Power Online Stores with an Ecommerce Tech Stack Built for Success
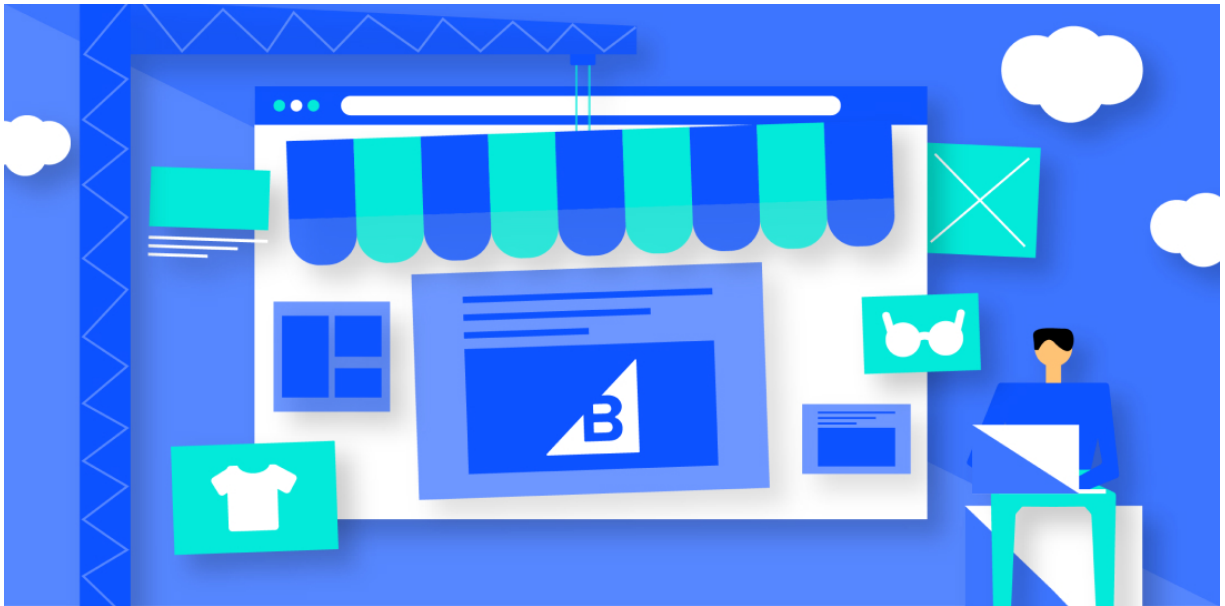

Broadly, ecommerce tech stacks aren't too dissimilar from other industries. Ecommerce stores and businesses such as financial services or healthcare all share the common need to have digital tools that help run the company.

What makes the typical ecommerce tech stack unique, however, is the complexity of connected systems and the speed of business.

An online store has to interconnect payments with fulfilment with customer relationship management (CRM) solutions to create a holistic customer experience. On top of that, the tech stack has to be flexible and malleable enough to enable the company to shift focus on a dime.

Globally, the number of online buyers is more than 2.6 billion people. That's a lot of different users with different needs putting pressure on your tech stack.

With careful planning and research, a company can build a tech stack prepared for the challenges that come with ecommerce web development.

Key factors for an ecommerce tech stack

Supporting ecommerce stores is big business, with countless providers in the ecommerce industry offering everything from end-to-end solutions to specific functionality for niche markets.

Sorting through all of the apps and plugins and retailers can be challenging, but following these criteria can help steer businesses in the right direction.

Cost.

Not everyone has the resources of Amazon. Your tech stack could include just a handful of ecommerce solutions — or dozens. You should set a firm budget that takes into account your current financial situation and future projections.

Striking the best balance on pricing and the return on investment of what you spend on technology is key.

Compatibility.

In a perfect world, all systems work seamlessly all the time. Of course, that's not true. However, you can tip the scales in your favour by building an ecosystem designed with API integration in mind.

Work with ecommerce brands and products that you know work well together. Only add new systems when you're comfortable and know they're compatible.

Customer support.

Related to the above, compatibility isn't always perfect and sometimes you'll need help to integrate and maintain systems. Third-party vendors with a history of good support should get additional consideration.

Ease-of-use.

You can expect some level of a learning curve, but products that don't require special skills to work with should be preferred. Installation and management should be user-friendly and those working with the tool regularly should be able to "master" the product relatively quickly.

Building a successful ecommerce tech stack

With the sheer number of options in the market, it's not easy to get the right tech stack for your specific business needs. Following this process will at least provide some clarity.

Determine the most important items.

What are your goals as a company? What are you selling? Who is your target audience?

Understanding who you are and what you need most will help guide your decision making. If you're shipping large items, having a robust logistics system is vital. If you're storing sensitive information, there may be some additional security considerations.

Ensure tech stack compatibility.

In theory, most products should work together in a modern IT ecosystem, but that's just a theory thus far. Do your homework before committing to a solution and ensure that different systems will be able to work with one another.

Look for modular architecture.

Modular architecture breaks down complex IT systems into smaller, manageable, and interchangeable modules, with each fulfilling a specific function. This is common practise in modern IT ecosystems that enhances reliability and scalability.

Components of a strong ecommerce tech stack

Ecommerce hosting platforms.

Ecommerce platforms — such as BigCommerce — are the backbone of your operation and keep your online store open at all times. Whether open source or SaaS, these hosting vendors provide the server-side power and storage to keep your site online and accessible.

Ecommerce marketing tools.

Ecommerce marketing is becoming more complex as omnichannel approaches have become the norm. Having a tool that enables you to control sales channels such as social media or email helps streamline marketing operations and provides consistent messaging.

CRM tools.

CRM solutions help you understand your customers better and provide insights on why they make their decisions. Many also allow you to create specific workflows to better attract specific

segments.

Shopping cart tools.

A good ecommerce experience ends with a frictionless checkout experience. Having a shopping cart that is secure and processes multiple payment methods can help increase conversion rates.

Ecommerce website development.

As the name suggests, a website development tool enables you to build your ecommerce platform from the ground up, and may include functions such as a content management system. These are especially popular with new businesses or startups.

Payment gateways.

A good payment processing solution is simple and makes checking out easy. These are merchant services that process credit card payments and should be thought of as an unofficial digital cash register. PayPal is a payment gateway example.

Inventory management.

The bigger you get, the more difficult it will be to manage your supply chain. Most efficient commerce platforms automate this process with a best-in-class solution that combines sales and customer data. Cheque out Feedonomics here.

Customer service software.

Only stores should be open 24/7, which means you may receive customer service requests at all hours. Using a customer service service helps with automation and keeps customers coming back.

Chat software for ecommerce websites.

Often called conversational commerce, chat software allows you to have a real-time human touch — without necessarily having a human. This added level of customer service increases customer satisfaction.

Shipping software.

The final part of the fulfilment process is one of the most complicated parts of running an ecommerce business. Automating as much of your shipping operations reduces errors and

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complexity and gets products to customers quicker.

The final word

Building an online storefront is complicated and full of opportunities for errors. However, having a back-end built with your specific needs in mind will set you up for success.

With careful thought and planning, you can build an ecosystem that supports a strong back-end that will power an effective frontend that leads to ecommerce success.

FAQs about ecommerce tech

What is the difference between a tech stack and a service?

A tech stack refers to the combination of frameworks, databases (MongoDB, for example), programming languages (HTML, MySQL, PHP, JavaScript, Apache), and services (web servers) used to build and operate an IT environment. A service typically refers to a specific piece of functionality or a module that supports part of a larger system.

What are the benefits of using a technology stack?

A well-executed ecommerce technology stack promotes consistency across the ecosystem, leads to faster development cycles, reduces integration challenges with software solutions, and is easier to scale.

Which tech stack is best for ecommerce?

It's difficult to issue a blanket statement for what is "best" as each use case is unique. However, headless ecommerce — separating the frontend and backend — is quickly gaining in popularity.