Guidance for Media2Cloud on AWS

This architecture diagram shows how you can extract key details from your media files in your AWS accounts. This slide shows details on steps 1-8. For more on steps 9-13, go to the next slide.

1. An Amazon Cognito user pool to provide a user directory.
2. An Amazon API Gateway RESTful API endpoint, which is configured to use AWS Identity and Access Management (IAM) authentication.
3. An Amazon CloudFront distribution that hosts the web application artifacts, such as minimized JavaScript files and graphics stored in the web bucket.
4. An AWS Step Functions main state machine which serves as the entry point to the backend ingestion and analysis workflows.
5. An Amazon S3 web bucket to store artifacts generated during the ingestion and analysis processes, such as overall status, pointers to where intermediate files are stored, and state machine run tokens.
6. An Amazon OpenSearch Service cluster, which stores ingestion attributes and machine learning metadata, and facilitates your search and discovery needs.
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Steps 9-13

1. Users
2. Amazon Cognito
3. Amazon API Gateway
4. AWS Step Functions main state machine
5. AWS Step Functions ingest workflow
6. AWS Step Functions analysis workflow
7. Amazon DynamoDB
8. Amazon OpenSearch Service
9. Amazon S3
10. Amazon CloudWatch
11. Amazon EventBridge
12. AWS IoT Core
13. Amazon SNS

Media services and media, image, and documentation tools:
- AWS Elemental MediaConvert
- Open-source tools

AI/ML services:
- Amazon Rekognition
- Amazon Comprehend
- Amazon Transcribe
- Amazon Textract

Datastore services:
- Amazon DynamoDB
- Amazon OpenSearch Service

Notification services:
- AWS IoT Core
- Amazon SNS

Storage services:
- Amazon S3 web bucket
- Amazon S3 proxy bucket
- Amazon S3 ingest bucket
- Amazon S3 logs bucket

Events services:
- Amazon CloudWatch

Integration:
- optional downstream process

Four Amazon Simple Storage Service (Amazon S3) buckets store:
- uploaded content
- file proxies that the Guidance generates during ingestion
- static web application artifacts
- access logs for services used

Amazon CloudWatch event rules that are logged when specific tasks undergo state changes.

Amazon EventBridge used by an internal queue management system where the backlog system notifies workflows (state machines) when a queued artificial intelligence and machine learning (AI/ML) request has been processed.

An AWS IoT Core topic that allows the ingestion and analysis workflows to communicate with the front-end web application asynchronously through publish or subscribe MQTT messaging.

Amazon Simple Notification Service (Amazon SNS) topics to allow Amazon Rekognition to publish job status in the video analysis workflow, and to support custom integration with your system.