Introduction to AWS AppSync

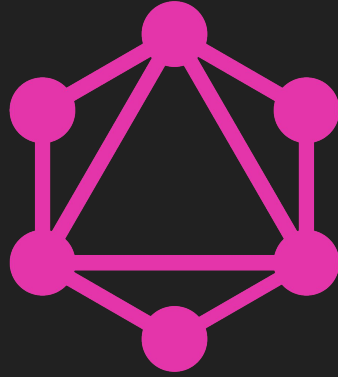A Powerful and Serverless ⚡ GraphQL Solution

Benoît Bouré - About me

- Serverless Developer At Serverless Guru

- Using Serverless Since 2018

- AWS Community Builder

- Maintainer of the Serverless Framework
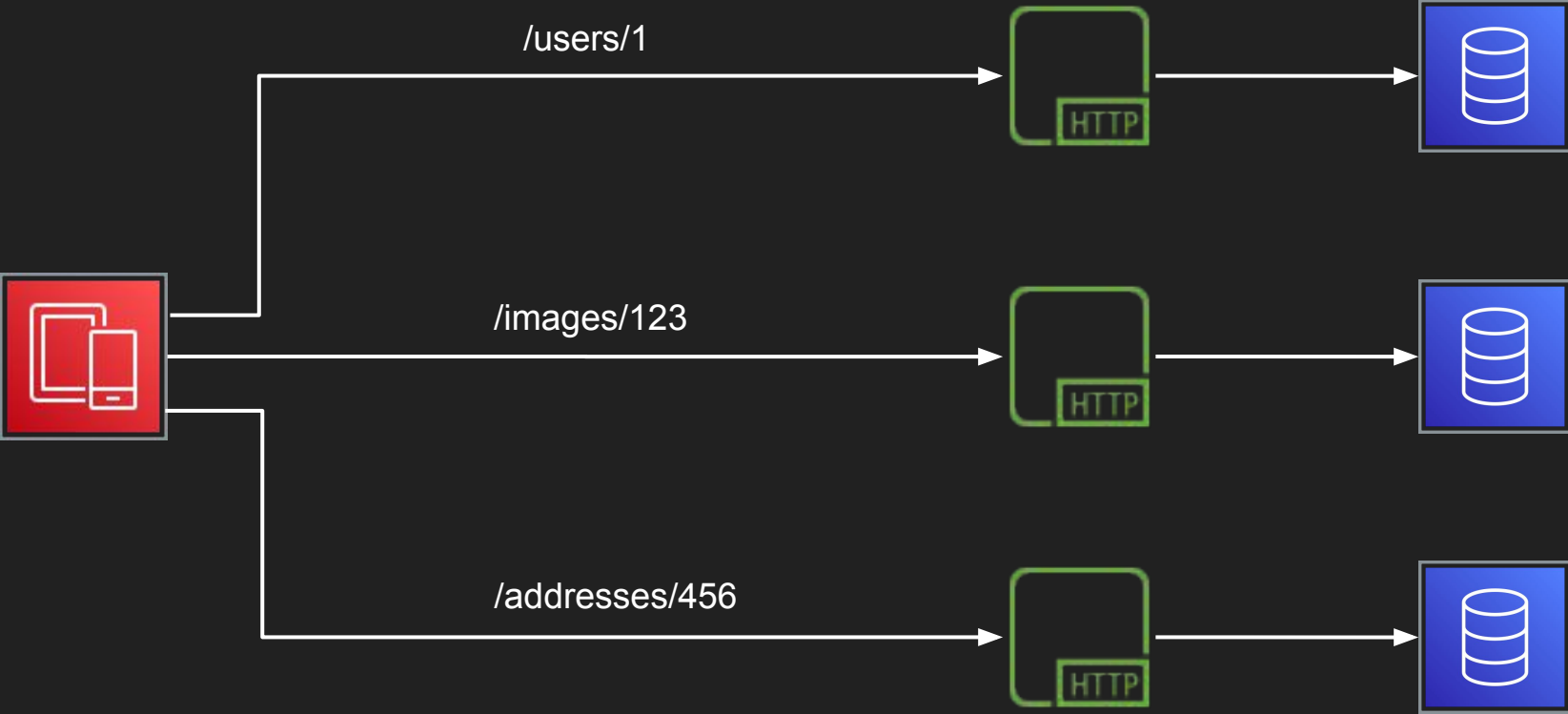 appsync & simulator plugins

- @Benoit_Boure

- https://github.com/bboure

- https://benoitboure.com/

Topics

- Introduction to GraphQL
- AWS AppSync

GraphQL

Traditional (REST) APIs

/users/1

/images/123

/addresses/456
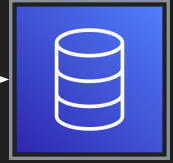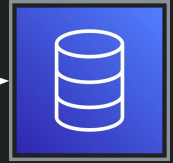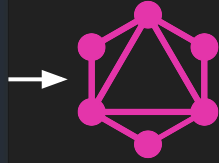
GraphQL

```
query {
  getUser(id: 1) {
    name
    email
    avatar {
      url
      width
      height
    }
    addresses {
      street
      postCode
      city
    }
  }
}
```
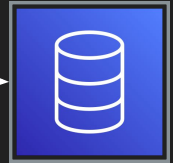
Types of queries

Queries

```
query {
  getUser(id: 1) {
    name
    email
    avatar {
      url
      width
      height
    }
    addresses {
      street
      postCode
      city
    }
  }
}
```
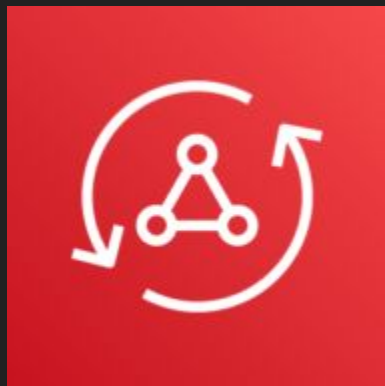
Mutations

```
mutation {
  createUser(
    user: {
      name: "John"
      email: "john@example.com"
    }
  ) {
    id
    name
    email
  }
}
```

Subscriptions (Pub/Sub)

```
subscription {
  onUserUpdate(id: 1) {
    name
    email
  }
}
```
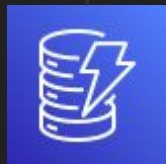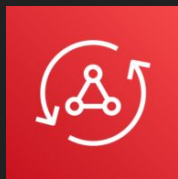
AWS AppSync

What is AWS AppSync (and why you should use it)?

- Fully managed GraphQL service by AWS
- It's Serverless! (Pay per usage)
- It scales!

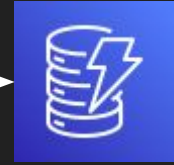# Data sources

Resolvers

```
{
  getUser(id: 1) {
    name
    email
    avatar {
      url
      width
      height
    }
    orders {
      date
      total
    }
  }
}
```
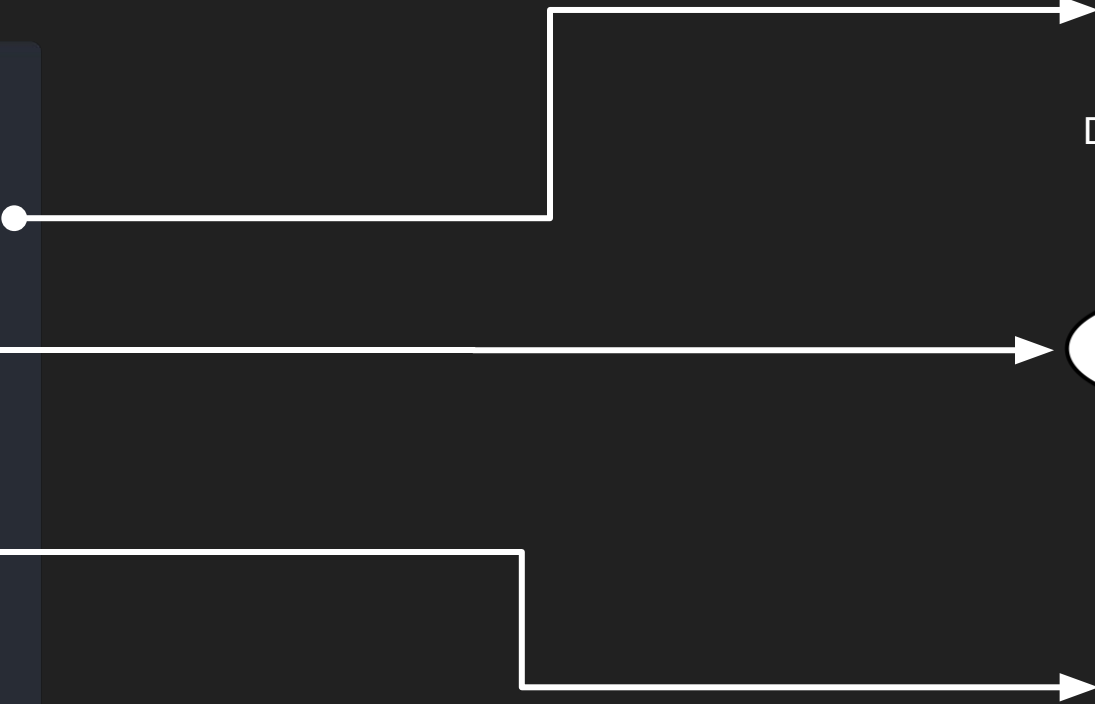
DynamoDB

http://

Lamda

Authentication & Authorization
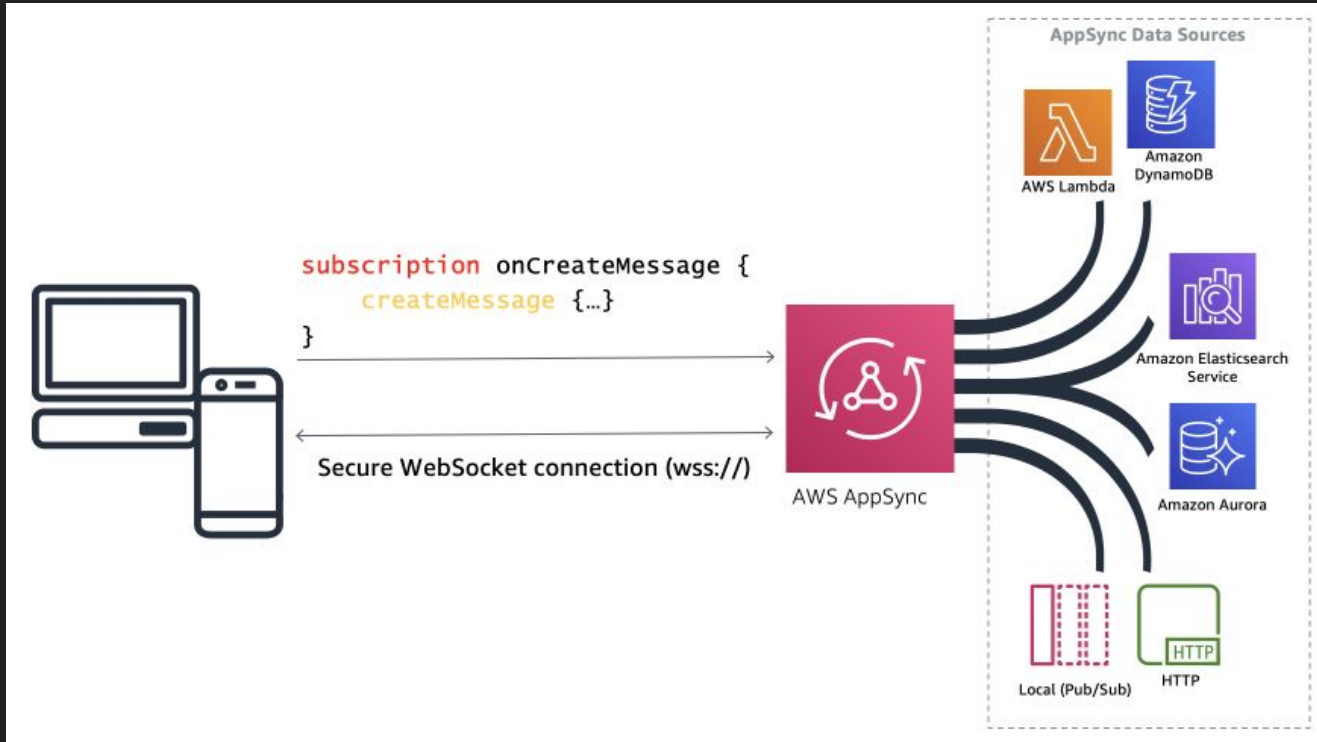
Cognito

IAM

OIDC

API Key

Lamda

Subscriptions (Pub/Sub)

Cache

- In-memory caching capability
- Full request or per-resolver cache
- Caching keys: Arguments and user identity
- Time-to-live: up to 1 hour

Developer tools

Deployment

- Amplify CLI
- AWS SAM
- CDK
- Serverless Framework
- CloudFormation

Client-side libraries

- AmplifyJS
- Apollo Client
- graphql-code-generator

Thank you!
ありがとうございました!

@Benoit_Boure

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