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APIBRIDGE

What is APIBridge?

DigitalCreek APIBridge is a software solution for sharing datasets between multiple Application Programmable Interfaces or APIs for short. That may be a lot of words, so let's just break it down with a simple example. Let's say, you have a CRM system that accepts automatic data insertion with an API.

But in this case, the data comes from a Vendor, who also provides an API for querying records. How do you connect the two together? This is where APIBridge comes into play. APIBridge can act as a middleware solution between the two APIs, making data transfer possible between the Vendor API and the CRM automatically.

Module System, developer utilities

As the system is highly modular, and the jobs can also call modules at runtime, customised automatic background data processing is possible. Modules also go much further than just jobs. In this case, they can be used for custom embedded data views for each API, defining obscure authentication standards, custom data processing and so-on.

We provide a small internal API for writing modules with some predefined methods for making development easier. Some boilerplate module code is also available in the project directory, aiding development further.

APIBRIDGE

The goals of APIBridge

Ease of use

APIBridge was built with ease of use in mind. We want to make it user friendly with a system like this to configure multiple APIs for data transfer purposes.

Standardization

Even though standardization is a daunting task, you could even say impossible between many different APIs, we strive to provide a configuration interface that is standardized between all APIs, supporting custom headers and multi-request authentication techniques like OAuth2. This standardized configuration supports most APIs for basic data transfer purposes.

Modularity

APIBridge is a highly modular, API configuratored Module that contains the entirety of the data transfer end of the system. Custom modules can redefine almost all core aspects of communication on a per-API basis. Developing custom requests, data processing, and or views where possible..

Automation

The most important goal of APIBridge is transferring data between APIs automatically. This makes for a more hassle free experience, as you don't have to migrate data between two systems manually.

Portability

At its core, APIBridge uses Laravel, Docker and MariaDB along with many more modern technologies, meaning it can be easily scaled or even migrated to a different environment. Docker also allows APIBridge to run under nearly any operating system, while being relatively simple to set up.

Data mapping and migration

APIBridge also features a flexible data mapping engine, which makes migrating or mapping large datasets between differently structured databases possible. This mapping engine also allows us to match data between different APIs and store it all in one place. The mapped data can also be used another datasource for updating another API, like for example your CRM.

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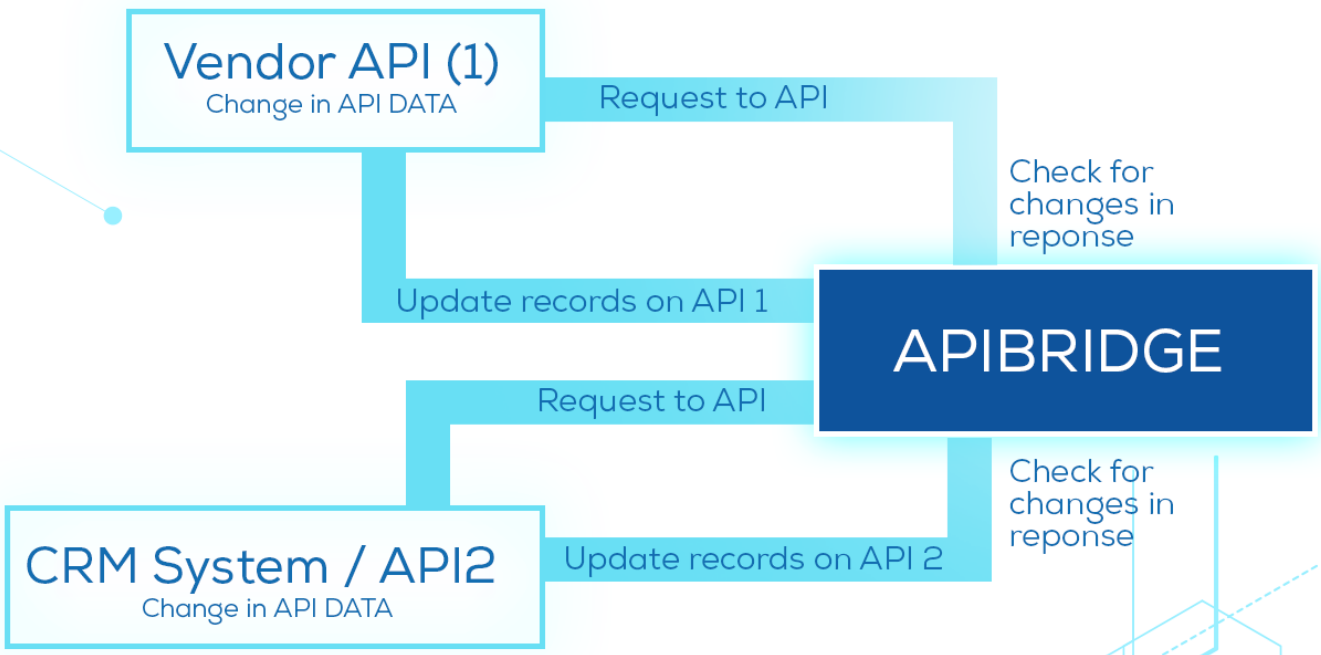
DATA MIGRATION

How APIBridge works

APIBridge runs several docker containers on a given server. Two of which are responsible for running a queue and a custom queue management daemon in the background.

The daemon manages the queue, and enqueues user-defined jobs at set intervals, which handle data processing, synchronisation, and/or data mapping. A typical bi-directional daemon synchronisation scenario between two APIs looks like this:



Background daemon flow