



# Geoportal

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FOSS4G 2021  
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Provita Geoportal:  
a serverless GIS portal using the Jamstack  
<https://geoportal.provita.org.ve/en/>

# Agenda

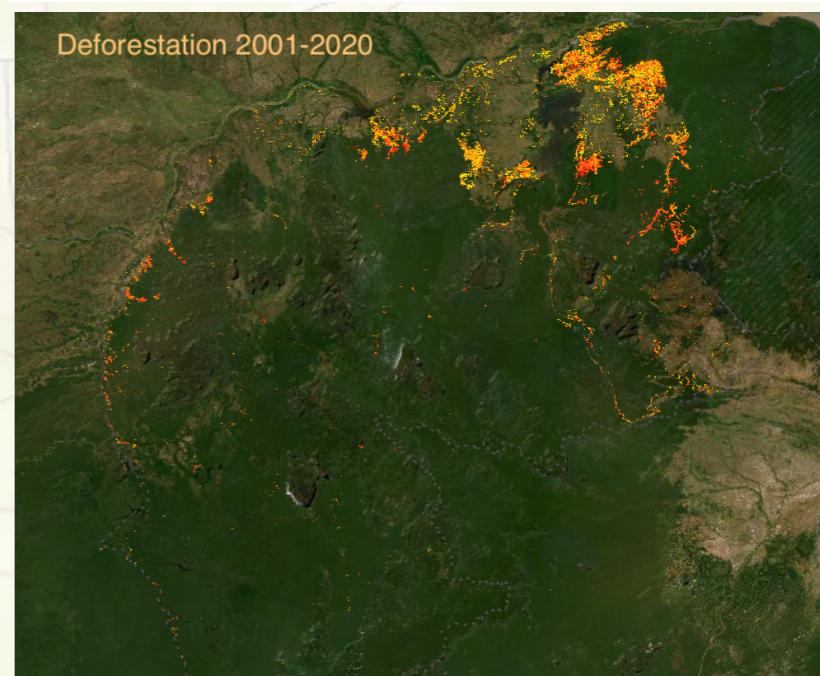
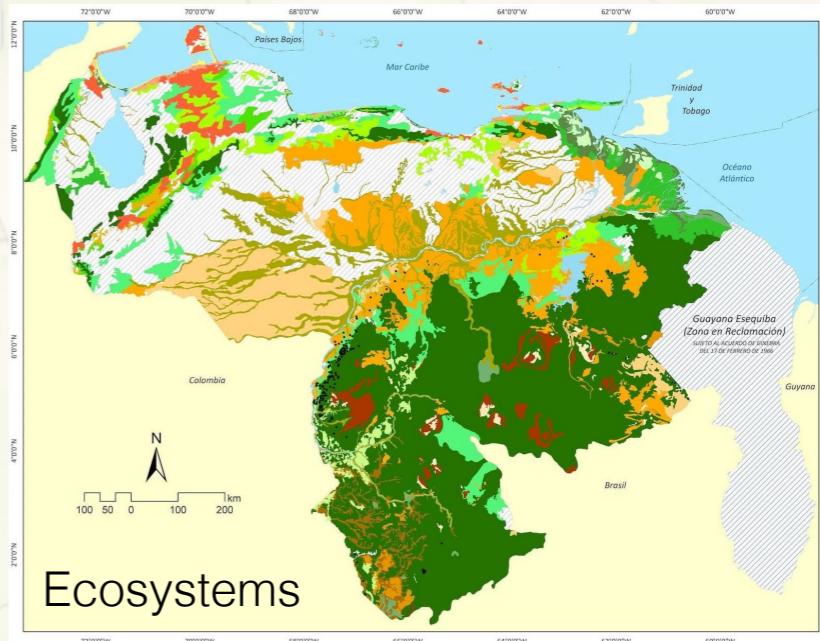
- Provita
- Demo
- Jamstack, frameworks, services and tools
- Design overview
- Serverless functionality
- Recap



*Libro Rojo*  
de la Fauna Venezolana



**RAiSG**  
AMAZONIAN NETWORK OF GEOREFERENCED  
SOCIO-ENVIRONMENTAL INFORMATION



# DEMO



# Geoportal

## Geoportal

About FAQ News Contact

**Data sets**

Search  Filter

**Accumulated deforestation for the period 2001-2020 in the Venezuelan Amazon**

Download (351.7M) Tiles  Add to map Date: 4/20/2021 Format: PDF Source: Provita [deforestation](#) [amazon](#) [venezuela](#) [pdf](#)

The maps represent the accumulated deforestation area between the years 2001 and 2020, identified from the changes in the extent of the forests in the vegetation cover and land use maps

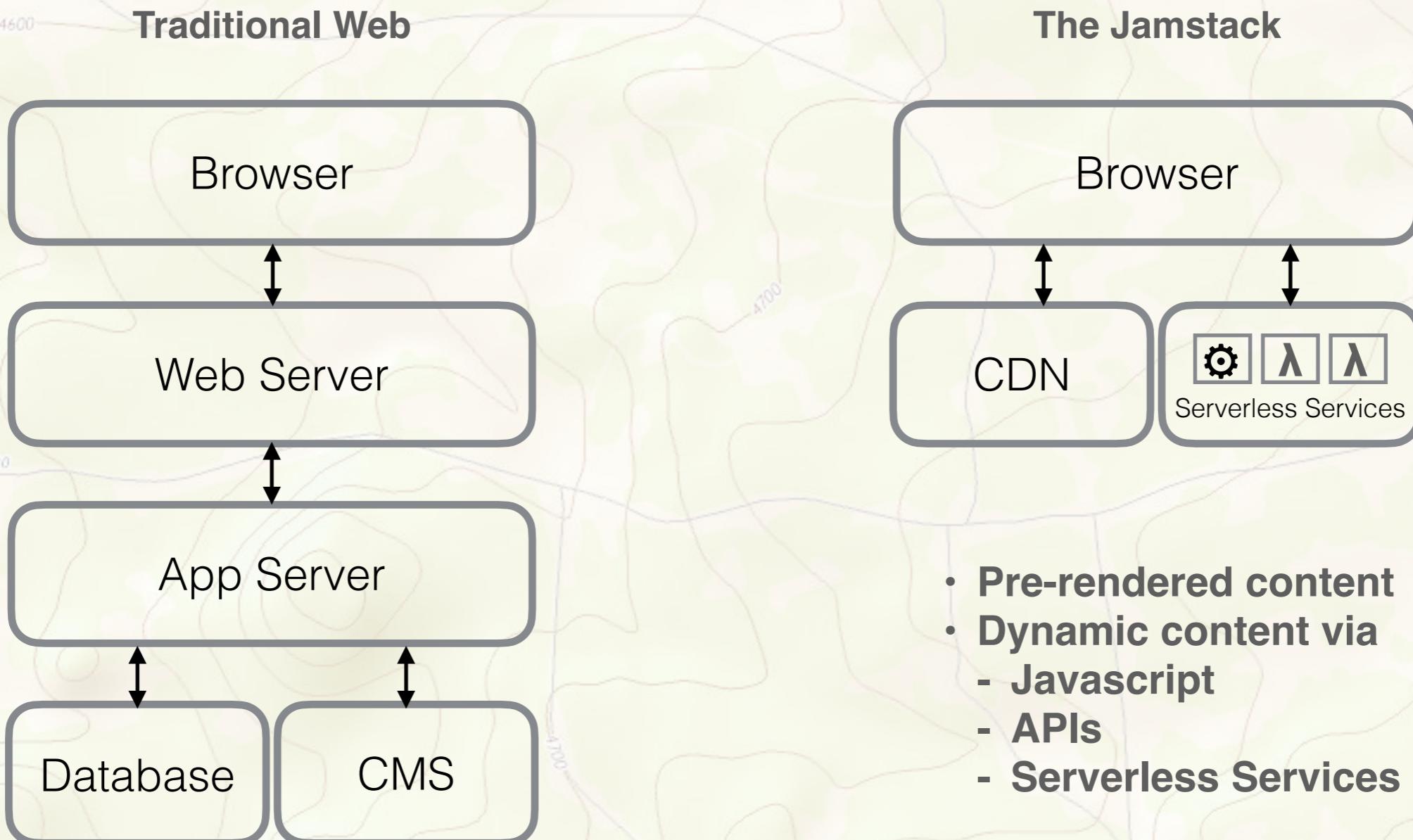
Accumulated deforestation for the period 2001-2020 in the Venezuelan Amazon

2001  
2002

IGVSB | Provita | Tiles © Esri – Source: ArcGIS World Topographic Map



# Jamstack

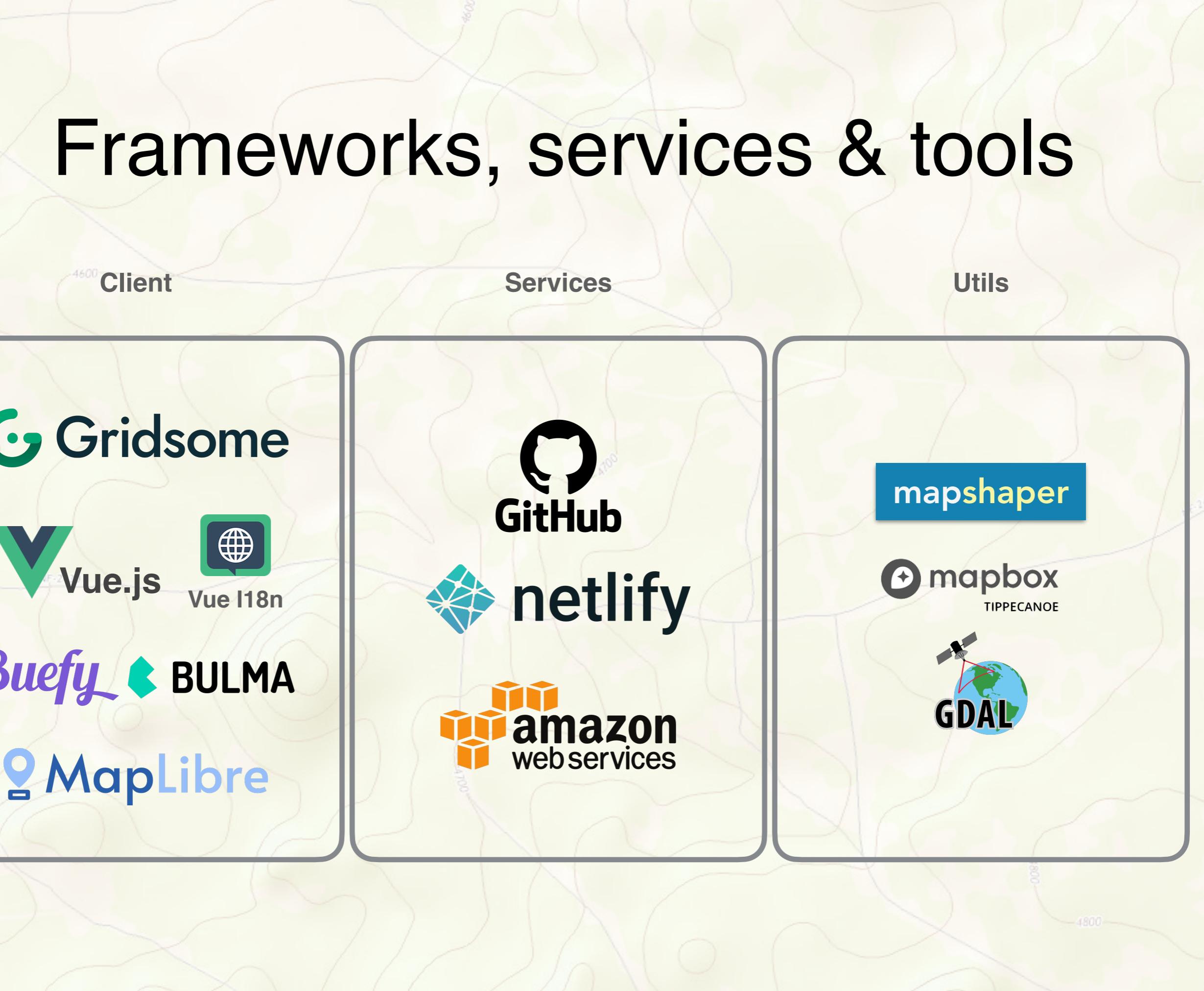


# Frameworks, services & tools

Client



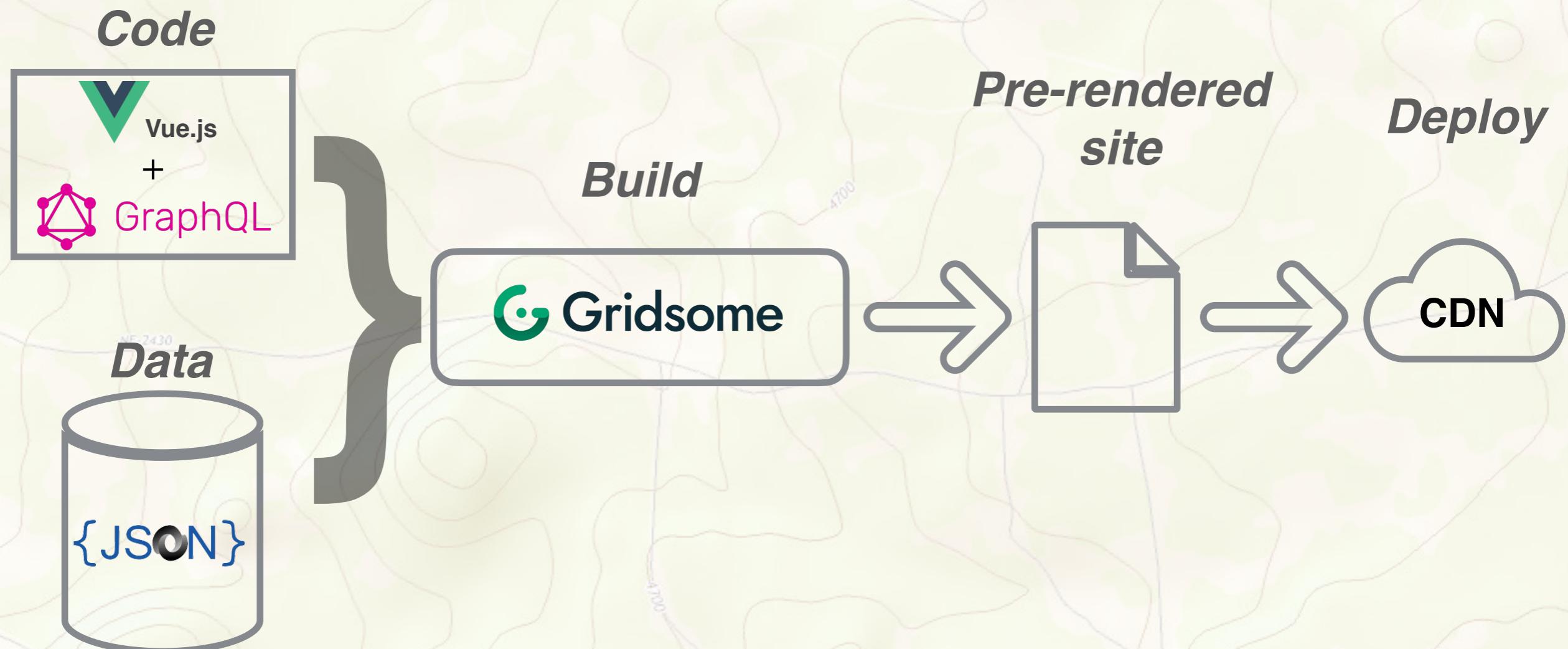
Services



Utils



# Pre-rendering with Gridsome



# Example: About.vue

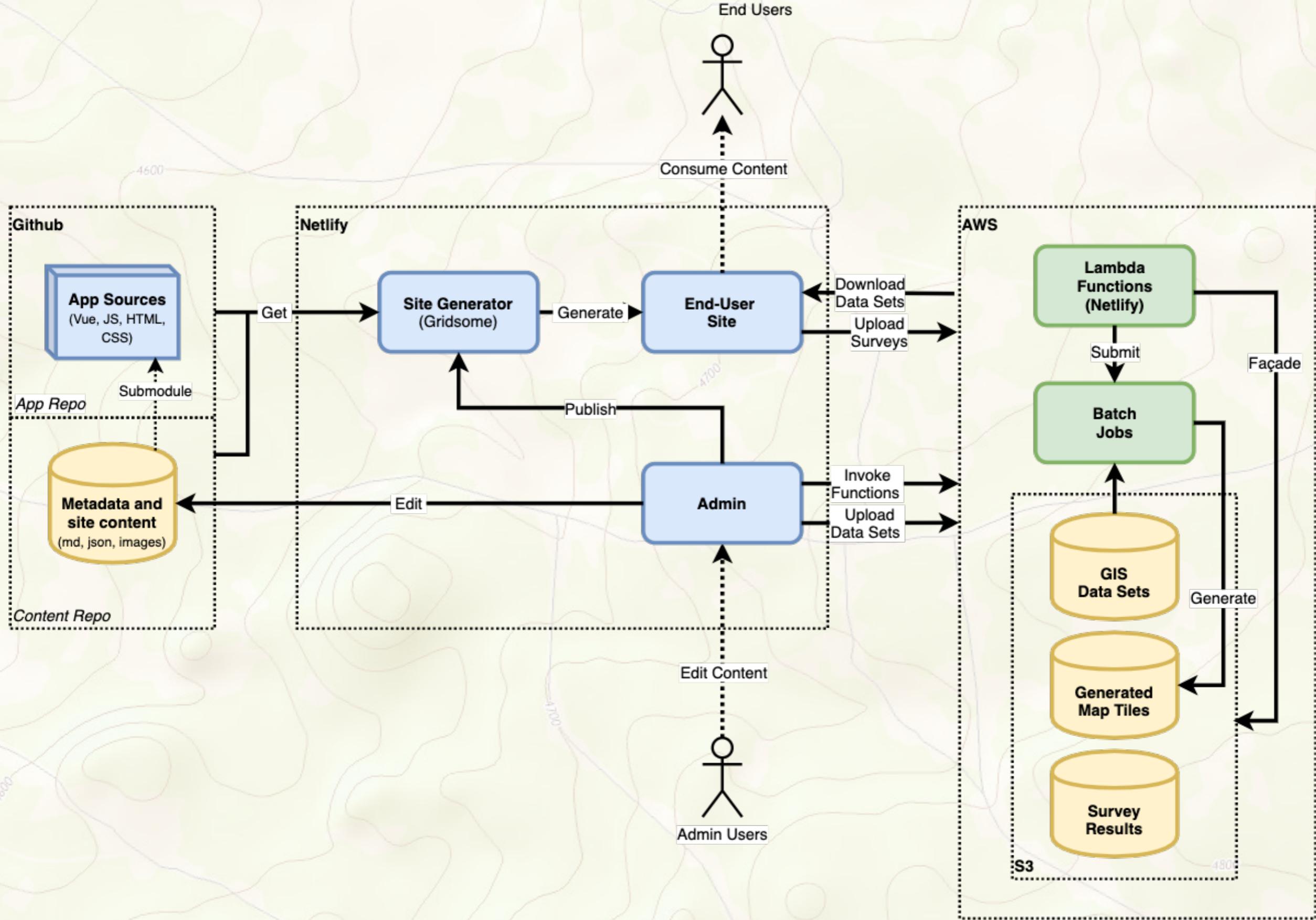
```
<template>
  <Layout :bannerImage="bannerImage">
    <template slot="banner">
      {{ $t('label.about') }}
    </template>
    <div
      class="container site-text"
      v-html="$page.aboutData.text[$i18n.locale.substr(0, 2)]">
    </div>
  </Layout>
</template>

<page-query>
  query About {
    aboutData: aboutData (id: "about") {
      text {
        en
        es
      }
    }
  }
</page-query>
```

```
{
  use: '@gridsome/source-filesystem',
  options: {
    path: 'data/about.json',
    typeName: 'AboutData'
  }
}
```

gridsome.config

# Design Overview



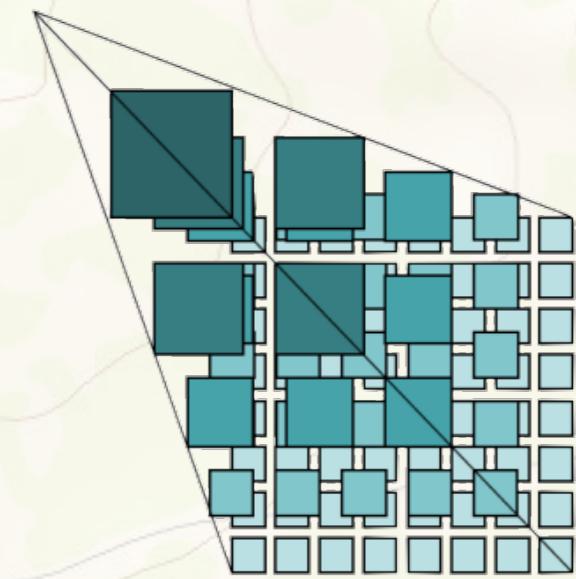
# Serverless functionality



**Admin  
Authorization**

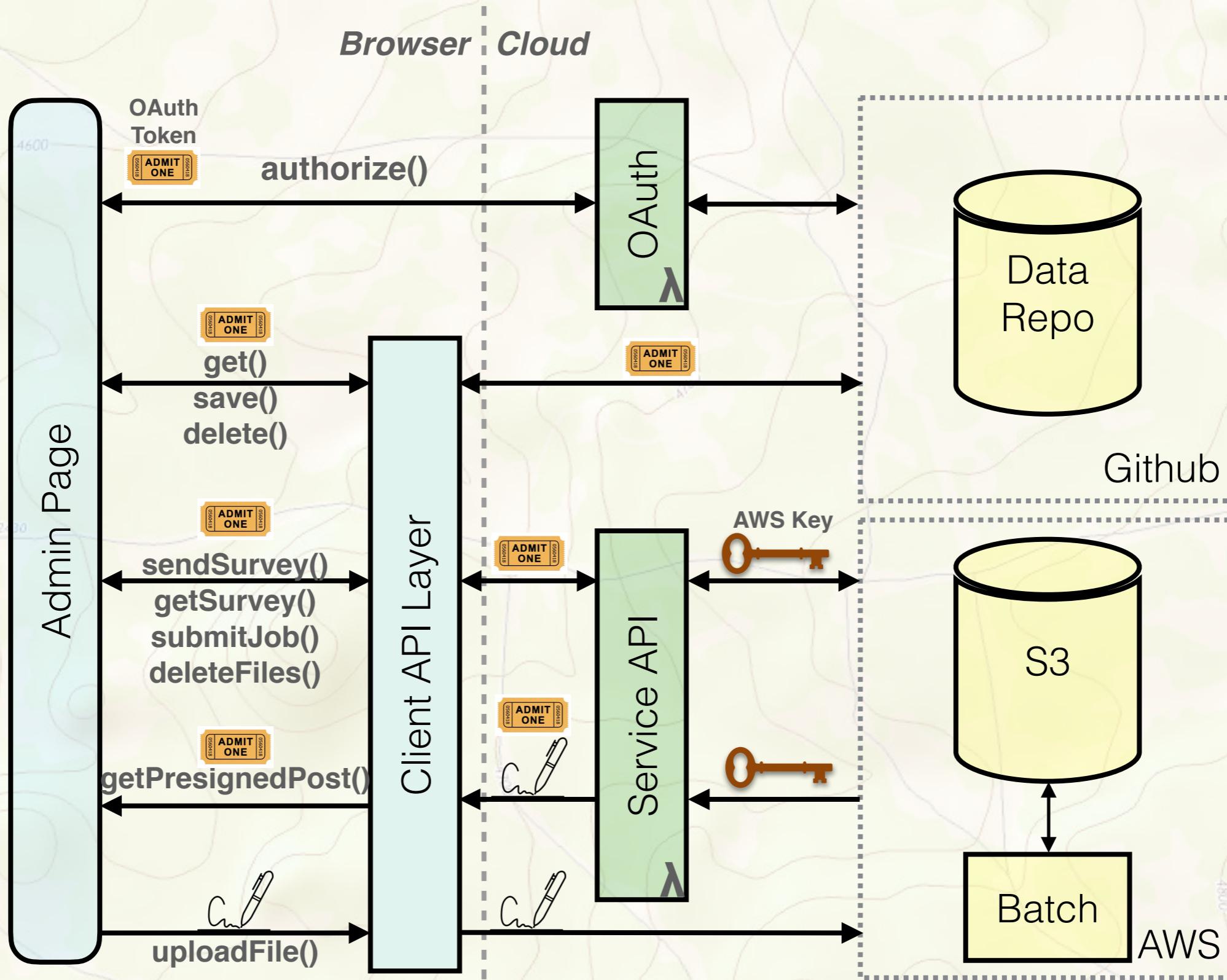


**File  
Uploads**

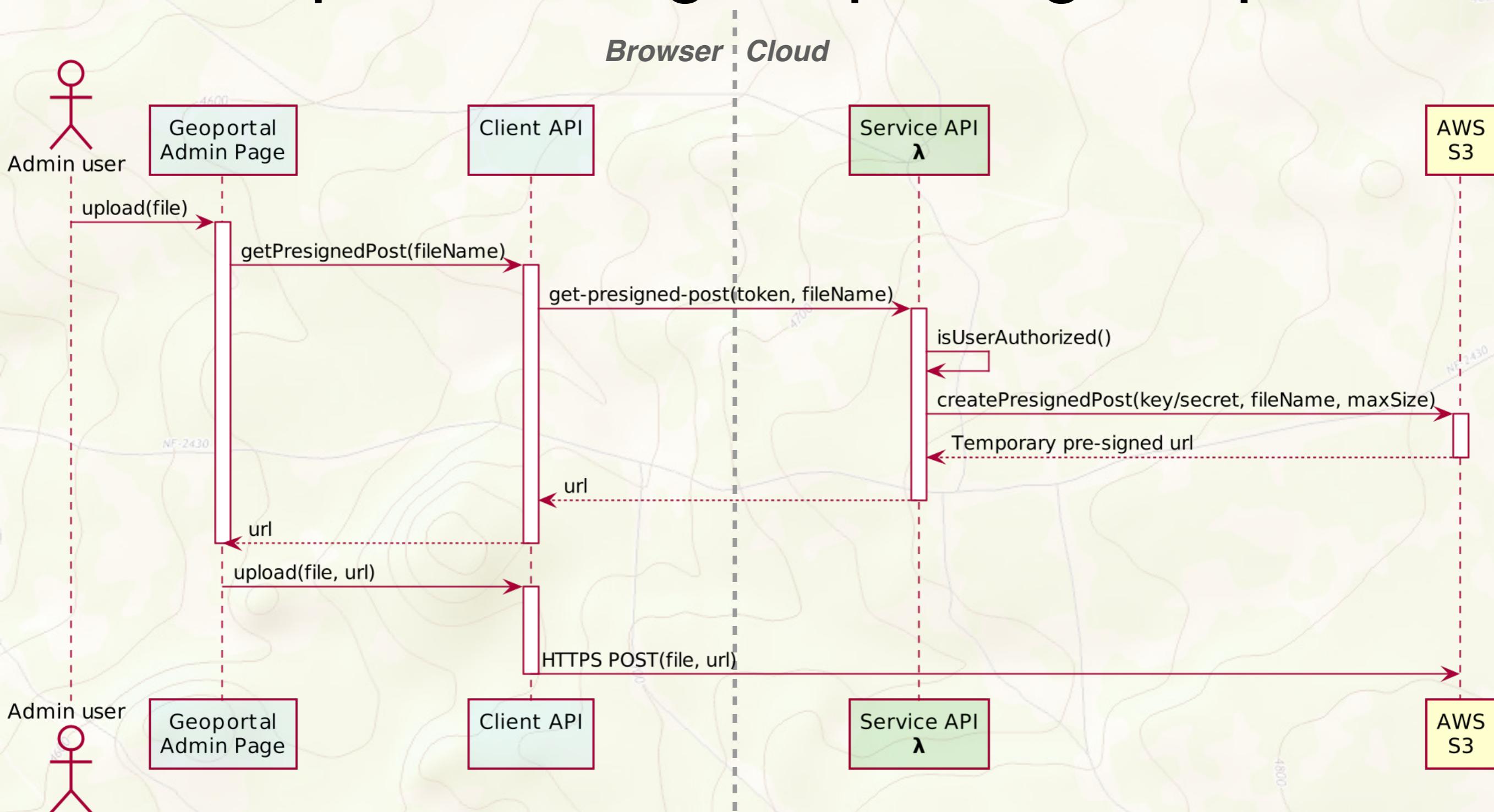


**Tile  
Generation**

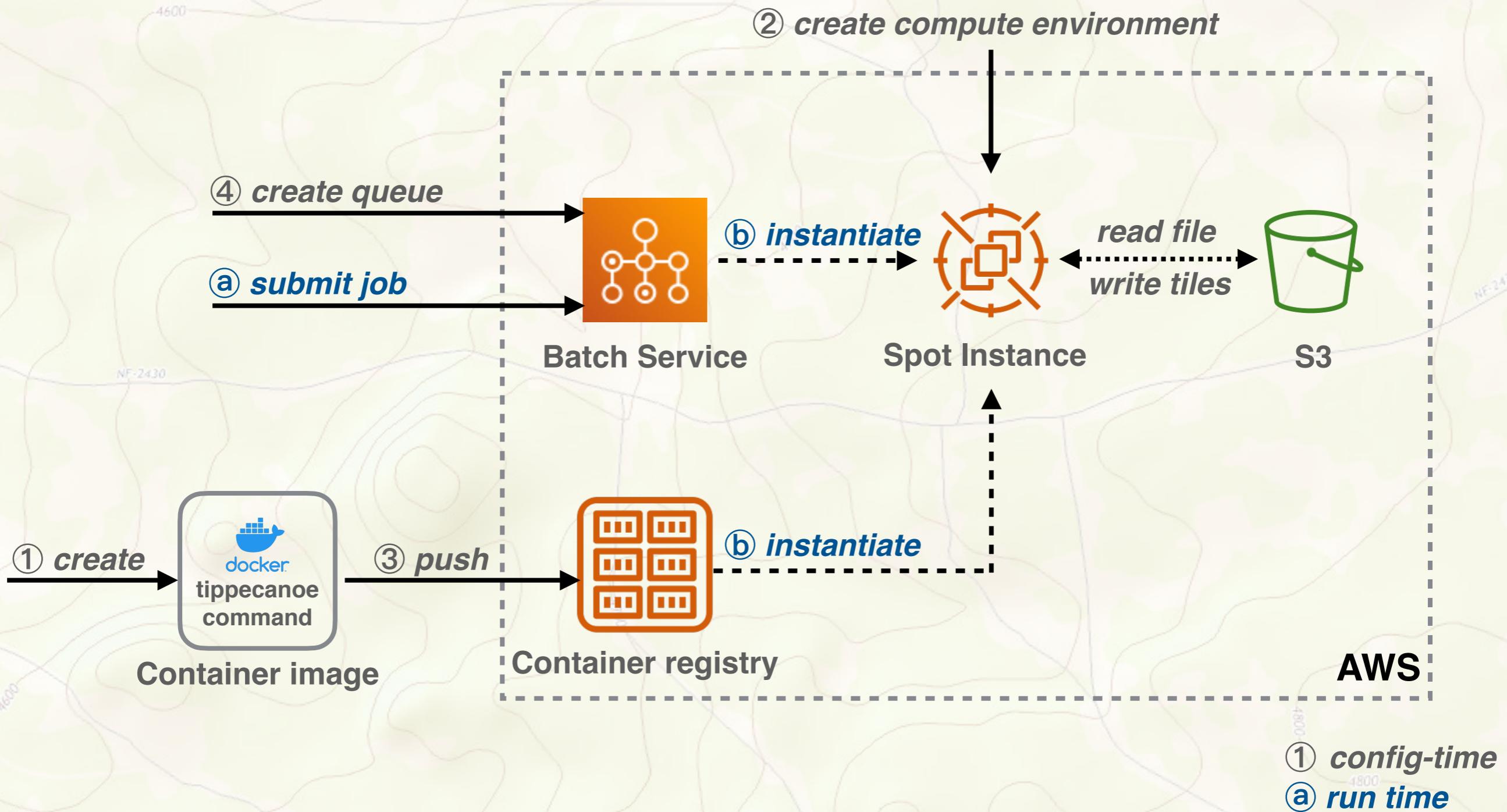
# Admin authorization



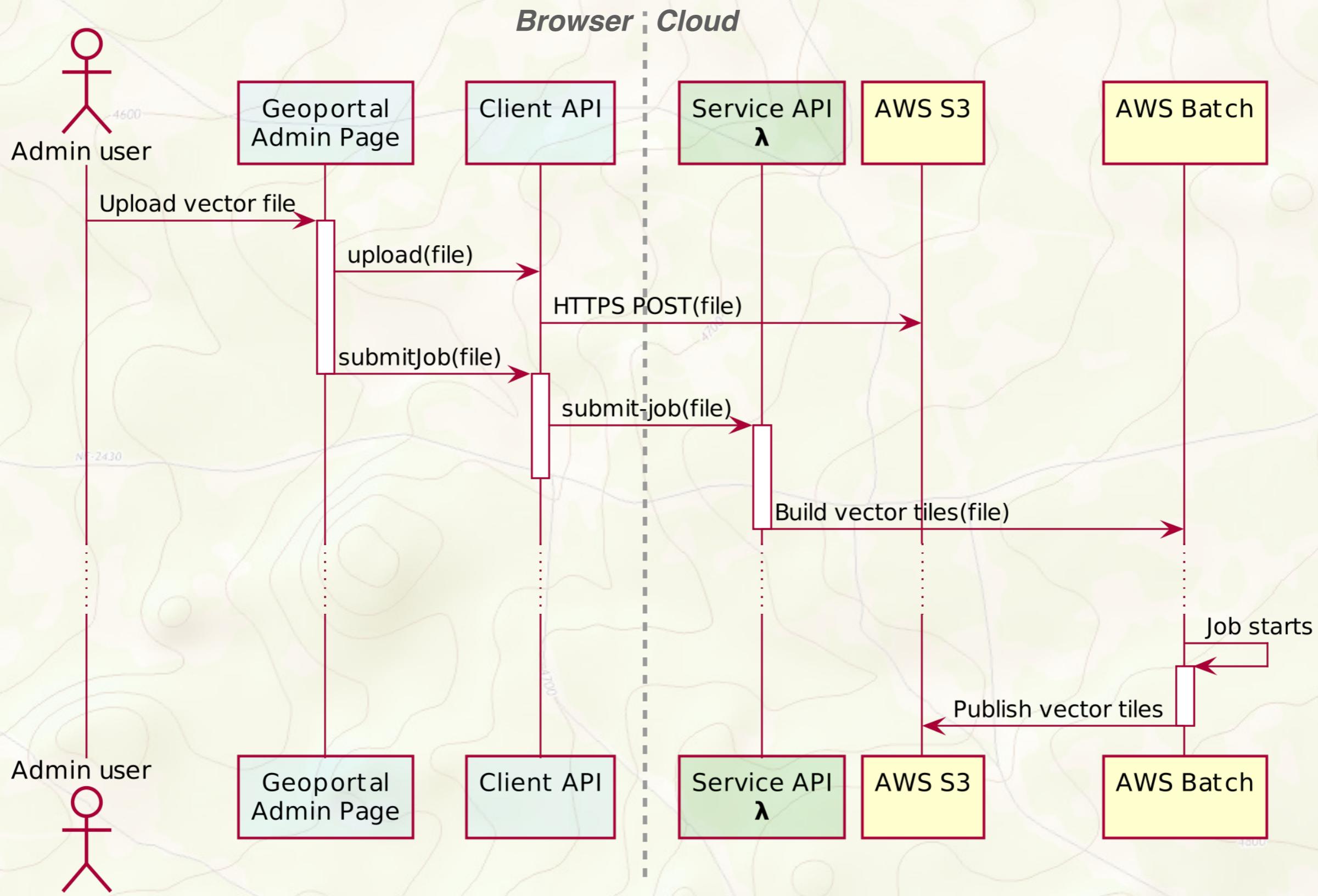
# File upload using S3 pre-signed post



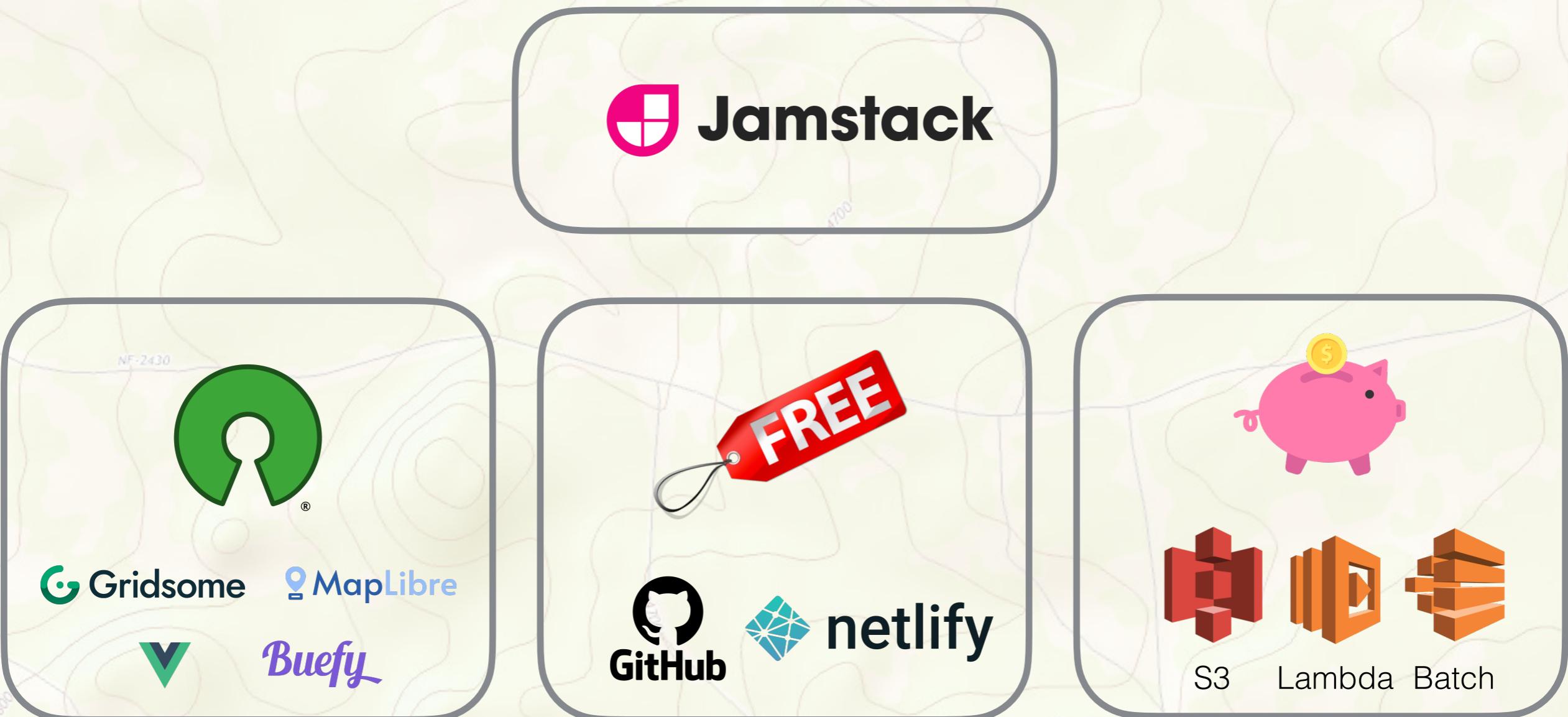
# Executing tile generation commands with AWS Batch



# Vector tile generation



# Recap: low-cost & low-touch



# Contributions welcome!

<i>I want to see and download the files</i>	Go to <a href="http://geoportal.provita.org.ve">geoportal.provita.org.ve</a>
<i>I want to learn implementation details</i>	Go to the blog series: <a href="http://morinricardo.com/post/2021-09-27-foss4g2021">morinricardo.com/post/2021-09-27-foss4g2021</a>
<i>I want the author to fix bugs</i>	Create issues on Github: <a href="https://github.com/Provitaonline/geoportal/issues">github.com/Provitaonline/geoportal/issues</a>
<i>I want the author to consider and work on new features</i>	Comment on the blog: <a href="http://morinricardo.com">morinricardo.com</a>
<i>I want to create my own and/or contribute code</i>	Fork & PR repos: <a href="https://github.com/Provitaonline/geoportal">github.com/Provitaonline/geoportal</a>

*Find me:*

**@jimmieangel on Twitter**

**My blog: morinricardo.com**

# Many thanks to...

- Provita NGO
- Juan Carlos Amilibia, Project Analyst, Provita
- Rodrigo Lazo, Technical Coordinator, Provita
- Irene Zager, Director of Research, Provita
- Open source communities: Gridsome, Vue, Buefy, Bulma, MapLibre, Mapshaper, Mapbox, GDAL

*Thank you!*