Configure One GraphQL API

GraphQL is a query API language that makes it easy to access, monitor, and modify data through an easy to use interface. A modern and performant API built with efficiency and flexibility at its core, GraphQL allows you to make a single targeted request to get exactly what you need from a single endpoint without over-fetching. It gives you the ability to leverage Configure One throughout your enterprise.

Efficient data access

Get all of the data you from multiple resources using a single request. Since GraphQL let's you define the scope, there's no over-fetching of data.
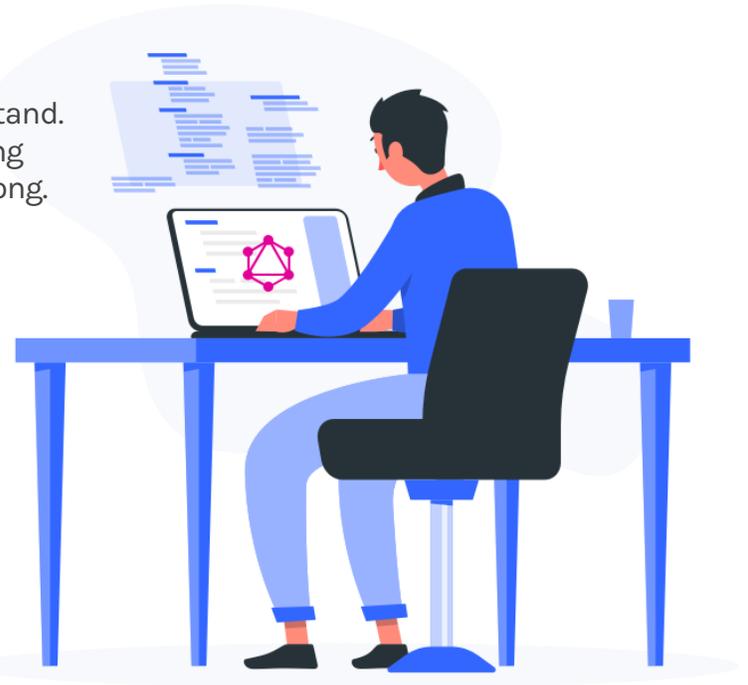
Predictable result sets

All of the data returned from your queries is formatted as a standard JSON object. The content of the results matches the shape of the original request, so you always know what you're getting back.

Meaningful error messages

Save countless hours on troubleshooting with helpful error messages that are easy to understand. No more looking at documentation and stepping through code just to understand what went wrong.
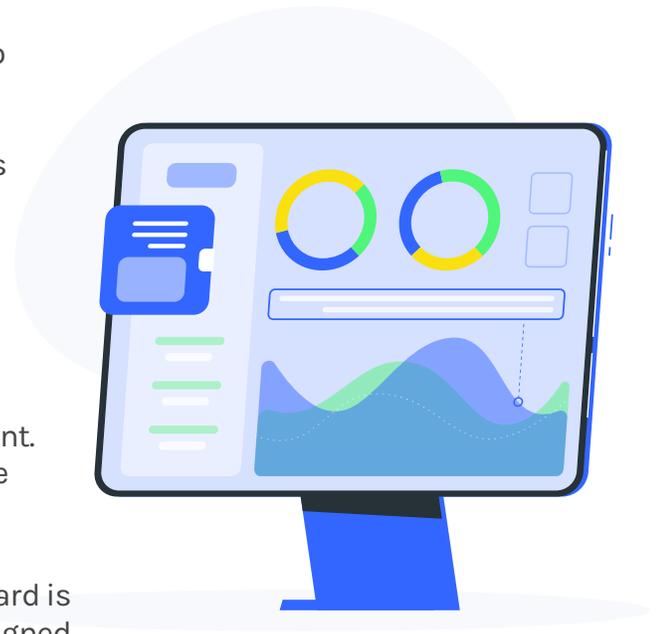
Smoother API versioning

GraphQL APIs can be updated without affecting your existing requests. When fields are added, edited, or deprecated, you don't need to update your code to keep it working.

What is GraphQL?

GraphQL is a query API language that makes it easy to access, monitor, and modify data. It acts as an intermediary between the application database and both internal and external requests. GraphQL replaces the need for traditional REST APIs that tend to be inefficient and hard to maintain.

Efficiency and flexibility are built into the DNA of GraphQL. Instead of relying on a multitude of REST endpoints, GraphQL lets you make a single targeted request to get exactly what you need from one endpoint. Results are delivered as a JSON object using the same structure defined in the query.

Originally developed by Facebook, the GraphQL standard is now managed by the GraphQL Foundation. It was designed to overcome the challenges associated with RESTful web services, and to optimize data for mobile devices.

REST vs. GraphQL

Although they still have much in common, there are a few areas where GraphQL offers significant improvements over REST:

REST	GraphQL
■ Multiple endpoints	■ Single endpoint
■ Multiple round-trips required to access different entities	■ Single request to access everything you need at once
■ Fixed responses result in over-fetching data	■ Precise queries return exactly what is requested, nothing more
■ Weak data typing can cause unpredictable results	■ Strongly typed schema defines how data can be accessed
■ Generic error codes	■ Detailed error messages
■ Versioned endpoints require modifying existing code when the API is updated	■ Fields can be added, updated, and deprecated without affecting existing work

What can I do with GraphQL?
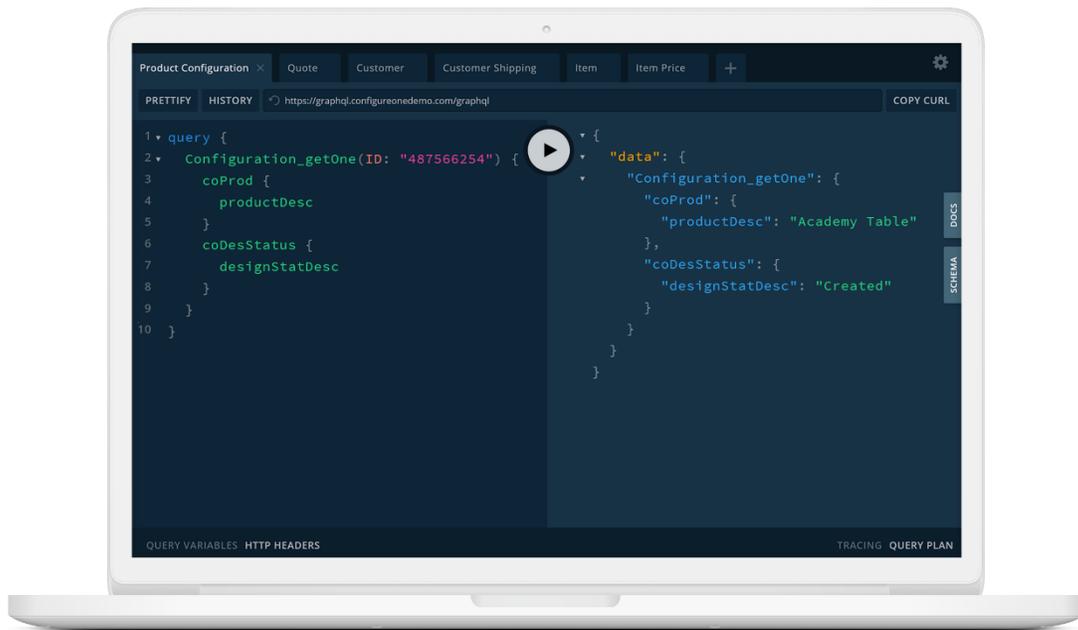
There are three basic operations with GraphQL:

- **Read:** Request database data with *queries*
- **Write:** Modify database data with *mutations*
- **Monitor:** Receive updates when data changes with *subscriptions*

These simple functions can be used to:

- Query data for reports or to send to other business systems
- Monitor orders to run new reports whenever an order is created
- Push data into Configure One from other business systems
- Modify pricing for configurations, quotes, or orders using external programs
- Automate the creation quotes, configurations, and other entities

Configure One Query API

We are the first in our industry to adapt GraphQL and make it available to our customers through the Configure One Query API. A browser-based interface allows you to visualize the API documentation and all available options while developing queries that fit your business needs.

Configure One is a leading provider of web-based product configurator and CPQ (configure, price, quote) software. Configure One enable companies both large and small to increase revenues and decrease costs by automating the way they sell and process orders for configurable, multi-option, and customizable products.

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