AWS re:Invent

MDS308-R

Create multi-language video with automated subtitling

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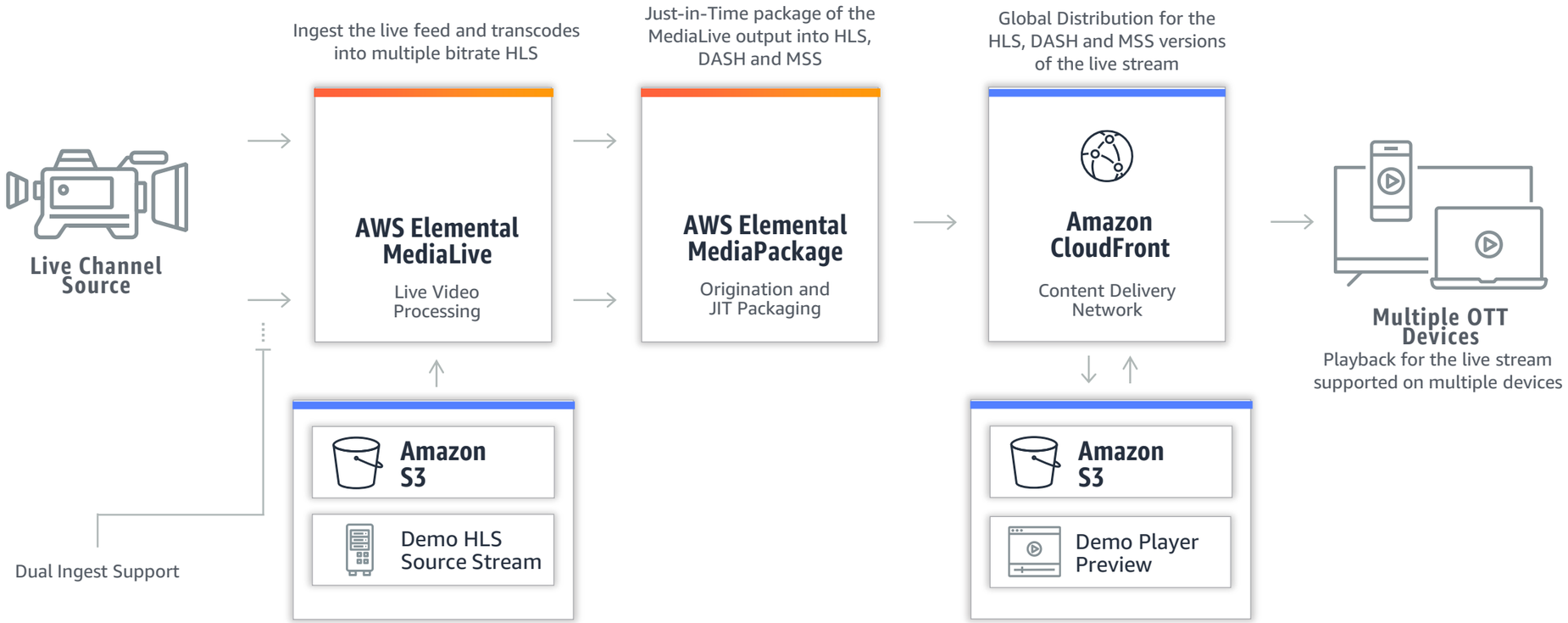
Agenda

1. (5 minutes) Introduction of presenters and attendees.
2. (10 minutes) Overview of session activities. Show slide overview for AWS Elemental MediaLive, AWS Elemental MediaPackage, Amazon Transcribe, Amazon Translate, and Amazon CloudFront.
3. (10 minutes) Run the AWS CloudFormation “Live Streaming with Automated Subtitling” solution. While waiting for this to deploy, we will head to the next section.
4. (5 minutes) Talk about Video On Demand Transcriber if customers have VOD assets they want to use with Amazon Transcribe. Show the demo on MediaServices website.
5. (10 minutes) Inspect the services created by the CloudFormation, if the MediaLive channel has not started, start this now. We will talk about the MediaLive and MediaPackage configuration.
6. (5 minutes) Go over the FAQ and the cleanup. Make sure people clean up their CloudFormation deployment.

(remaining time) Play your live stream. Help with debugging, questions, and discussion. Closing remarks and reminder to shut down channels and clean up account to prevent unnecessary charges. Fill out the feedback survey.

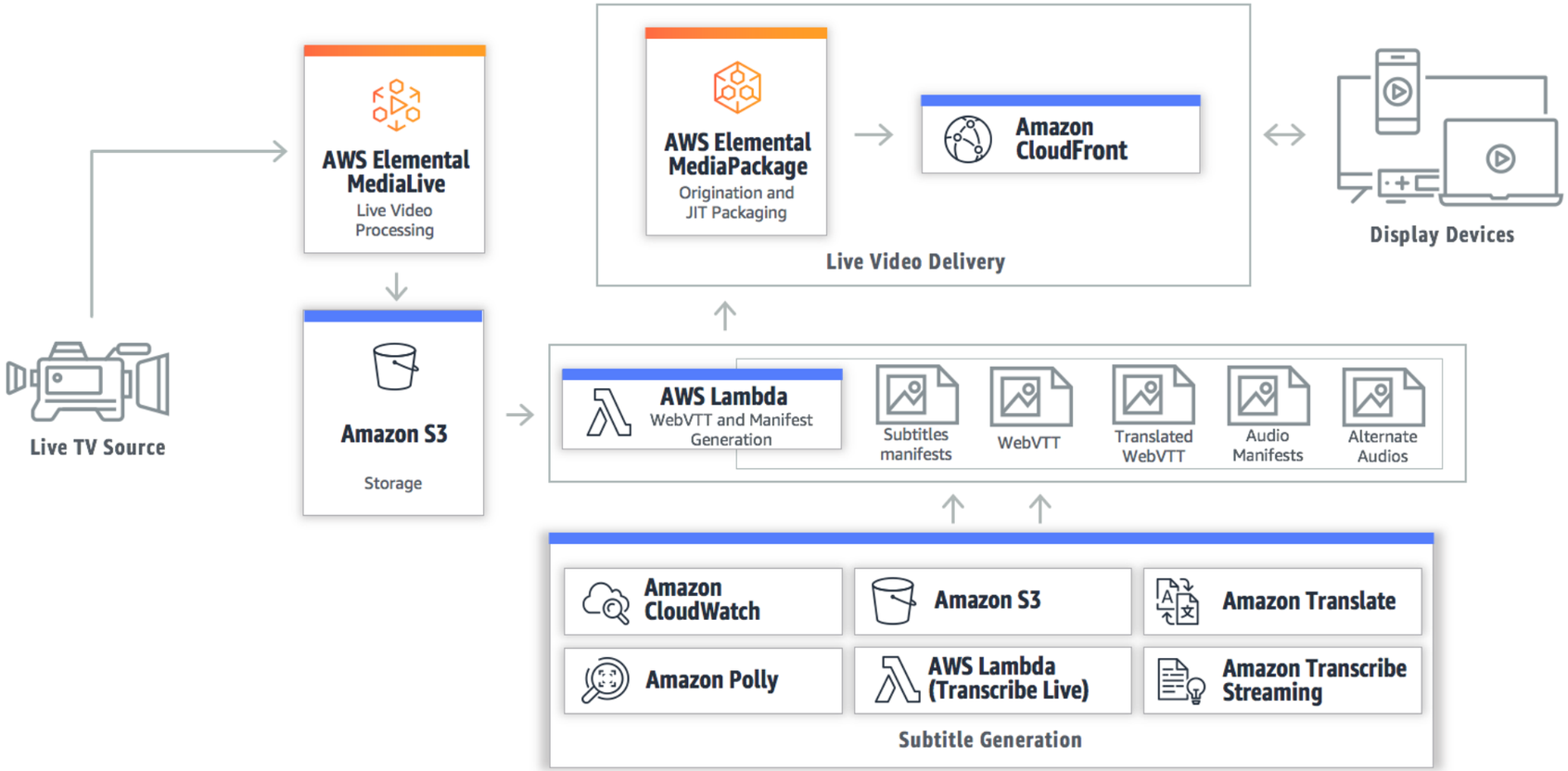
Live video streaming on AWS solution



Features

- Support for RTP, RTMP, and HLS inputs
- Dual input and built-in redundancy
- Multiple variable bitrate outputs from 1080p through 270p
- HLS, DASH, and MSS outputs
- Leverages the highly available and scalable features of AWS Elemental MediaLive and MediaPackage
- Leverages Amazon CloudFront for global distribution
- Automated deployment through CloudFormation and AWS Lambda

Amazon Transcribe and other features



Amazon Transcribe is an automatic speech recognition (ASR) service that makes it easy for developers to add speech-to-text capability to their applications. Using the Amazon Transcribe API, you can analyze audio files stored in Amazon S3 and have the service return a text file of the transcribed speech. You can also send a live audio stream to Amazon Transcribe Streaming and receive a stream of transcripts.

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Check out https://aws.amazon.com/transcribe for more information.

Amazon Translate

Amazon Translate is a neural machine translation service that delivers fast, high-quality, and affordable language translation. Neural machine translation is a form of language translation automation that uses deep learning models to deliver more accurate and more natural-sounding translation than traditional statistical and rule-based translation algorithms. Amazon Translate allows you to localize content—such as websites and applications—for international users, and to easily translate large volumes of text efficiently.

Check out https://aws.amazon.com/translate for more information.

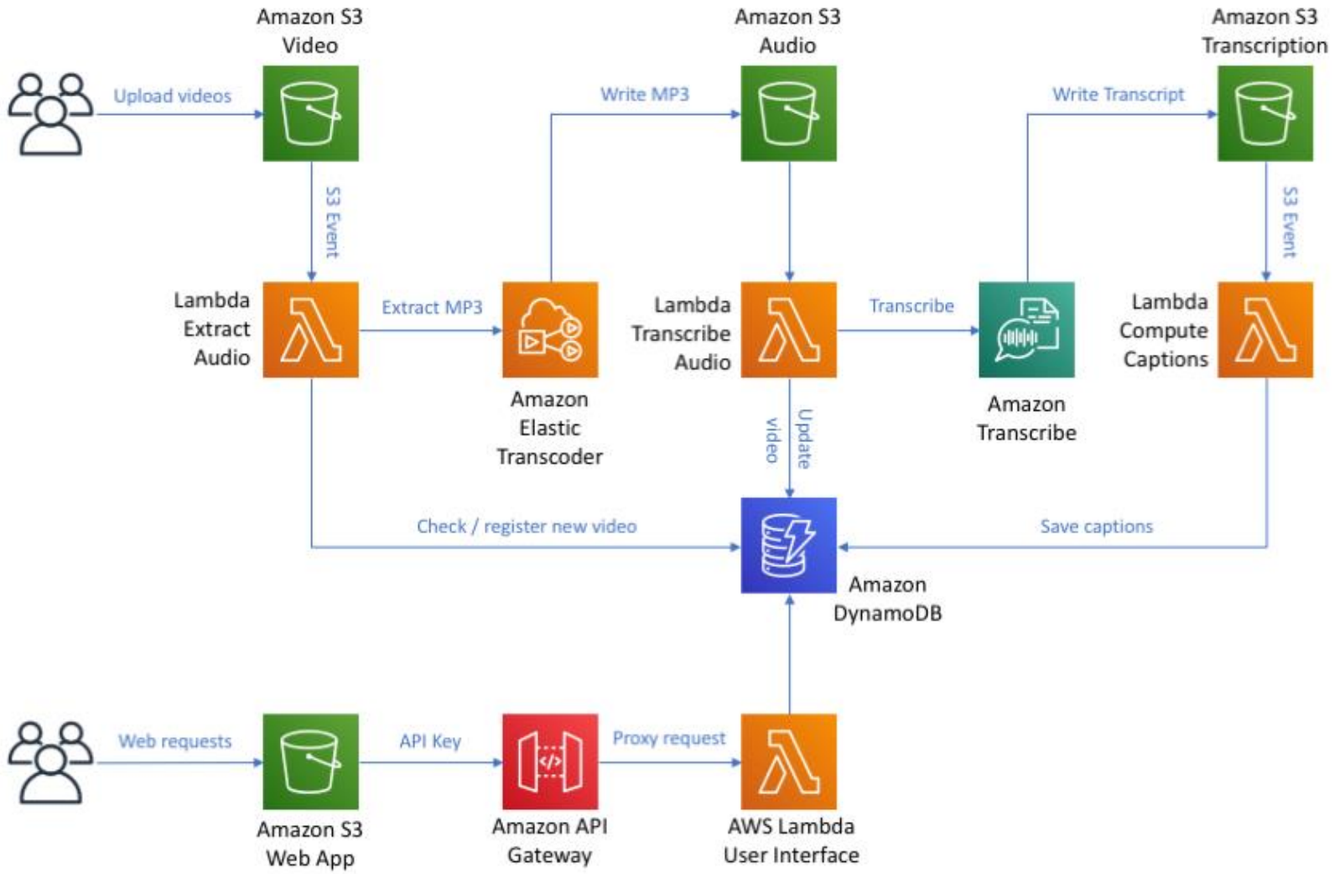
Deploy live streaming with multi-language subtitling

1) MDS308 Builder Session resources (Use URL below)

mds308.s3.amazonaws.com/index.html

Video On Demand (VOD) AWS Video Transcriber

This solution provides a serverless single page web application and set of supporting Amazon API Gateway end points and AWS Lambda functions which allow users to upload videos into S3 and compute and edit closed captions. AWS services used: Amazon S3, Amazon Transcribe, Amazon API Gateway, AWS Lambda and Amazon DynamoDB. https://github.com/awslabs/aws-video-transcriber



Explore solution

1) We will look at the MediaPackage HLS endpoint.

2) View the HLS endpoint in Safari or in the open-source HLS player VideoJS
https://videojs.github.io/videojs-contrib-hls/
Search for “HLS JS Demo Player”

a) Talk about QVBR feature in MediaLive

b) Explore the time delay option and HLS output in MediaPackage

Cleanup reminder

1) The services that make up this lab are usage time billed

2) Delete the CloudFormation stack

Frequently asked questions

Q. What ingest formats does the solution support?
The solution can use all input formats that AWS Elemental MediaLive supports, including Real-Time Transport Protocol (RTP) push, Real-Time Messaging Protocol (RTMP) push or pull, and HLS streams pull.

Q. I want to use RTMP PULL or RTP PUSH?
In order to use RTMP_PULL you need to fill in the Input CIDR block field in the CloudFormation. Use the public IP address where your group RTMP stream is originating from. In addition if you want to be able to send an RTP input into your MediaLive from anywhere in the world, use 0.0.0.0/0 in the field input CIDR block.

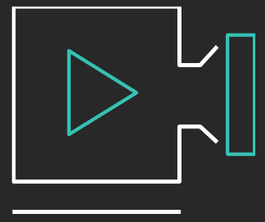
Q. I want low latency?
To minimize latency choose to use an RTP or RTMP input. In addition, edit the MediaPackage channel HLS endpoint and change the segment size from 6 seconds to 2 seconds. Making these changes can yield under 20 seconds of end-to-end latency.

Q. Does this solution support digital rights management (DRM)?
The solution does not support DRM at this time, but it can be customized to support DRM. For an example of how to integrate DRM using Secure Packager and Encoding Key Exchange with AWS Elemental MediaPackage, see this AWS SPEKE GitHub repository.

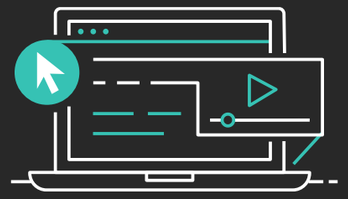
Q. What resolutions does this solution support?
The solution includes the following output resolutions: 1080p at 6500kbps, 720p at 5000kbps and 3300kbps, 540p at 2000kbps, 432p at 1200kbps, 360p at 800kbps, 270p at 400kbps, and 234p at 200kbps.

Learn media services with AWS Training and Certification

Resources created by AWS experts to help you create professional-quality media experiences



Learn from AWS media experts to advance your skills in streaming and monetizing live and on-demand video



20+ free digital media services courses and hands-on labs built by AWS experts, including Introduction to AWS Media Services and Setting Up and Configuring MediaConvert

Visit aws.amazon.com/training/path-mediaservices/

aws training and certification

Thank you!

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Please complete the session survey in the mobile app.