eCFR Project Overview

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for mancomm.com

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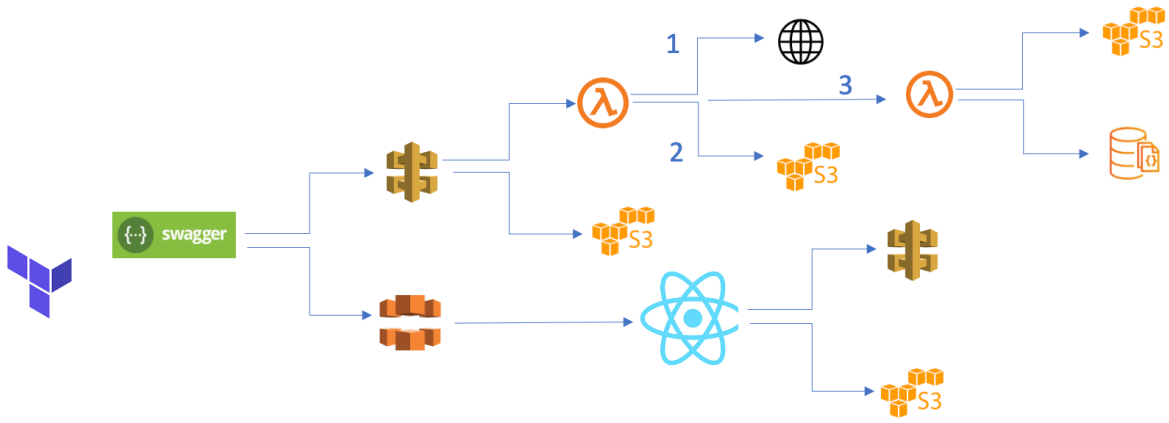
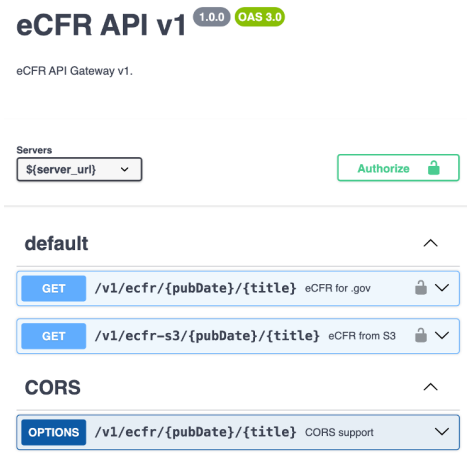
AWS Cloud Architecture Overview

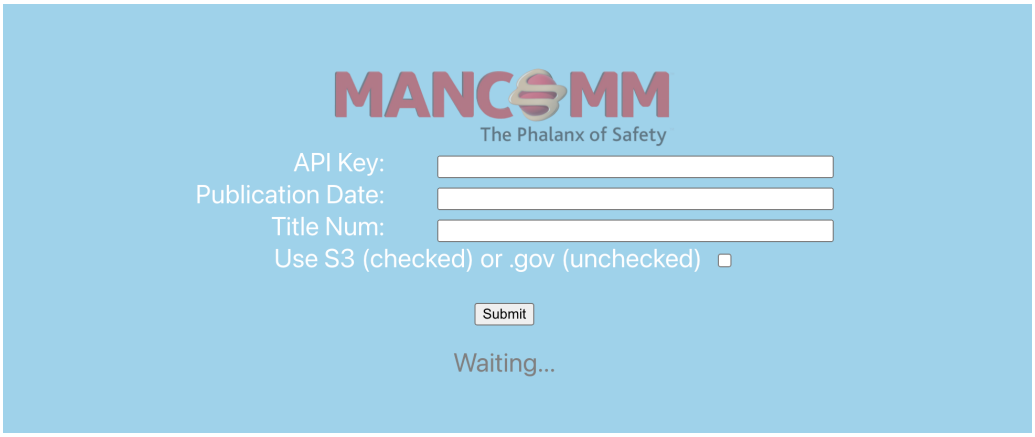


The solution is developed entirely in Terraform, employing a Swagger OpenApi specification to manage the endpoints exposed by AWS API Gateway where the Swagger OpenApi includes the requisite x-amazon-apigateway-integration definition to provision the requisite Request and Response templates.



The OpenApi details provide two paths wherein the caller may specify whether a Publication by `Date` (pubDate) and `Title` (title).

API selection determines whether the requested publications details are resolved by pulling from S3 or scrapping the eCFR .gov site directly as depicted in the project portal.



When ‘Use S3’ remains unchecked, the portal employes an API Gateway endpoint that invokes a lambda handler with the pubDate and title request details. Once the lambda successfully retrieves the publication, the contents are compressed, base64 encoded and pushed to a raw S3 bucket. Subsequently, the lambda itself performs a lambda invoke to notify via Event the availability of a new publication to persist in a DocumentDB and, once normalized, to a pretty S3 bucket.

If ‘Use S3’ is checked, the portal calls an API Gateway endpoint that proxies a request directly to S3.

The React frontend is exposed by CloudFront and, based on the S3 selection in the portal, will communicate with API GW or S3 as described.

The lambdas are configure to log to CloudWatch.
Source code for the project has the following construct:

- Terraform files are in the project root
- An archive directory contains the deployable entities for the component artifacts
- A frontend directory manages the React portal
- The OpenApi spec is found under the templates directory

```
├── README.md
├── apigateway.tf
├── archive
│   ├── auth.zip
│   ├── docdb-index.zip
│   └── ecfr-index.zip
├── authorizer.tf
├── cloudfront.tf
├── cloudwatch.tf
├── data.tf
├── documentdb.tf
├── frontend
│   ├── README.md
│   ├── build
│   │   ├── index.html
│   │   └── static
│   │       ├── css
│   │       ├── js
│   │       └── media
├── templates
│   └── swagger.json
├── variables.tf
└── vpc.tf
```