

3. AWS Lambda creation
4. AWS IAM roles

Summary

Creation date September 21, 2024, 12:52 (UTC+01:00)	ARN arn:aws:iam::820242904343:role/service-role/LambdaCloudF
Last activity 4 hours ago	Maximum session duration 1 hour

[Permissions](#) | [Trust relationships](#) | [Tags](#) | [Access Advisor](#) | [Revoke sessions](#)

Permissions policies (6) [Info](#)

You can attach up to 10 managed policies.

Filter by Type All types

<input type="checkbox"/>	Policy name	Type	Attached entities
<input type="checkbox"/>	AmazonS3FullAccess	AWS managed	2
<input type="checkbox"/>	AmazonS3ReadOnlyAccess	AWS managed	4
<input type="checkbox"/>	AWSCloudFormationFullAccess	AWS managed	3
<input type="checkbox"/>	AWSLambdaBasicExecutionRole-6c5f2f81-6294-401b-8663-...	Customer managed	1
<input type="checkbox"/>	CloudFormationInlinePolicy	Customer inline	0
<input type="checkbox"/>	S3RolePolicy	Customer inline	0

5. AWS EventBridge Schedule

Add EventBridge schedule for Start

Occurrence [Info](#)

You can define an one-time or recurrent schedule.

☐ One-time schedule

☒ Recurring schedule

Time zone

The time zone for the schedule.

(UTC+01:00) Europe/London

Schedule type

Choose the schedule type that best meets your needs.

☒ Cron-based schedule



A schedule set using a cron expression that runs at a specific time, such as 8:00 a.m. PST on the first Monday of every month.

☐ Rate-based schedule

A schedule that runs at a regular rate, such as every 10 minutes.

Cron expression [Info](#)

Define the cron expression for the schedule

 Copy  Clear

cron ()

Minutes Hours Day of month Month Day of the week Year

Next 10 trigger dates

Date and time are displayed in your current time zone in UTC format, e.g. "Wed, Nov 9, 2022 09:00 (UTC - 08:00)" for Pacific time

Sun, 22 Sep 2024 08:00:00 (UTC+01:00)
Mon, 23 Sep 2024 08:00:00 (UTC+01:00)
Tue, 24 Sep 2024 08:00:00 (UTC+01:00)
Wed, 25 Sep 2024 08:00:00 (UTC+01:00)
Thu, 26 Sep 2024 08:00:00 (UTC+01:00)
Sun, 29 Sep 2024 08:00:00 (UTC+01:00)
Mon, 30 Sep 2024 08:00:00 (UTC+01:00)
Tue, 01 Oct 2024 08:00:00 (UTC+01:00)
Wed, 02 Oct 2024 08:00:00 (UTC+01:00)

6. Add Stop schedule for Amazon EventBridge schedule

Occurrence

Info

You can define an one-time or recurrent schedule.

☐ One-time schedule

☒ Recurring schedule

Time zone

The time zone for the schedule.

(UTC+01:00) Europe/London

Schedule type

Choose the schedule type that best meets your needs.

☒ Cron-based schedule

A schedule set using a cron expression that runs at a specific time, such as 8:00 a.m. PST on the first Monday of every month.

☐ Rate-based schedule

A schedule that runs at a regular rate, such as every 10 minutes.

Cron expression

Info

Define the cron expression for the schedule

Copy

Clear

cron (

30

17

?

*

1-5

2024

)

Minutes

Hours

Day of month

Month

Day of the week

Year

Next 10 trigger dates

Date and time are displayed in your current time zone in UTC format, e.g. "Wed, Nov 9, 2022 09:00 (UTC - 08:00)" for Pacific time

Thu, 19 Sep 2024 17:30:00 (UTC+01:00)

Sun, 22 Sep 2024 17:30:00 (UTC+01:00)

Mon, 23 Sep 2024 17:30:00 (UTC+01:00)

Tue, 24 Sep 2024 17:30:00 (UTC+01:00)

Wed, 25 Sep 2024 17:30:00 (UTC+01:00)

Thu, 26 Sep 2024 17:30:00 (UTC+01:00)

Sun, 29 Sep 2024 17:30:00 (UTC+01:00)

Mon, 30 Sep 2024 17:30:00 (UTC+01:00)

Tue, 01 Oct 2024 17:30:00 (UTC+01:00)

Wed, 02 Oct 2024 17:30:00 (UTC+01:00)

7. The Payload for passing the values for Amazon EventBridge schedule

Lambda function

CloudFormationScheduler

↺

↻

Create new Lambda function

Configure version/alias

Payload

The JSON that you want to provide to your Lambda function as input. For example, --payload '{ key: value }'. [Learn more](#)

1

{

2

"environment": {

3

"variables": {

4

"environment": "dev",

5

"exclusionList": "item1,item2,item3",

6

"clusterName": "ReportFargateSpotCluster2",

7

"action": "Start"

8

}

9

}

10

}

6. Amazon ECS Service creation through AWS Cloudformation stack

CFHelloServiceUAT

DeleteUpdateStack actions▼Create stack▼

Stack infoEventsResourcesOutputsParametersTemplateChange setsGit sync

Events (3)

Detect root cause

Search events

Timestamp	Logical ID	Status	Detailed status	Status reason
2024-09-23 20:43:04 UTC+0100	ECSService	CREATE_IN_PROGRESS	-	Resource creation Initiated
2024-09-23 20:43:02 UTC+0100	ECSService	CREATE_IN_PROGRESS	-	-
2024-09-23 20:42:59 UTC+0100	CFHelloServiceUAT	CREATE_IN_PROGRESS	-	User Initiated

ServicesTasksInfrastructureMetricsScheduled tasksTags

Services (1) info

Manage tagsUpdateDelete serviceCreate

Filter services by value

Filter launch typeAny launch type

Filter service typeAny service type

< 1 >

Service name	ARN	Status	Service t...	Deployments and tasks	Last deploy...	Task de...
HelloServiceUAT	arn:aws:ecs:us-east-1:820242904...	Active	REPLICA	1/1 Tasks running	In progress	HelloServic...

CFHelloServiceUAT

DeleteUpdateStack actions▼Create stack▼

Stack infoEventsResourcesOutputsParametersTemplateChange setsGit sync

Events (6)

Detect root cause

Search events

Timestamp	Logical ID	Status	Detailed status	Status reason
2024-09-23 20:45:03 UTC+0100	ECSService	DELETE_IN_PROGRESS	-	-

ServicesTasksInfrastructureMetricsScheduled tasksTags

Tasks (2)

Manage tagsStopRun new task

Filter tasks by property or value

Filter desired statusStopped

Filter launch typeAny launch type

< 1 >

Task	Last status	Desired st...	Task definition	Health sta...	Started at	Container in
9f7f6d8ec9c94e09b38c3e60e4be8a55	Deprovisioning	Stopped	HelloServiceFargate:2	Unknown	1 minute ago	-
adea26a987024845bd949e4e75539835	Stopped Essential container in task exited	Stopped	HelloServiceFargate:2	Unknown	3 minutes ago	-