

How to Improve the Customer Experience with Custom API Integration

by Amber Iven - Monday, July 06, 2020

<https://www.searchbug.com/info/custom-api-integration/>

When it comes to keeping up with competitors, the customer experience is everything. Custom API integration can help. Your business can't run without customers and you can't gain and retain customers if your systems aren't user-friendly.

Developers use custom API integration to improve the customer experience. They do this by seamlessly connecting data from outside sources to your own website as well as allowing data to be retrieved within your own server.

Think of an API like a waiter at a restaurant. Customers communicate their orders to the waiter who sends those orders to the kitchen who prepares those orders and sends them back to the customers.

The customers are your users on your website or app. When users need to perform an action, such as checking updates, logging in, paying, etc. (we'll cover examples of requests later), that gets communicated to your API which communicates with an outside source to bring that requested information back to your users on your website.

APIs are at work every day. You interact with them almost everywhere online although you may not realize it. In this article, we cover the different types of APIs, common examples of APIs, and how a custom API integration can work for you.

Important API Terms

An Application Programming Interface (API) is a method of communication between software components. This can be within your own server or with outside servers. There are different types of APIs and different types of protocols. Here we cover some common API-associated terms to help explain what they are and what they do.

Types of APIs

An **open API** is available to the public with little restriction. Say you have an API that communicates between your backend systems and your website or application, but third parties also have access to that API. An example of an open or public API would be Yahoo's search engine that can be used within another website or app's software application. You've probably seen these before.

Searchbug offers [APIs](#) to our users for a variety of purposes such as finding contact information and verifying data. These APIs are public because they are available for use on the Searchbug website but can also be integrated into users' own websites and apps to keep database records up to date and to combat

against data silos (more on this later).

Partner APIs are semi-open. They aren't available to everyone, but to strategically chosen and on-boarded partners. This might be the case in instances where a business collects data and sells it to other companies, or partners, who need access to the data to provide their users with real-time information. Businesses that use partner APIs have found ways to monetize the data they collect for their own processes.

Private APIs, then, are for use within the business itself. These enable a business's systems to communicate with each other to avoid data silos, therefore helping the business run more efficiently and creating a unified customer view.

Finally, you have **composite APIs** which combine multiple data or service APIs (below). Where the average API receives one request and sends one response, a composite API receives multiple requests and sends one response. An example of a composite API is a shopping cart on a website: the shopping cart API receives a number of requests such as customer profile, order creation, added items, order status, etc.

Data and Service APIs

Data APIs share data across software and cloud technologies, for example, an open API or partner API. They provide Create, Read, Update, and Delete (CRUD) access to SaaS. In other words, data APIs receive third party requests and send the appropriate responses based on the information in the host database.

An example of an **internal service API** would be a private API: this API type accesses information from different databases (or silos) within your company to produce a single, unified output or response.

When different departments within your business have access to different datasets, this creates data silos. That makes it difficult for the system to create a unified customer profile which in turn complicates the user experience. Data must be unified so that a user's experience is specific and personalized. APIs help by communicating between these silos.

An **external service API** is a third party API that you access on behalf of your business to improve your processes and user experience. For example, say you have a travel app or website that pulls related weather data from a third party website like weather.com.

Their API, then, might be open or partner which allows you to access their database. Searchbug's APIs fall into this category as well; anyone who uses them to improve their processes uses these external service APIs.

App developers use composite APIs to improve **user experience APIs**, therefore, creating a seamless user experience across multiple devices. Consider the shopping cart example from above: the display and API response code is different from desktop to mobile. Other examples of user experience APIs are virtual private assistants (VPAs) like Cortana and Siri and chatbots.

API Protocols

Protocols are the instructions APIs use to perform their function. They dictate what data is retrieved and how it's communicated. There are three: RPC, SOAP, and REST. **Representational State Transfer (REST)** APIs are the most preferred by developers and are the most common open or public APIs.

REST APIs are more flexible than RPC and SOAP. They provide the best client-server experience: a change on one end doesn't affect the other.

APIs in Action

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Just opening your web browser and searching for a website address is an API at work. Your browser uses an API to deliver that website to you.

Many websites, like Yahoo, for example, provide data that goes beyond the scope of their service offerings. Once on Yahoo's server, you not only have access to your emails but also to, say, weather data for your geographic location. Or local news. It's an API that allows you to view third party data all in one place.

Another common use for APIs is for login purposes. If you need to register or login to a website, you'll probably be offered the option to use your existing Google, Twitter, or Facebook profile (an external API). Data sharing allows users to quickly and easily transfer data and be authenticated.

Booking sites like Expedia or Kayak use partner APIs to find vacancies and compare them without you ever having to leave their website. Booking sites like these are so popular because they save users time and money; the API gathers and compares data in real-time to provide users the best experience possible.

Then there's the [PayPal API](#). Communication between a retailer's site and PayPal allows users to transfer payment and shipping information without having to upload it to each site every time. Again, this is extremely convenient for the user and simplifies the process.

[Twitter's API](#) uses bots to offer updates and notifications regarding users' personal preferences. The API receives the request when a user follows someone new and responds with related, automatic tweets. These notifications are examples of user experience APIs.

Data Integration Services and Custom API Integration

It's probably obvious by now how lucrative APIs can be for a website. Twitter, for example, might have the leg up on the competition by being able to provide its users with updates for multiple other platforms all in one place, therefore saving the user time and energy.

By integrating data from third parties onto your site, you improve the customer experience and keep them on your website. The good news is that there are many [data integration services](#) that already exist for you to use. You can create custom APIs, but it might require some heavy lifting.

An API is like a waiter: it receives requests and sends responses. No restaurant has just one waiter on staff. You probably need a number of different APIs both within and outside of your own server. You might start with one but grow to need another. Your browser even has the ability to communicate with another server bypassing your own (a "Let me speak to your manager" situation if you will...).

Remember, there are different types of APIs. Your custom API integration doesn't have to be external. Internal APIs still improve the user experience by improving your own processes and connecting data that might be siloed.

The point is, APIs are essential to enhancing the customer experience. Like the examples above illustrate, APIs allow information to be accessed quickly and presented appropriately.

Building your own requires time to plan, design, document, and develop. It also requires a bit of coding, but it can be done pretty simply if you follow the steps and best practices laid out by experts on the web.

If you decide you'd just like to have a custom API built for you, that's an option as well. Searchbug builds [custom APIs](#) specific to your data needs. Just let us know what data you have, what data you need, and we'll give you a quote!