AWS re:Invent

NOV. 29 – DEC. 3, 2021 | LAS VEGAS, NV

AIM315

Boost the value of your media content with ML-powered search

Alexandria Burkleaux
Software Development Engineer
Amazon Web Services

Dr. Andrew Kane
Chief Principal Architect for AI Language Services
AI/ML Specialist Solution Architecture
Amazon Web Services

aws

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.



SearchFlix

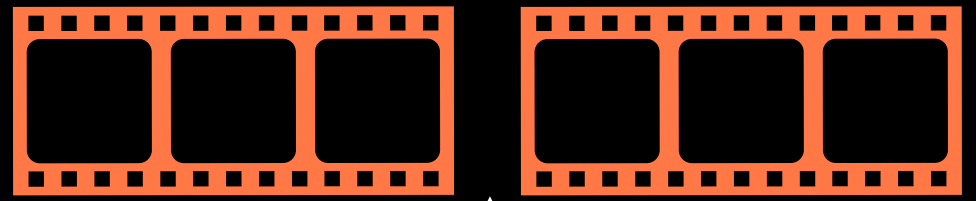
aws

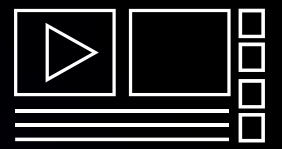
© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Search interfaces

1. What did Lucy say to John Wayne?

Context aware ad insertion

2. 



Translation and captioning

3. Welcome to re:Invent!

¡Bienvenido a reinventar!

欢迎重新发明！

Bienvenue à réinventer !

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

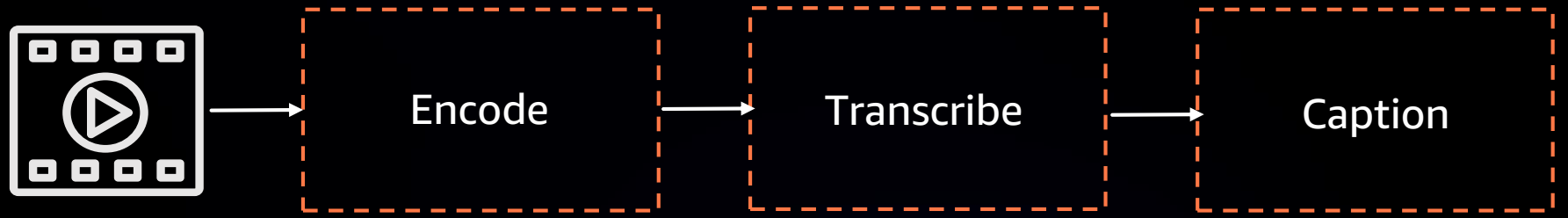


MEDIA INSIGHTS ENGINE

(M I E)

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Machine learning can be difficult to use…



© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Why?



Amazon Rekognition



Amazon Simple Storage Service (Amazon S3)



Amazon Kinesis Data Streams



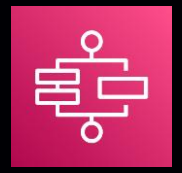
Amazon Translate



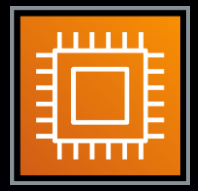
Amazon Comprehend



Amazon Transcribe



AWS Step Functions



Compute



Amazon Kinesis Data Firehose



Amazon Managed Streaming for Apache Kafka



Amazon Polly



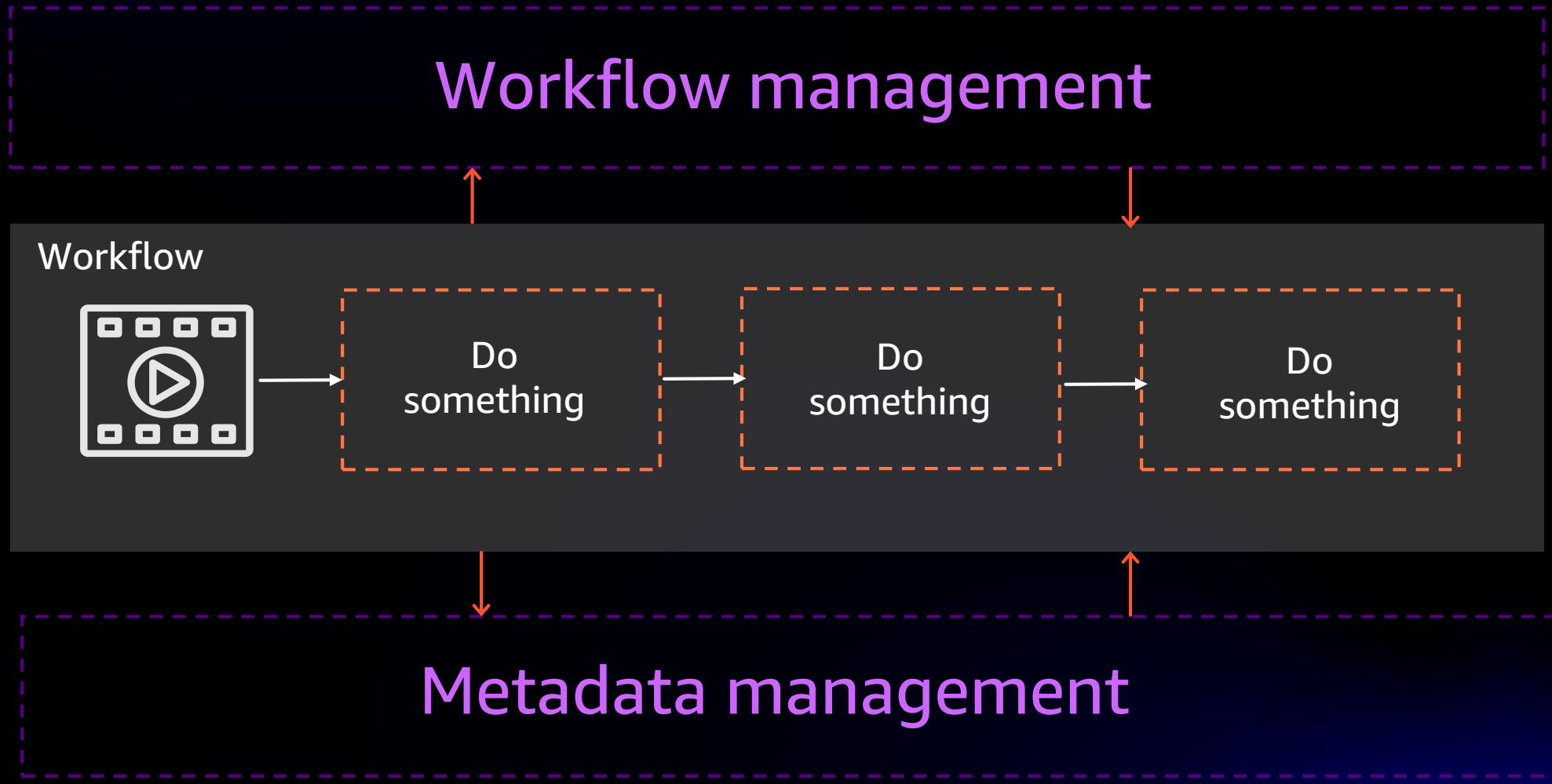
Database



AWS Data Pipeline

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Most media workflows have the same architecture



© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

The Media Insights Engine is…

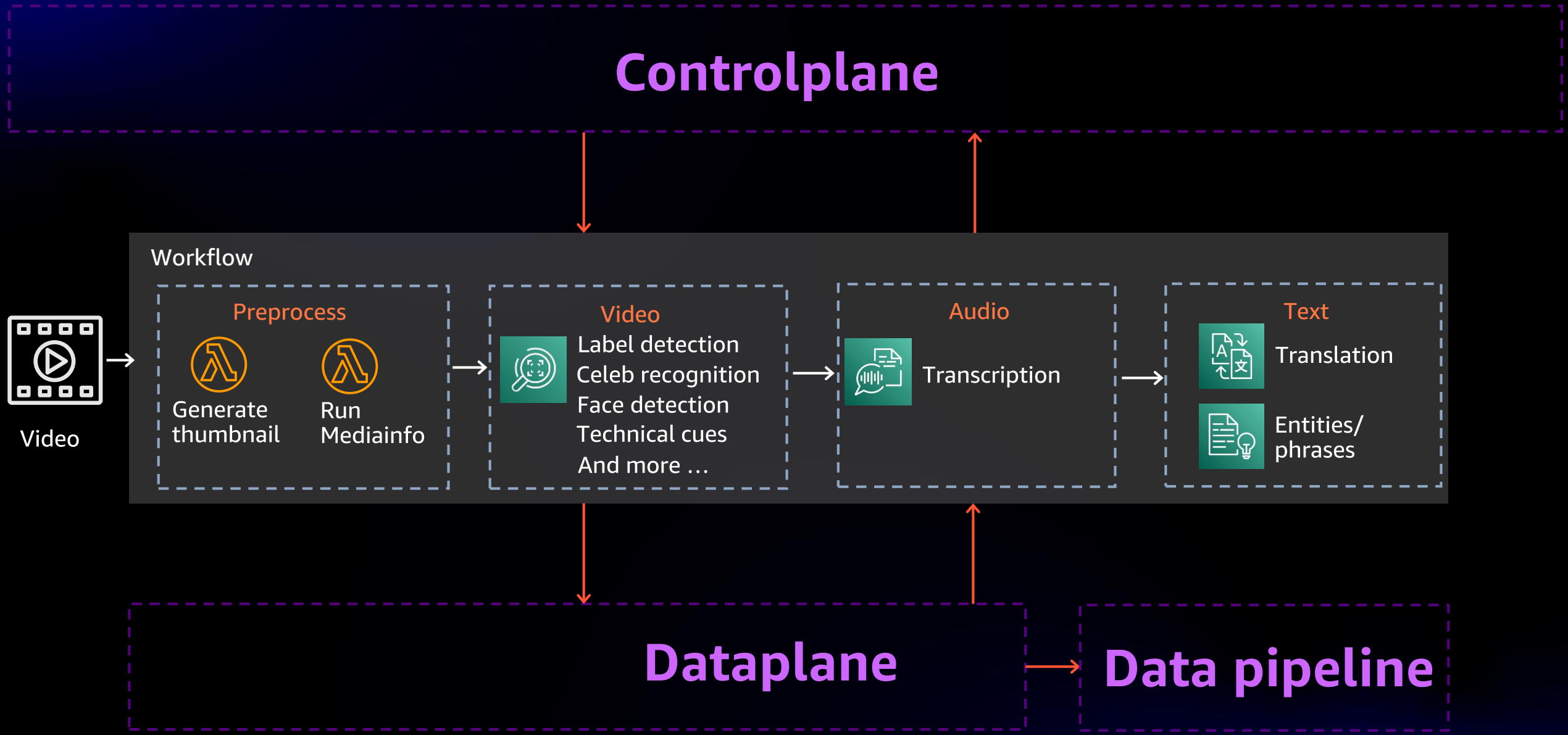
An open source framework that provides the underlying application architecture that allows developers to quickly build AI/ML enhanced media workflows

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

What's included?

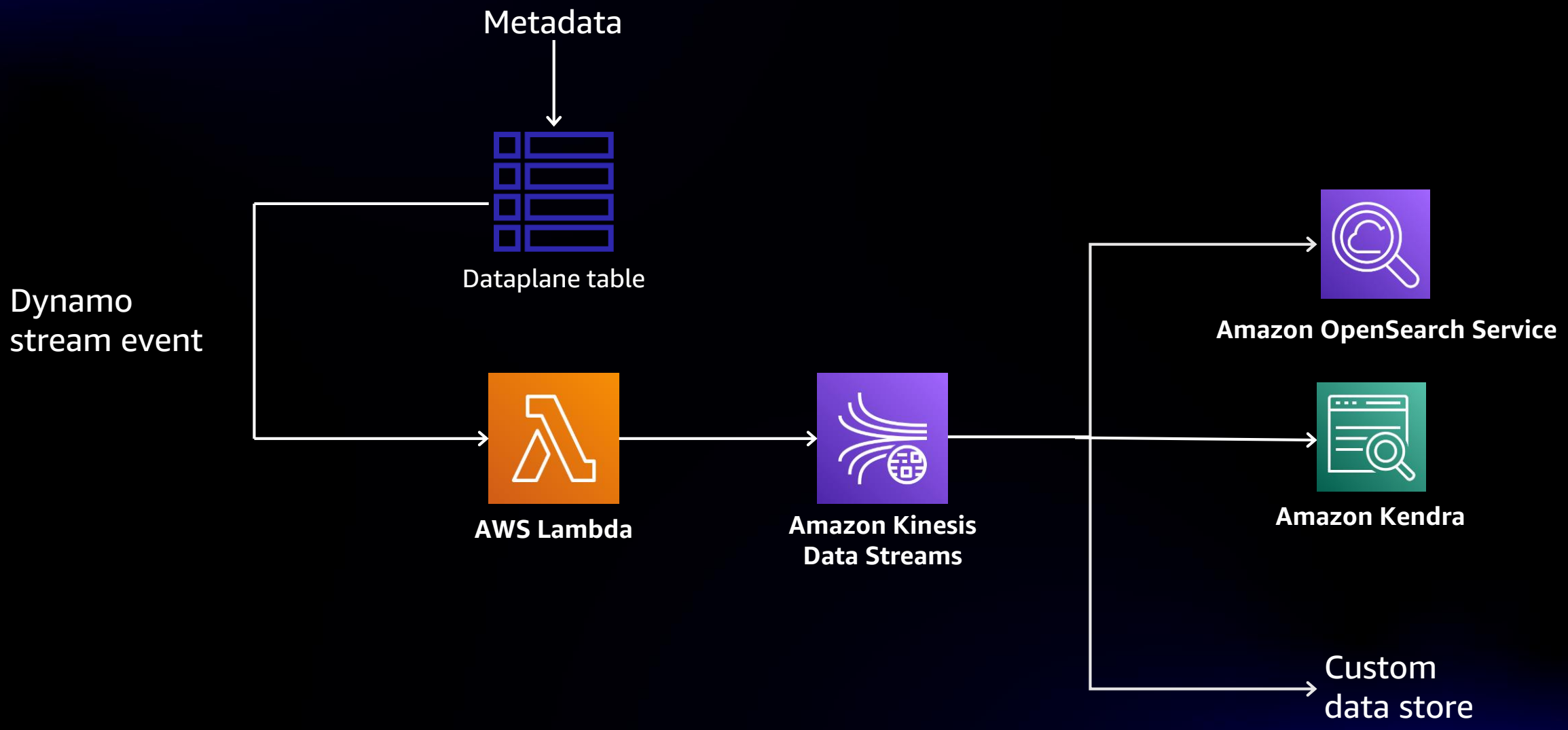
- A complete serverless reference architecture that's deployable using AWS CloudFormation
- APIs to build and execute media analysis workflows and access generated results
- Reusable library of operators that can be used to compose new workflows
- Extendable data pipeline for consuming extracted metadata

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.



© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Module 1: Search interfaces



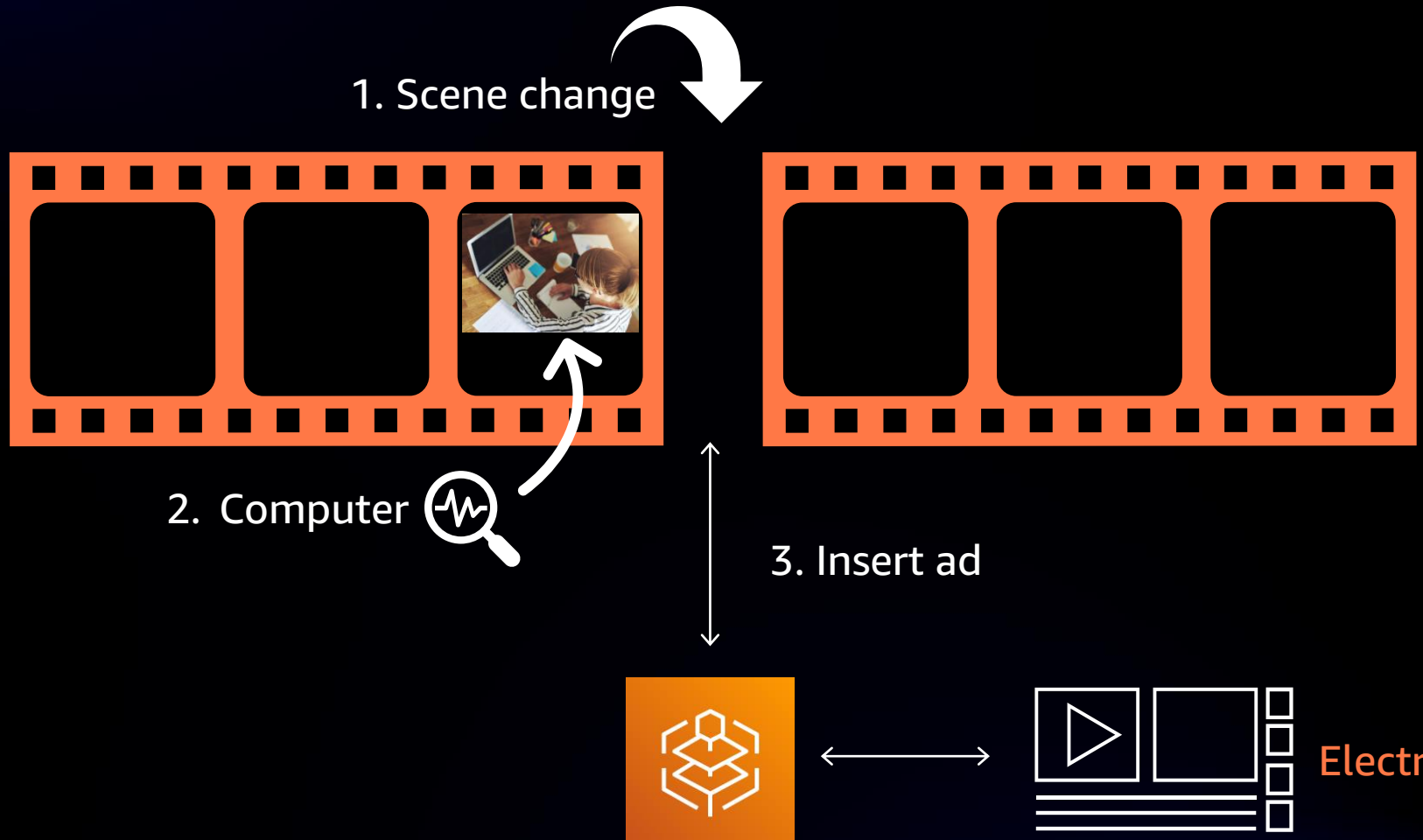
© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

https://dashboard.eventengine.run

Participant hash:
8315-11a93a4054-00

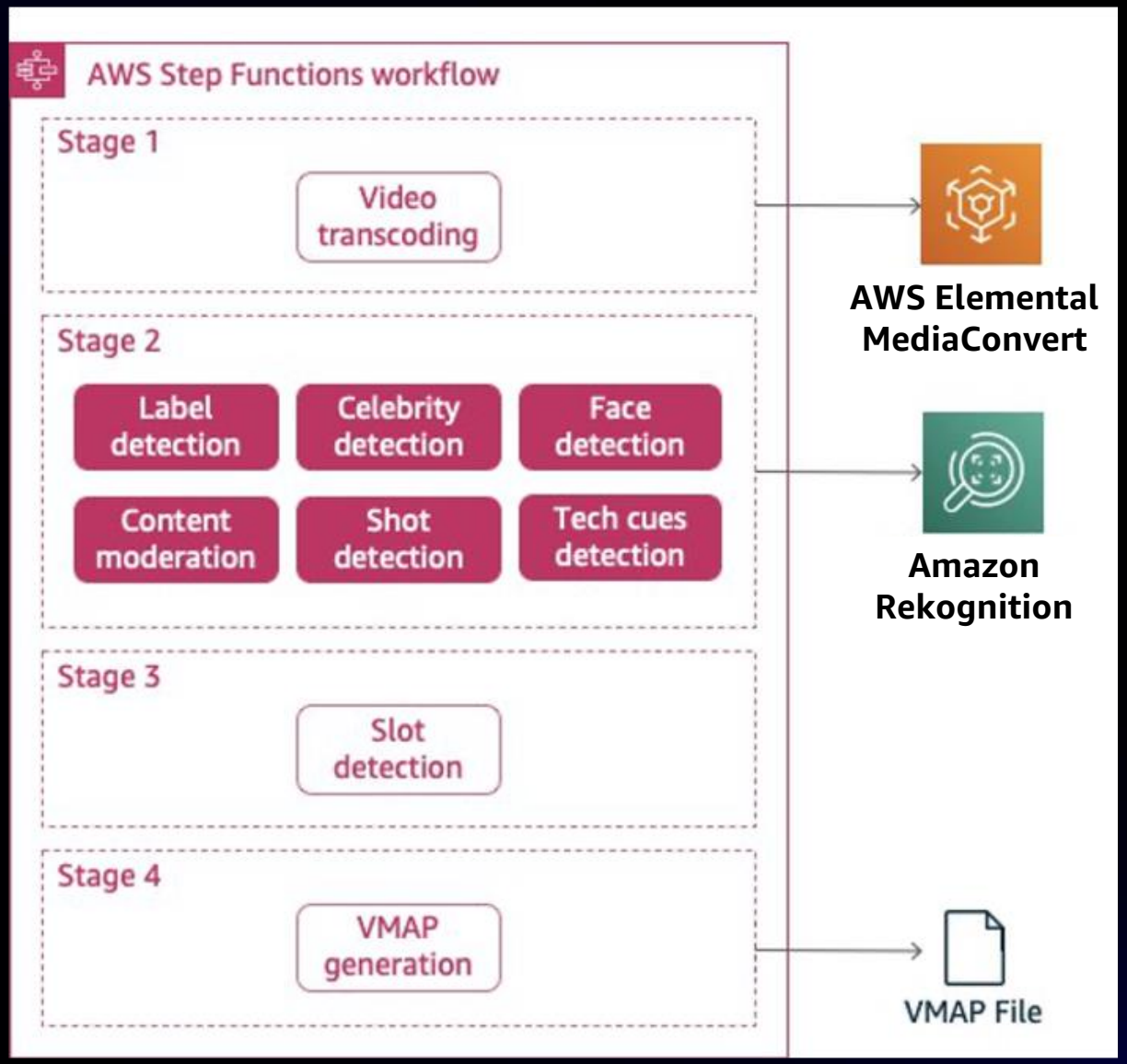
© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Module 2: Context aware ad insertion



© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

AWS smart ad breaks



© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Module 3: Content accessibility with ML generated captions



Welcome to re:Invent!



SearchFlix

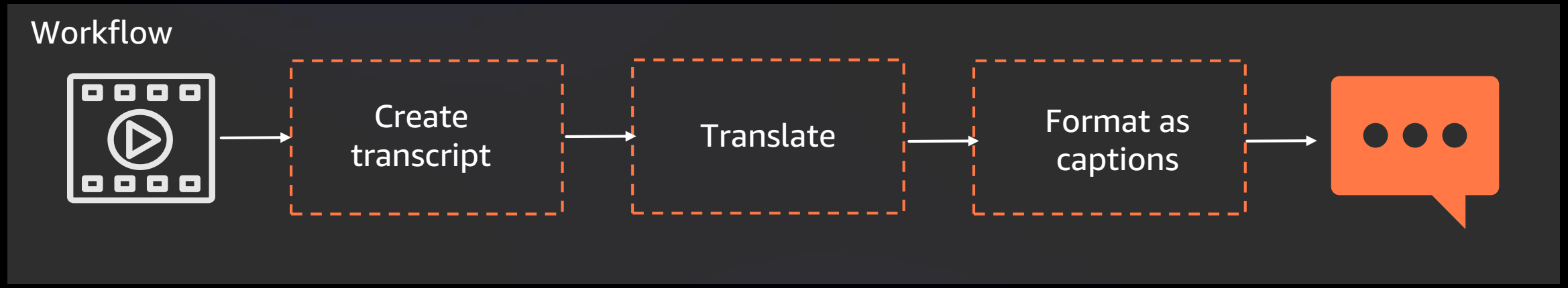


¡Bienvenido a reinventar!

欢迎重新发明！

Bienvenue à réinventer !

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.



Amazon Transcribe custom vocabulary

Amazon Translate custom terminology

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Media Insights Engine

https://github.com/aws-solutions/aws-media-insights-engine

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Thank you!

Alexandria Burkleaux

GitHub: aburkleaux-amazon
LinkedIn: alexburkleaux

Dr. Andrew Kane

GitHub: drandrewkane
LinkedIn: andrewjkane

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.