



AWS AppSync

- AppSync is a managed service which uses *GraphQL*
- It is used for building APIs on AWS which use *GraphQL*
- *GraphQL* makes it easy for applications to get the exact data they need. This includes combining data from multiple resources
- Datasets behind *GraphQL* can include:
 - NoSQL data stores
 - RDS databases
 - HTTP APIs
 - etc.
- AppSync integrates with (resolvers) DynamoDB, Aurora, Elasticsearch, etc.
- Supports customer resources using Lambda
- Provides support for real time data retrieval using WebSocket or MQTT on WebSocket protocols
- Mobile applications: replacement for Cognito Sync
- Requires a GraphQL schema for getting started
- Example for GraphQL schema:

```
type Query {
  human(id: ID!): Human
}

type Human {
  name: String!
  appearsIn: [Episode]
  starships: [Starship]
}

enum Episode {
  NEWHOPE
  EMPIRE
  JEDI
}

type Starship {
  name: String!
}
```

Security

- Four ways we can authorize applications to interact with AppSync:
 - API_KEY
 - AWS_IAM
 - OPENID_CONNECT (OpenID Connect provider/ JWT)
 - AMAZON_COGNITO_USER_POOLS
- For custom domain & HTTPS, use CloudFront in front of AppSync

