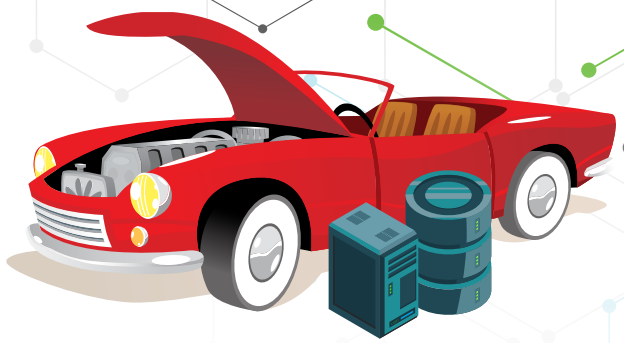
ProShip

[Expert Exchange] Carrier APIs vs. Certified Carrier Engines

How do carrier APIs differ from certified parcel compliance engines?



"What's that baby got under the hood?" You may have had someone ask that about your car, but has anyone ever asked that about your shipping software? Well, probably not, but maybe this is a question you should ask yourself.

The meteoric rise of e-commerce has presented shippers with numerous challenges as they seek to meet customer delivery expectations, minimize costs and get packages out the door as fast as possible. This accelerates the need to make wise choices in technology that will support parcel rating and shipping operations. While there are a number of factors to consider when choosing multi-carrier shipping software, what's "under the hood" is one of the most important aspects.

When it comes to a technology engine that drives parcel carrier compliance, developers have options. Parcel carriers offer free online APIs that can be used to obtain shipping rates, print shipping labels and provide manifest information. The temptation for developers to leverage this free technology from the carriers is strong. In creating a multi-carrier shipping solution, many choose to simply aggregate carrier APIs together, creating a system that, while functional, leaves a lot of performance on the roadside.

The other option is for developers to build parcel compliance engines from the ground up in accordance with the carrier specifications. This is an intensive process that requires a provider to go through a rigorous certification with each carrier. However, if done right, the result can be a powerful parcel engine that, when installed into your shipping operation, will have it owning the highway.

So, what advantages does a vendor's certified parcel compliance engine bring to your shipping solution?

Performance.
Licensing an installable parcel compliance engine allows you to place it where you will get the best response times, most often as near as possible to the integrated host system (OMS, ERP, WMS). This minimizes network latency and gives you control over the system resources that fuel the solution's performance. The result can be millisecond response times for rating and shipping transactions. By contrast, we have seen Internet-hosted carrier APIs that take up to ten seconds to return a response – an eternity when you are waiting for a label to print in your automated, high-volume shipping operation. At first glance, you may think that split-second execution doesn't matter. If so, you need to check out our article on all the reasons why your shipping software isn't fast enough.

Reliability.
A solution built on carrier APIs is at the mercy of the carrier's technology infrastructure. The carrier APIs can and do go down periodically. If you can't ship, you're not doing business. Carrier APIs are an asset shared by tens of thousands of other shippers, all vying for the same system resources. Downtime and peak season lulls can be expected – more reasons why it's better to be in the driver's seat than the back seat.

Carrier portfolio.
Believe it or not, the carriers are often the last ones to make their new service offerings available in their API stack. If you are in discussions with a carrier about implementing a new delivery service in their portfolio, you need to make sure your shipping system can support that service. In many cases, you may be surprised to find out that the answer is no. This is often because the system relies on the carrier APIs, which have yet to implement that service. On the contrary, carrier compliant software vendors can be more nimble in their development cycles, with shorter rollout times for support of new carrier services.

Solution capabilities.
A carrier API is a simple request-response interface. Ask it for a label, and it will return a label. Any other functionality that is vital to an integrated shipping solution must still be built around those baseline functions for it to bring real value. This includes components such as rate and transit time comparison logic, a business rule engine, multiple means for retrieving labels, creation of user-defined documents, administrative consoles and reporting capabilities, among others. In short, the system needs to do way more than just broker transactions with pre-existing API endpoints. When choosing a solution, make sure it is a complete system, not one that just aggregates free public APIs.

Support.
The tech support behind the free carrier APIs can be very minimal, with short hours of availability and limited means to communicate with a representative, such as email or web form only. Even if you are working directly with the APIs, this can be a frustrating experience if you need more extensive support. If you are working with a vendor who only implements the carrier APIs, not only must they rely on that same limited support, but the vendor adds yet an additional layer to the support queue. But if you're talking to a vendor who owns the intellectual property that drives your shipping, you are talking directly with the source – an accessible support technician familiar with your own configuration who can do something about your issues from the engine block up. Still not convinced? Read more about what solid shipping software support looks like from one of our top "mechanics".

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There are many other reasons why a vendor's certified parcel engines have advantages over the carrier APIs and would love to have the chance to discuss them if you want to give us a call here at "the shop." And don't get us wrong. The carriers provide a very useful service with their APIs. They are vital for specific functionalities like tracking, or when they are the carrier's preferred way to ensure compliance to their specifications. They deliver on what they were designed to be – a low-cost means to connect lower-volume shippers with unsophisticated requirements to carrier services. But before you hit the road, consider your business' destination and make sure your ride is equipped with the performance options that will take you there.

Statista estimates that by 2026, 266 billion packages are expected to be shipped annually. Shippers now have more options for multi-day, next day, even same day delivery than ever before, and customer expectations are rising accordingly. New technologies are emerging that will revolutionize the supply chain and the customer experience from cart to delivery.

In short, it's going to be a fun ride. Make sure you have enough horsepower to drive your business forward. Road trip, anyone?

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