

Command line tool for Text-to-Speech using Amazon Polly (T2S)

Requirements

- Command line tool that implements Text-to-Speech service provided by Amazon Polly.

Non functional requirements

- AWS Polly
 - AWS SDK for Node.js
- Inquirer.js

Amazon Polly

It converts input text into life-like speech. Provide parameters and Amazon Polly then synthesizes the provided text into a high-quality speech audio stream.

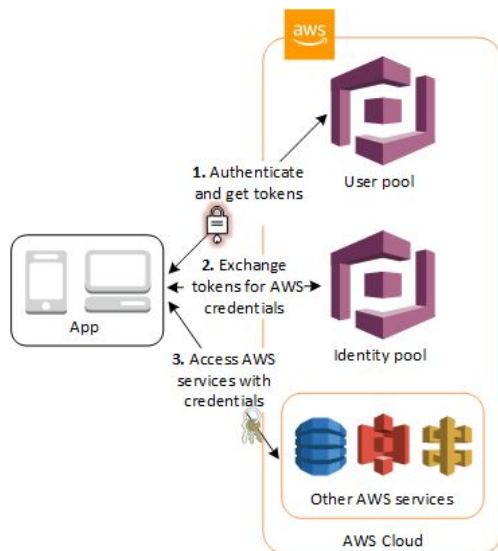
- The main flow can be described as follows



- More details about *SynthesizeSpeech* method
 - https://docs.aws.amazon.com/polly/latest/dg/API_SynthesizeSpeech.html

Authentication with Amazon Cognito

- Use Amazon Cognito to deliver temporary, limited-privilege credentials to your application, so that your users can access AWS resources.
- Amazon identity pool



Shared Folder Structure

Some of the configuration has to be present in the shared folder for the application to be able to perform properly. This shared folder will be provided by the Professor.

The folder includes:

- sharedConfig.json
- Folder that includes the text files
- Folder that audio files will be saved to.

sharedConfig.js file will include several configuration parameters:

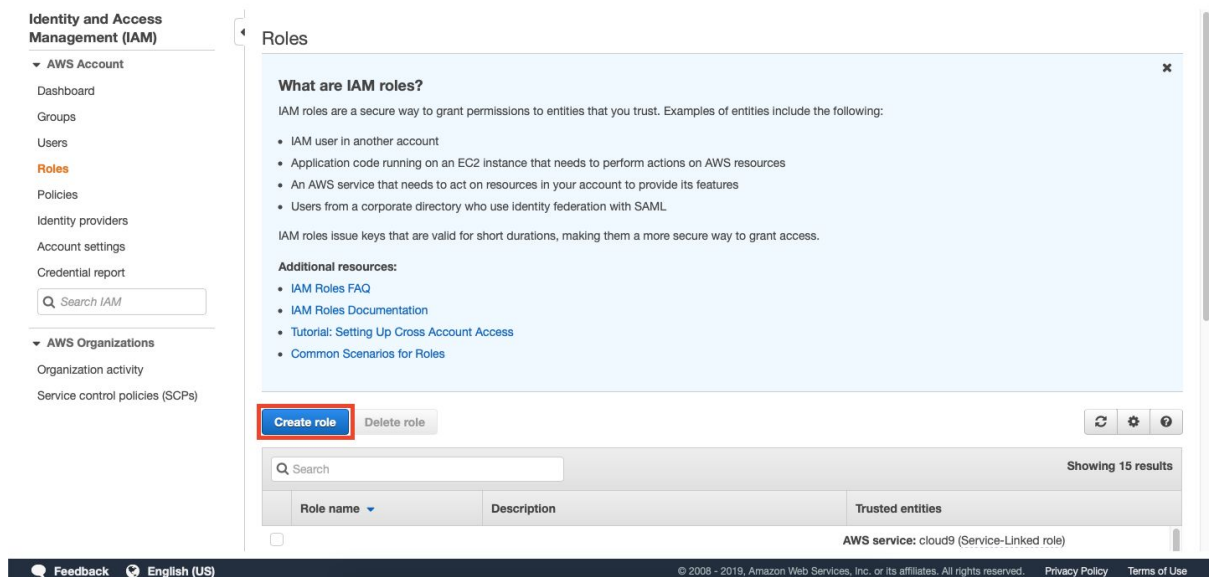
- aws_pool_id: Identity pool id for the AWS Cognito Service
- text_folder: Name of the text folder
- audio_folder: Name of the audio folder
- default_voice: Default name of the voice id for the speech
- extra_voice_character: Character to be used to identify if there is an extra voice parameter within the text file.

Main Assumptions

- Shared folder exists.
- Contents of the shared folder and the sharedConfig.js file are coherent.
- All text files should have at least one SSML tag to be able to converted to audio
- Identity pool id for AWS Cognito service is valid

Prerequisites to Run The Application

1. Create a Role from AWS IAM service and assign AWS Polly full access for that specific role.
2. Create an Identity Pool from AWS Cognito Service.
3. Copy the application to a desired folder.
4. Open terminal/cmd in the same folder as the application
5. Write npm install, wait for it to finish.
6. Write node app.js, application will guide you.



Creating a Role in IAM Service

Federated Identities

User Pools

Note: If you are new to Cognito Sync, use [AWS AppSync](#) instead. AppSync is a new service for synchronizing application data across devices. Like Cognito Sync, AppSync enables synchronization of a user's own data, such as game state or app preferences. AppSync extends these capabilities by allowing multiple users to synchronize and collaborate in real-time on shared data, such as a virtual meeting space or chatroom. [Start building with AWS AppSync now.](#)

Create new identity pool

PollyApp

Identities 222 | Change 3.3%

Getting started

[Developer Guide](#)
[Getting started with Android](#)
[Getting started with iOS](#)
[Identity API reference](#)

In-Depth Guides

[Using Cognito in Your Website](#)
[Using the Cognito Credentials Provider](#)

Community

[Cognito Developer Forum](#)
[AWS Mobile Blog](#)
[GitHub Repository](#)

Feedback English (US)

© 2008 - 2019, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use

Creating an Identity Pool from Cognito Service

Federated Identities

Edit identity pool

Identity pool

Dashboard

Sample code

Identity browser

Getting started with Amazon Cognito

Platform Android

Download the AWS SDK

[Download the AWS SDK for Android](#)
[Developer Guide](#)

Get AWS Credentials

```
// Initialize the Amazon Cognito credentials provider
CognitoCachingCredentialsProvider credentialsProvider = new CognitoCachingCredentialsProvider(
    getApplicationContext(),
    "us-east-1:7bed0a02-3ef1-473e-9b9f-b4860fd67f85", // Identity pool ID
    Regions.US_EAST_1 // Region
);
```

Then initialize the credentials provider:

[Getting Started with Cognito Identity](#)

Go To Dashboard

Feedback English (US)

© 2008 - 2019, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use

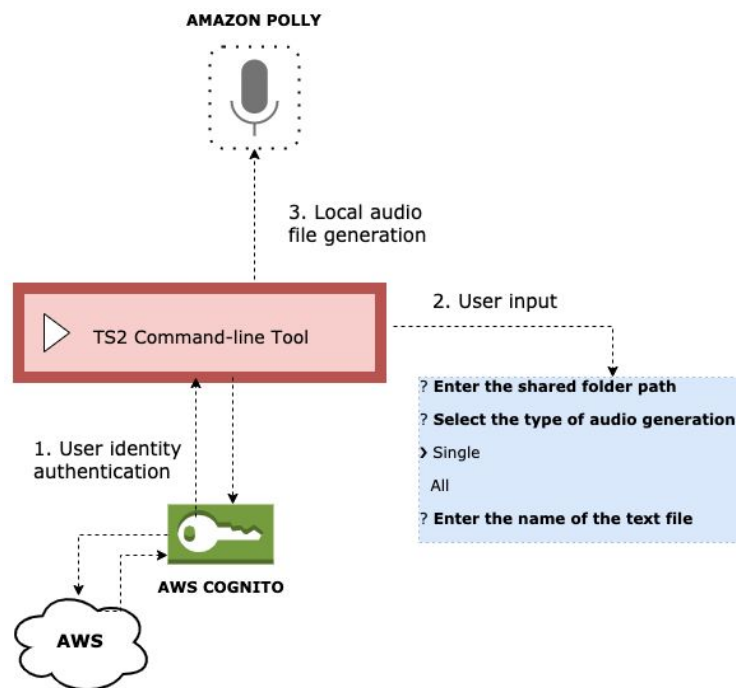
Identity Pool Id Location

Inquirer.js for Command Line Prompts

Collection of common interactive command line user interfaces.

More info: <https://github.com/SBoudrias/Inquirer.js>

Synthesize Speech Mindmap



Bibliography

Tutorials

- <https://medium.com/@anaptfox/getting-started-with-amazon-polly-using-node-js-345e84dbd23d>
- <https://medium.com/@smcelhinney/building-a-greeting-app-using-amazon-polly-and-nodejs-a605f29c20f5>
- <https://trevorsullivan.net/2016/12/01/amazon-aws-cloud-polly-nodejs/>

Amazon Cognito:

- <https://docs.aws.amazon.com/cognito/latest/developerguide/getting-credentials.html>