
What is all the fuss about GraphQL



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My Intro

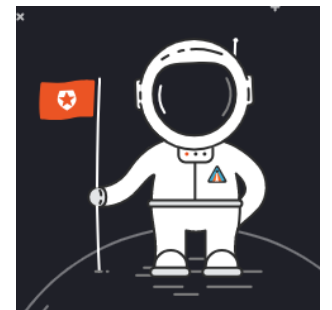
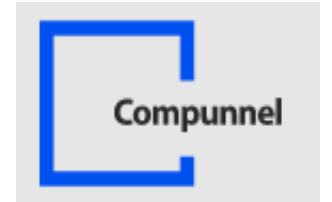
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Agenda

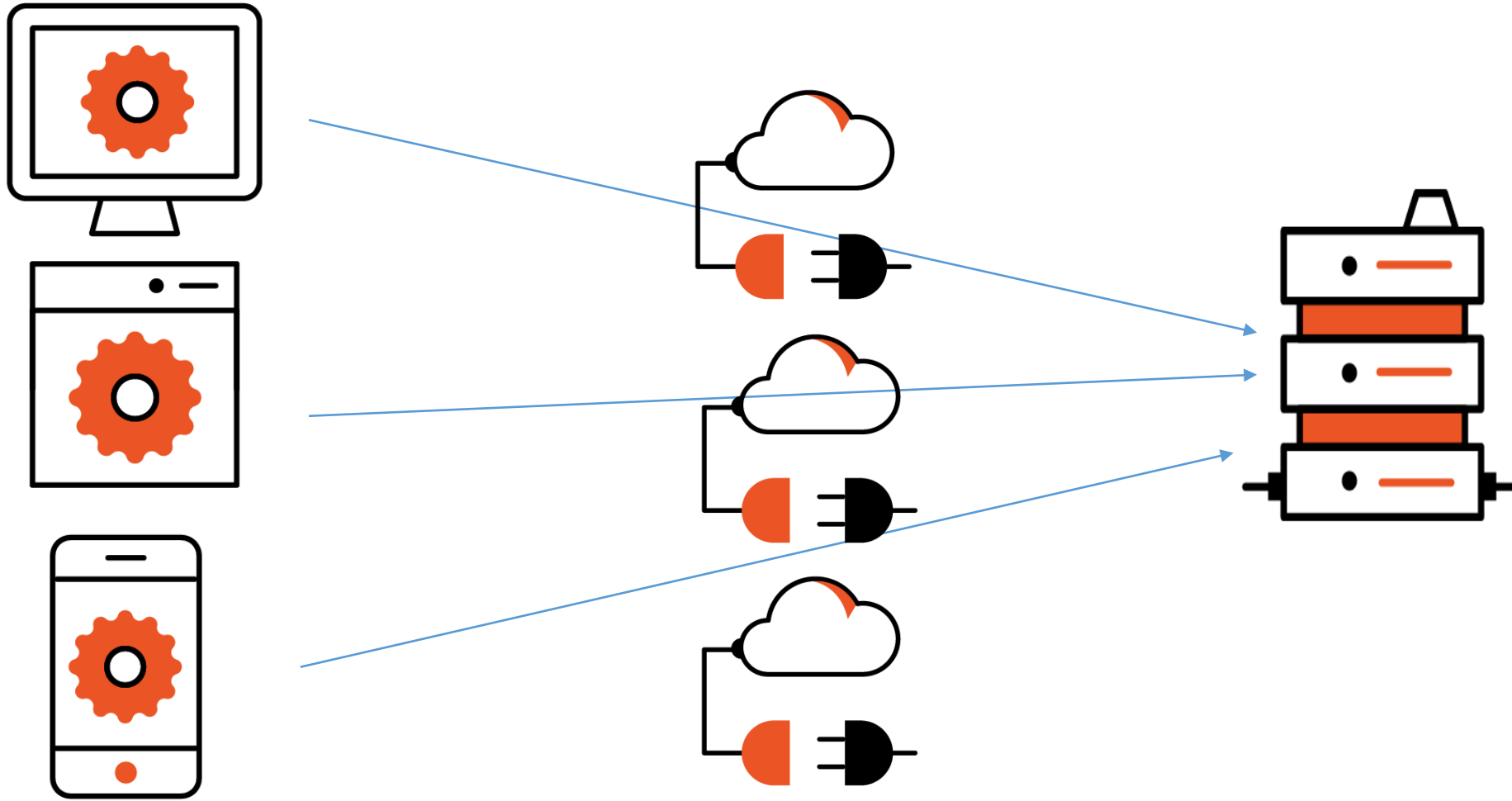
- History of API Architectures and Clients
- Overview of Graph QL
- GraphQL Supported Platforms
- Overview of GridSome
- Demo of Blog to GridSome
- Further Resources for Learning

Graph Database

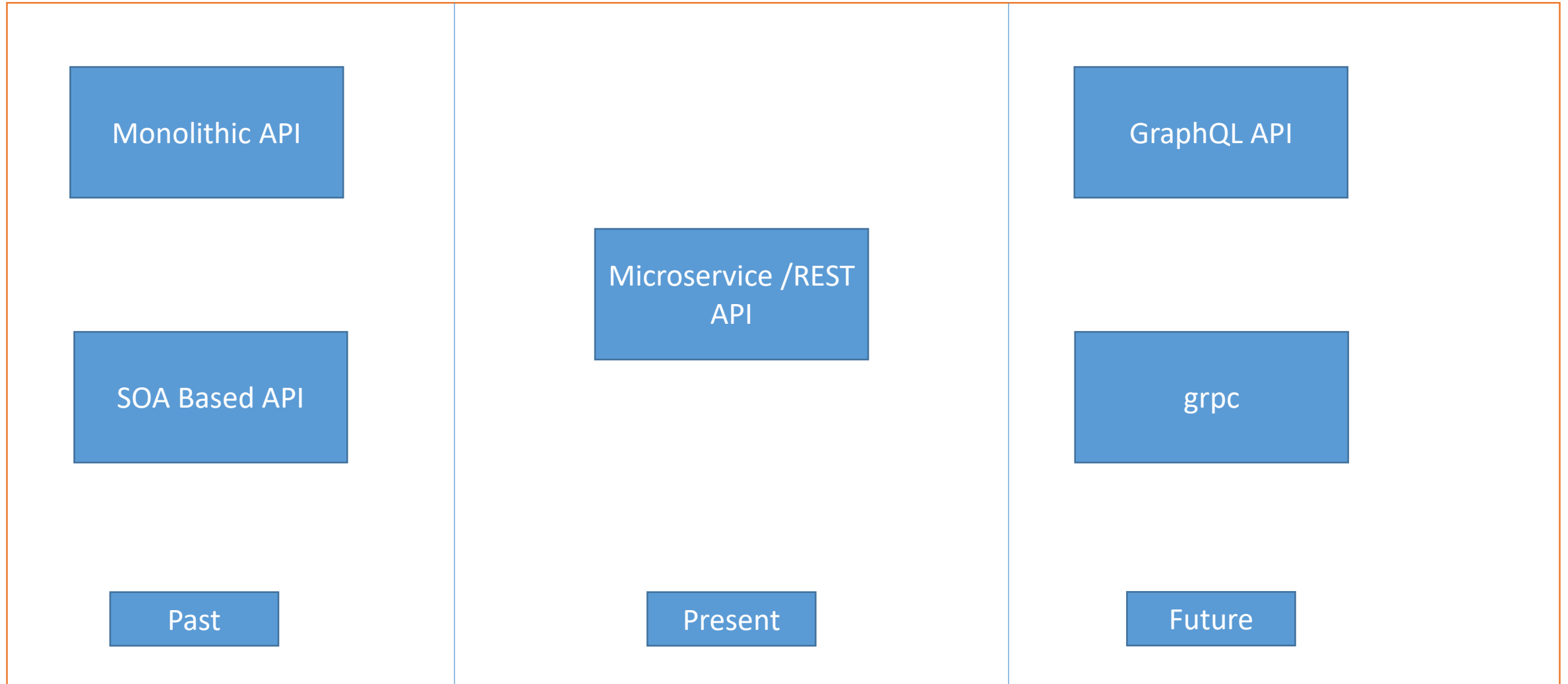


GraphQL

Evolution of Clients



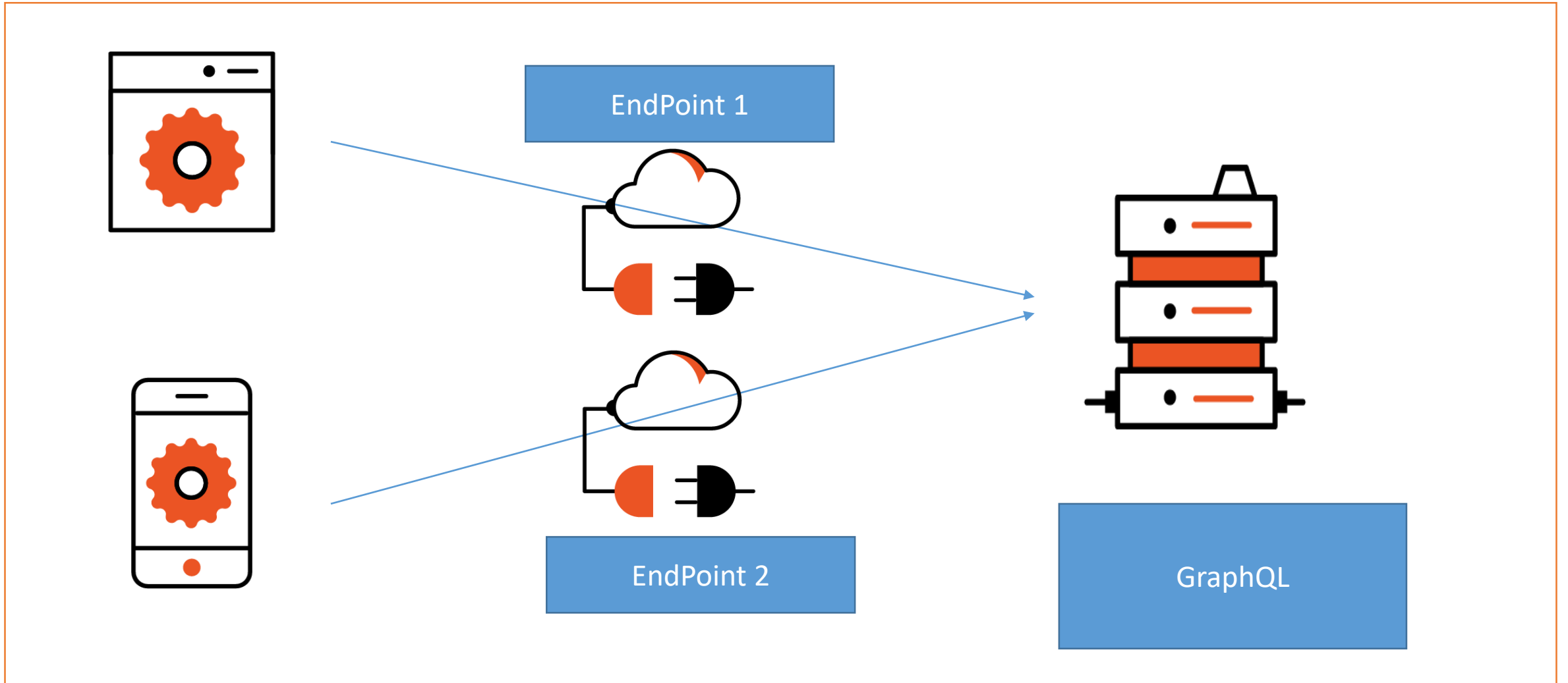
History of Architectures



Common Problems in REST API

- REST API helps to solve many scenarios.
- As the functionalities change, the endpoints change.
- Different clients expecting different results would result in endpoint change.
- API might be returning major chunk of whole table, and this comes with a cost to network.

Common Problems in REST API



Overview of Graph QL

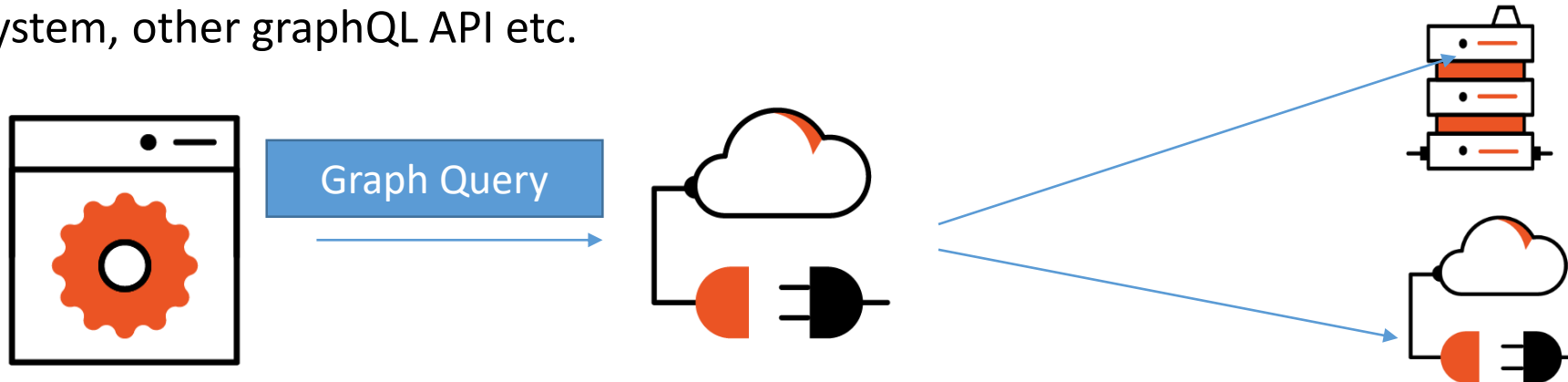
- Graph QL is maintained and open sourced by Facebook Engineers.
- Graph QL is declarative data query language
- Specify what you want and get the same
- Reduce Round Trips between client and server
- Makes development easy and respond to changes soon
- Graph QL can be implemented in any language of choice and architecture of choice.
- C# / .NET, Clojure ,Elixir, Erlang , Go, Groovy, Java, JavaScript, PHP, Python, Scala, Ruby

Overview of Graph QL

- Traditional SQL is used to query database.



- Graph QL can be used to query anything. Client sends query to API and API can query database, filesystem, other graphQL API etc.



GraphQL vs SQL

GraphQL	SQL
Query	Select
Mutation	Insert, Update, Delete
Subscription	

GraphQL vs SQL

- Query in GraphQL is set of string sent in the json body.
- Fragments can be used to define reusable columns



The screenshot shows the GraphQL Playground interface. At the top, there's a header with the text "GraphiQL", a play button icon, a "Prettify" button, and a "< Docs" link. The main area is split into two panels. The left panel contains a GraphQL query:

```
1 {  
2   hello (name:"Welcome Cincy Deliver 2019")  
3 }
```

Below the query editor is a section labeled "QUERY VARIABLES". The right panel shows the JSON response:

```
{  
  "data": {  
    "hello": "Hello Welcome Cincy Deliver 2019"  
  }  
}
```

GraphQL vs SQL

- SQL

```
select empname, department from Employee where employeeid = 5
```

- Graph QL

```
{
```

```
  employee(employeeid : 5) { empname
```

```
    department}
```

```
}
```

GraphQL vs SQL

Mutation in GraphQL is used to perform data changes.



GraphQL vs SQL

- Subscriptions is used for detecting changes to data
- These provide a way to get real time updates using web sockets
- In SQL we will not be able to get the change notifications directly to client, it would involve multiple hacks using Signal R and other libraries.

Graph QL Platforms

- There are different Graph QL clients like Relay developed by Facebook which couples well with React and React Native
- Apollo Client is another popular client which is framework agnostic.
- Hasura provides Graph QL on top of Postgres and there are certain limitations compared to Apollo.

What is Gridsome

- Gridsome provides GraphQL support to Vue Js. It has been inspired from Gatsby which is for React World
- Gridsome can be used to develop PWA applications and static sites using markdown
- Gridsome provides JAMstack support to Vue Js world

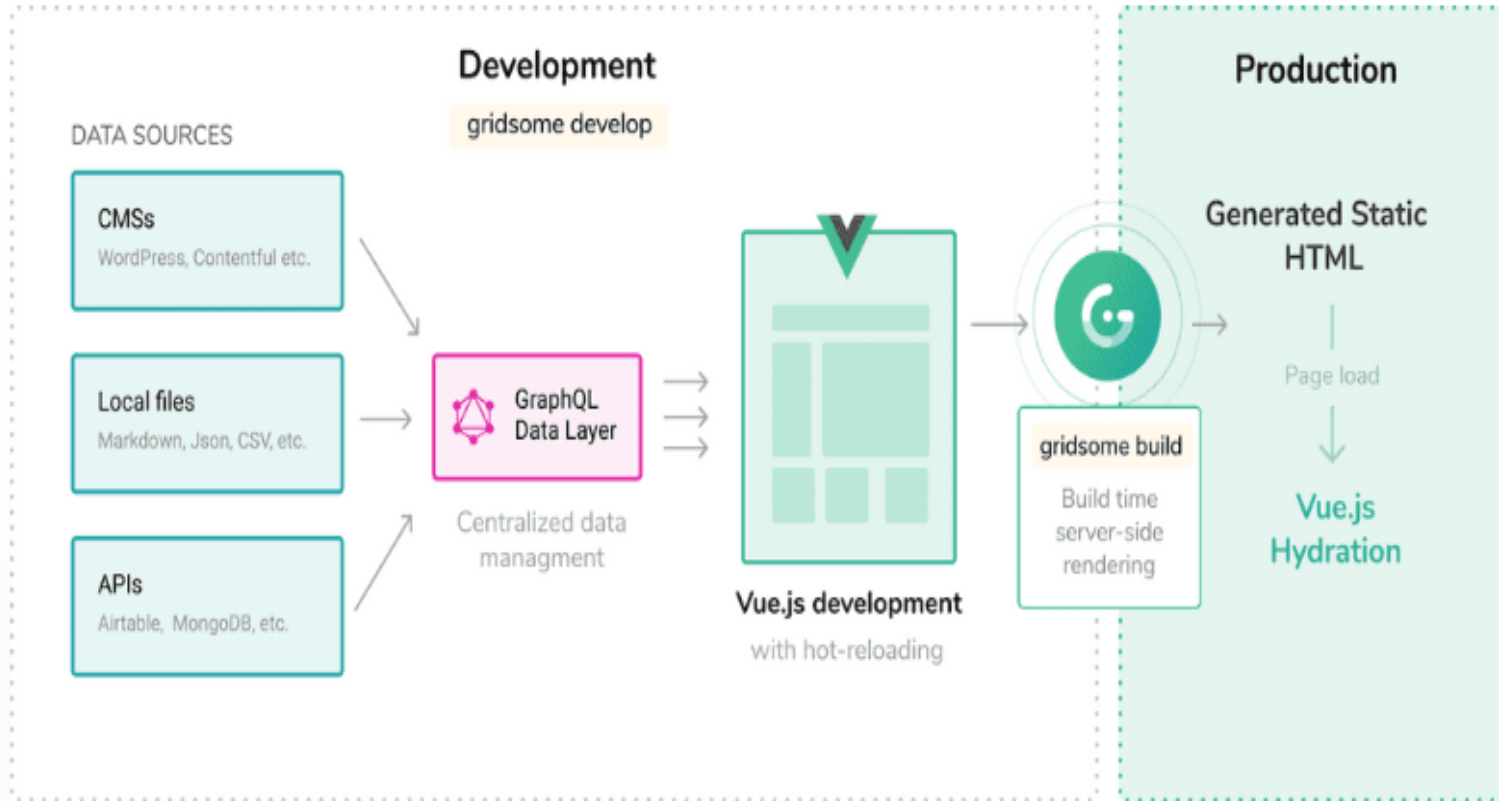


What is Gridsome

- Easy to get started and learn
- Knowledge of HTML, Vue and JavaScript and Node Js
- In Gridsome pages are created using Vue Components
- Gridsome supports routing by page name.

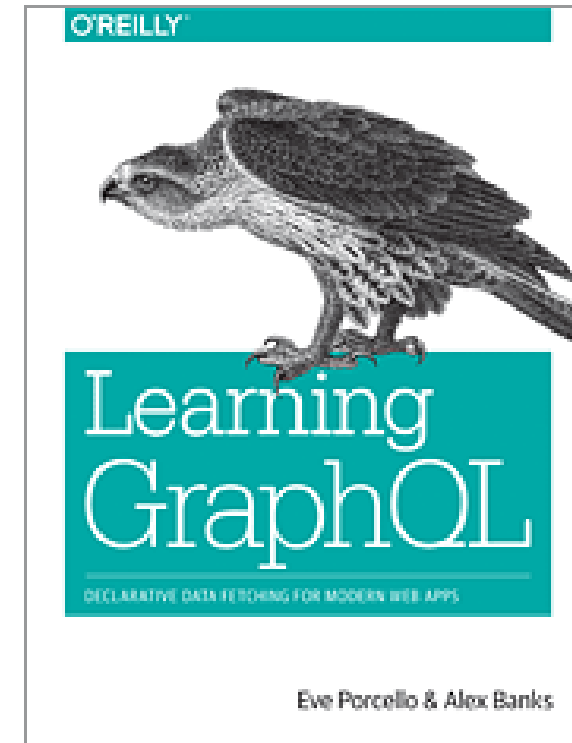


What is Gridsome



Reference

- <https://gridsome.org/>
- <https://graphql.org/>
- <https://www.graphqlbin.com/v2/new>
- <https://jamstack.org/>
- <https://identicons.dev/> Server, API and Other Images by Auth0



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Thank you Cincy Deliver 2019

Questions



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