Share-VDE technological stack

Share-VDE's engines: the API Layers

Search API

A powerful and highly standardized **API** exposing Share-VDE' search capabilities over the **HTTP** protocol.

It comes in two flavours:

- **GraphQL**, with a rich data dictionary and the flexibility to query and extract only the fields of interest.

- **RESTful**, returning data represented according to the **HATEOAS** standard.

Knowledge Base

Curation API
J.Cricket

An advanced API offering **Prism curation** capabilities.

It takes advantage of the most modern features of **GraphQL** to establish a continuous informational dialogue between the server and the connected clients, so to offer them the most reactive experience possible.
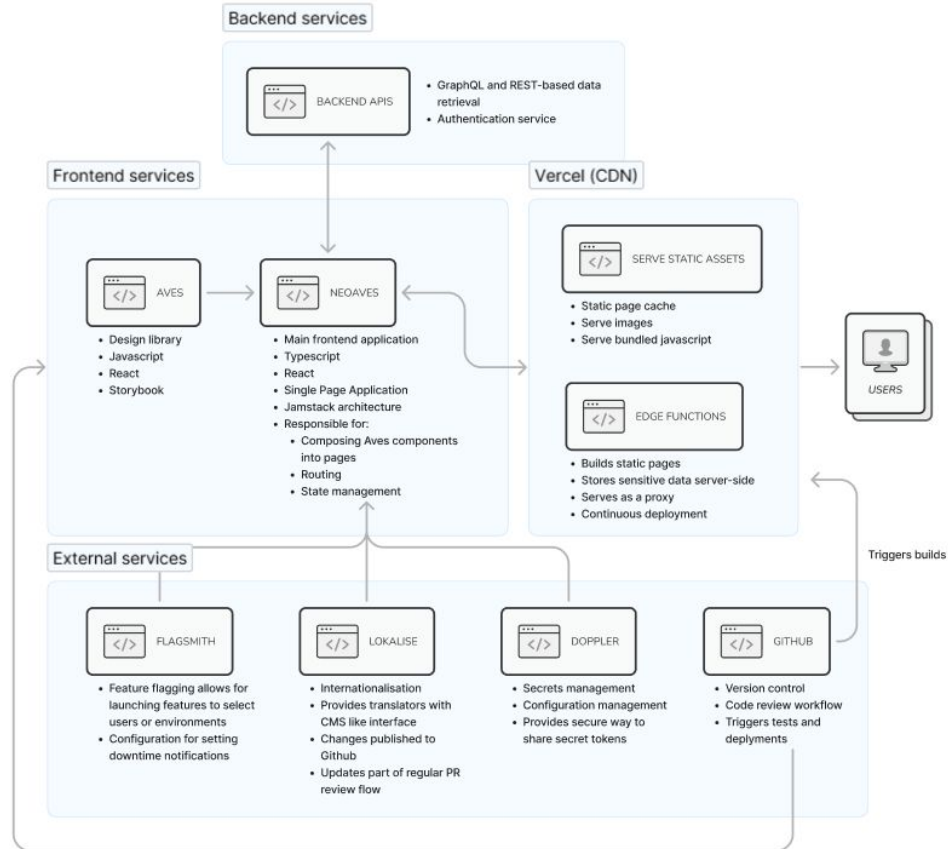
The Technology Stack (back-end)

The Technology Stack (front-end)

Component library

Front-end application

The Technology Stack (front-end architecture)

Backend services

BACKEND APIS
- GraphQL and REST-based data retrieval
- Authentication service

Frontend services

AVES
- Design library
- Javascript
- React
- Storybook

NEOAVES
- Main frontend application
- Typescript
- React
- Single Page Application
- Jamstack architecture
- Responsible for:
  - Composing Aves components into pages
  - Routing
  - State management

Vercel (CDN)

SERVE STATIC ASSETS
- Static page cache
- Serve images
- Serve bundled javascript

EDGE FUNCTIONS
- Builds static pages
- Stores sensitive data server-side
- Serves as a proxy
- Continuous deployment

USERS

External services

FLAGSMITH
- Feature flagging allows for launching features to select users or environments
- Configuration for setting downtime notifications

LOKALISE
- Internationalisation
- Provides translators with CMS like interface
- Changes published to Github
- Updates part of regular PR review flow

DOPPLER
- Secrets management
- Configuration management
- Provides secure way to share secret tokens

GITHUB
- Version control
- Code review workflow
- Triggers tests and deployments

Triggers builds

Share-VDE: Infrastructure

Virtual
Discovery
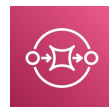Environment

powered by aws

Amazon EC2

Amazon Relational Database Service (Amazon RDS)
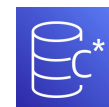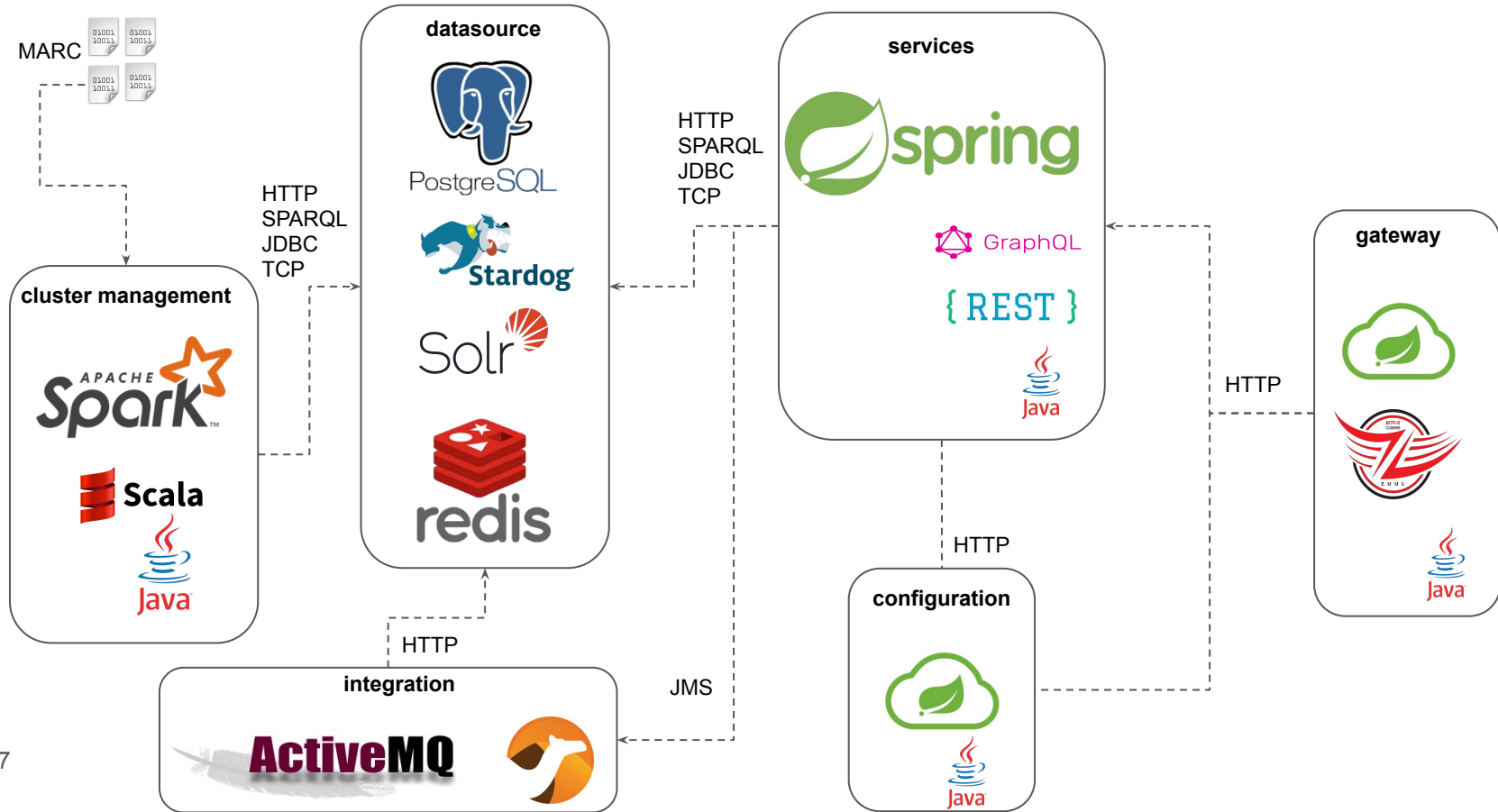
AWS Lambda

Amazon Simple Queue Service (Amazon SQS)

Amazon EMR

Amazon Keyspaces (for Apache Cassandra)

Back end: High level component diagram