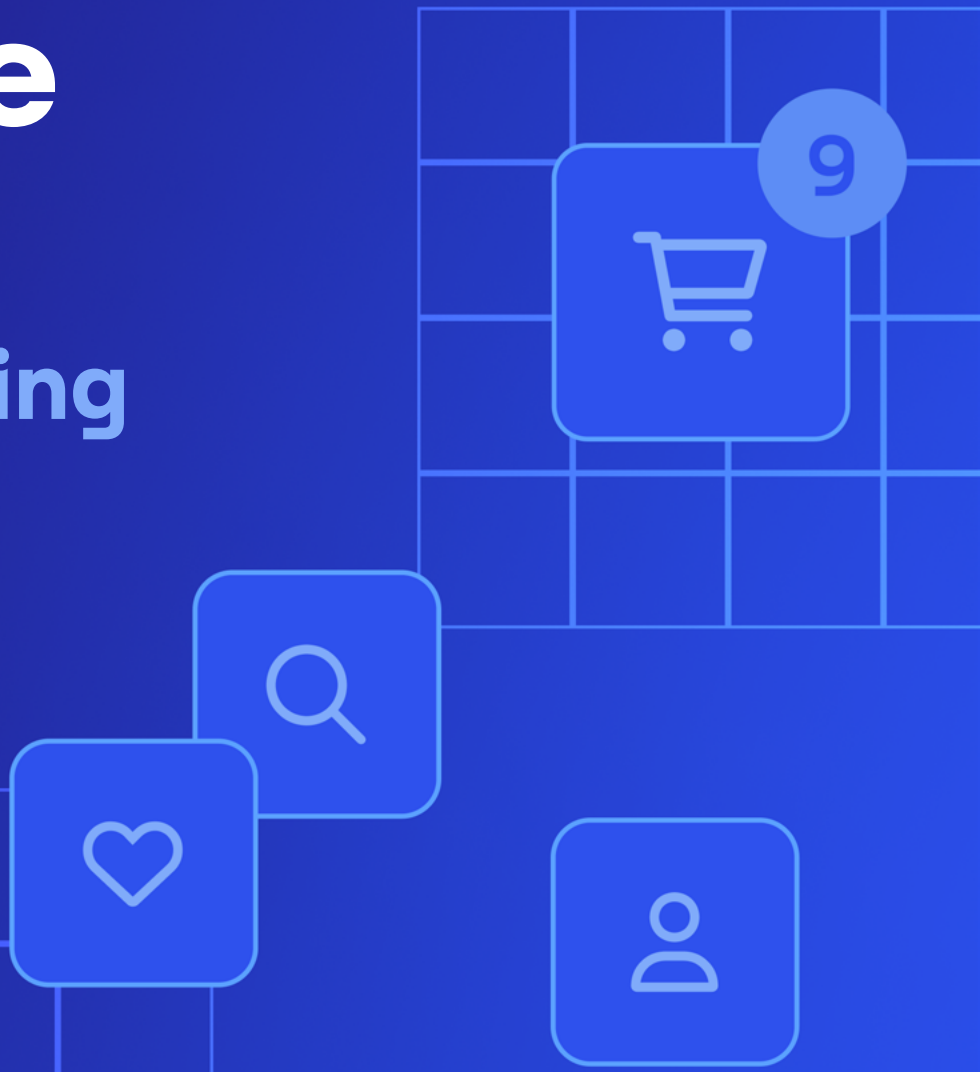
Composable commerce:

The future of building online shopping experiences



CONTENTS

Digital commerce is exploding, and ecommerce web monoliths can't keep up 3

The top 7 benefits of composable commerce 4

Netlify: Your composable commerce control room 7

Learn the basics of composable web architecture for ecommerce, and how it's helping online retailers:

- Build on-brand, unique shopping experiences at scale and personalize the buyer's ecommerce journey
- Enable marketing teams to build exceptional web experiences without reliance on development teams
- Build performant sites that load faster and have higher SEO rankings
- See overall cost savings after migrating off of a traditional monolithic commerce platform

© 2024 Netlify

Digital commerce is exploding, and ecommerce web monoliths can't keep up

Online shopping is nothing new. But as ecommerce grows in popularity, **customers' expectations for performance and experience on ecommerce sites is rapidly evolving**. Today's digital consumers demand an exceptional digital experience. They expect extremely rapid loading of pages, services, and images, and if a site doesn't deliver, the user doesn't convert. A recent study found that for every 100ms improvement in site speed, retailers see an 8% increase in conversions[1].

As retailers race to deliver on these new customer demands, teams face challenges in delivering better shopping experiences **due to the technology stack they're using to build ecommerce sites**.

[1] https://www2.deloitte.com/content/dam/Deloitte/ie/Documents/Consulting/Milliseconds_Make_Millions_report.pdf

© 2024 Netlify

Common challenges include:

1 Teams can't iterate quickly:

With monolithic commerce platforms, teams often need to wait for weekly deployments to ship any changes to the site, or even need developer assistance to make something as simple as a copy edit. Without the ability to iterate quickly, A/B test, and constantly evolve the site, teams facing this challenge are at an inherent disadvantage.

2 It's hard to differentiate your site's look and feel:

Ever go to a website and immediately recognize that it's built with Shopify? Monolithic platforms are hard to customize, so teams frequently stick to a handful of preset or slightly customized page layouts. Unique, branded ecommerce experiences set your site apart from the rest, an especially important competitive advantage for high-end online retail.

3 Sluggish performance leads to a bad customer experience:

Monolithic platforms tend to suffer from performance problems which, due to the way they build sites, no amount of optimization is going to improve. This has massive implications for SEO, as well as your customers' experience on your site, and in turn, your revenue. The probability of a bounce increases 32% as page load time goes from 1 second to 3 seconds[1]. At the extreme end of the spectrum, Amazon estimates that a slowdown of just one second in their site would cost the company $1.6 billion in sales each year[2].

4 Monoliths are expensive to update and operate:

"All-in-one" ecommerce platforms offer all basic online retail functionality, from cart management to product inventory to content management, and more. But the odds are, your company isn't using all of the features, and you wind up paying for way more than you actually use.

[1] https://www.thinkwithgoogle.com/marketing-strategies/app-and-mobile/page-load-time-statistics/

[2] https://www.fastcompany.com/1825005/how-one-second-could-cost-amazon-16-billion-sales

THESE ARCHITECTURAL CHALLENGES ARE PROMPTING A MOVE TO A NEW WAY OF BUILDING SHOPPING EXPERIENCES FOR THE WEB: COMPOSABLE COMMERCE.

© 2024 Netlify

Composable Commerce 101

But what is composable commerce? And what is a monolith to begin with? Let's level-set with a few definitions:

Monolithic commerce.

Monolithic commerce is where one provider takes different functionality, often none of it best-in-class, and puts it in one big solution. For example, a monolithic commerce solution from Adobe (Magento), HCL, Salesforce, SAP, or Shopify will typically include product information, product images, prices, payments functionality, search, customer management, analytics, and frontend elements (such as mega-menus) with limited and clunky customizability. The challenge is if you want to change one part, you need to change all of them. Only that takes years, and you've already spent millions, so you don't.

Headless commerce.

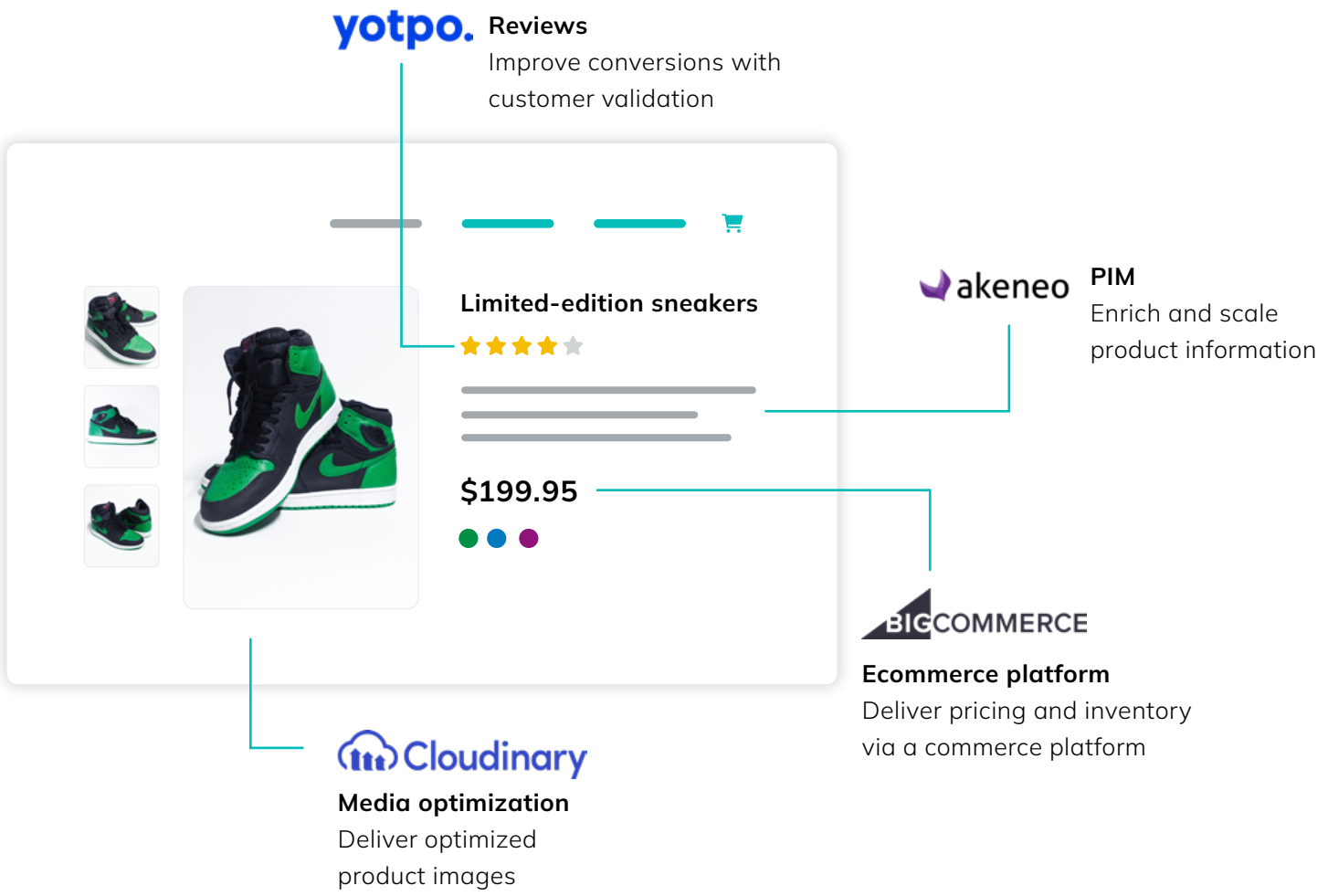
Headless commerce is where you separate the frontend - the web experience layer - from the monolithic backend. This is usually the first step towards composable architecture. The advantage is that you can quickly iterate on the frontend experience without impacting the backend. The disadvantages surface when teams try to plug in specialized components to meet specific business requirements. Some monolithic commerce backends tend to make that challenging or impossible work.

Composable commerce.

As retailers embraced headless content management systems, optimized stand-alone search, and specialized APIs for product reviews, product information (PIM), personalization, and more, we've started talking about composable commerce. Composable commerce is where functionality on the frontend and backend can be pluggable, scalable, replaceable, and able to be continuously improved through agile development.

© 2024 Netlify

A fully composable system uses a handful of carefully selected, best-of-breed tools, rather than one “all-in-one” platform. It has a decoupled frontend, with backend logic handled by APIs. This way, companies only pay for the functionality they need, and have granular control over what tools they’re using for each unique function of their site.



© 2024 Netlify

The top 7 benefits of composable commerce

1 Faster time to market.

Large monoliths that combine the commerce platform, template engines, glue code, build tools, customer data, personalization, programming framework, and infrastructure become bloated and ungovernable. Ultimately, the monolithic approach to commerce kills iteration speeds.

2 Cost reduction.

According to MACH Alliance research, a quarter of IT decision-makers said they spend over half of their IT budget on version upgrades for their legacy systems[1]. On average, companies spend almost two-fifths of their budget on these upgrades. The beauty of a composable approach is that you buy - or build - only what you need: adopting one module doesn't carry the cost of buying everything else.

3 Omnichannel experiences.

A traditional monolith makes it virtually impossible to cater to all the channels customers use today. Every place we share data needs to be accessible as an API. Teams must decouple the vastly different presentation layers from the backend to build the best experiences for each channel. Catering to omnichannel shoppers has become hugely important for retailers today as omnichannel shoppers spend way more. Target, in fact, reports that they have 40 million guests shopping across channels and that omnichannel guests spend four times as much as stores-only guests[2]. It's fair to say that embracing omnichannel is do or die for retailers, and the only way to scale that is to move off monoliths.

[1] https://machalliance.org/insights/our-2022-research-shows-mach-adoption-is-high-on-the-agenda-for-tech-leaders

[2] https://www.fool.com/earnings/call-transcripts/2022/03/02/target-tgt-q4-2021-earnings-call-transcript/

© 2024 Netlify

4 Differentiation.

One of the biggest challenges with commerce experiences built on monoliths is that there aren't the same possibilities for creating an immersive standout customer experience as there are in a physical store. As a result, thousands of competitors are one click away. With a composable commerce stack, you are not bound by specific templates or checkout procedures and are free to customize the customer experience to your exact specifications.

5 Faster web experiences.

Ecommerce managers know the value of every millisecond. An analysis of customer analytics across 37 brands and 30 million sessions found that 100ms of site speed gives retailers an 8.4% increase in conversions[1]. Because of the flexibility of headless APIs, teams can use a composable approach for web development to generate and optimize web assets in advance and then ship them to nodes across the globe. Coupled with edge functions, prebuilt pages load content to the screen much faster than on monoliths because they remove the latency of going roundtrip back to an origin in another country where the pages still have to be assembled before being served.

6 Scale.

Large-scale traffic on monoliths strains web infrastructure because each request needs to be dynamically built every time. There are strategies for caching and processes to auto-scale virtual servers, but it quickly becomes complex. With a composable commerce architecture, web properties have multiple points of origin and don't need the same dynamic build cycle on every request. If a store gets on the front page of the New York Times or an influencer campaign goes viral, there's no risk to the retailer of having to maintain expensive server infrastructure upfront to cater to the spike in traffic.

7 Incremental migrations and lack of vendor lock-in.

Unlike monolithic ecommerce platforms, composable elements aren't all-or-nothing. It's possible to incrementally build out the functionality your site needs and slowly switch over certain pages or products to the composable model. And since most services are served as SaaS APIs with a monthly contract, there's no risk of years-long vendor lock-in. Switch products when you need to, no questions asked.

[1] https://www2.deloitte.com/content/dam/Deloitte/ie/Documents/Consulting/Milliseconds_Make_Millions_report.pdf

© 2024 Netlify

Netlify: Your composable commerce control room

Managing and integrating all the component tools for a composable commerce site can be difficult. While those tools will look different for each company, a typical ecommerce use case might require a headless content management system like headless Shopify or Vue Storefront, optimized stand-alone search like Algolia, specialized APIs for product reviews like Yotpo, and a static site generator like Next.js or Gatsby.

This is where Netlify comes in.

Netlify provides a way to manage all the tech required for a composable commerce site without dedicated DevOps or IT resources. At the forefront of composable web development, Netlify is used by more than 5 million web developers and businesses. The Netlify platform provides modern build workflows, serverless functions, and a global multi-cloud Edge network that delivers the most performant, secure and scalable composable commerce sites.

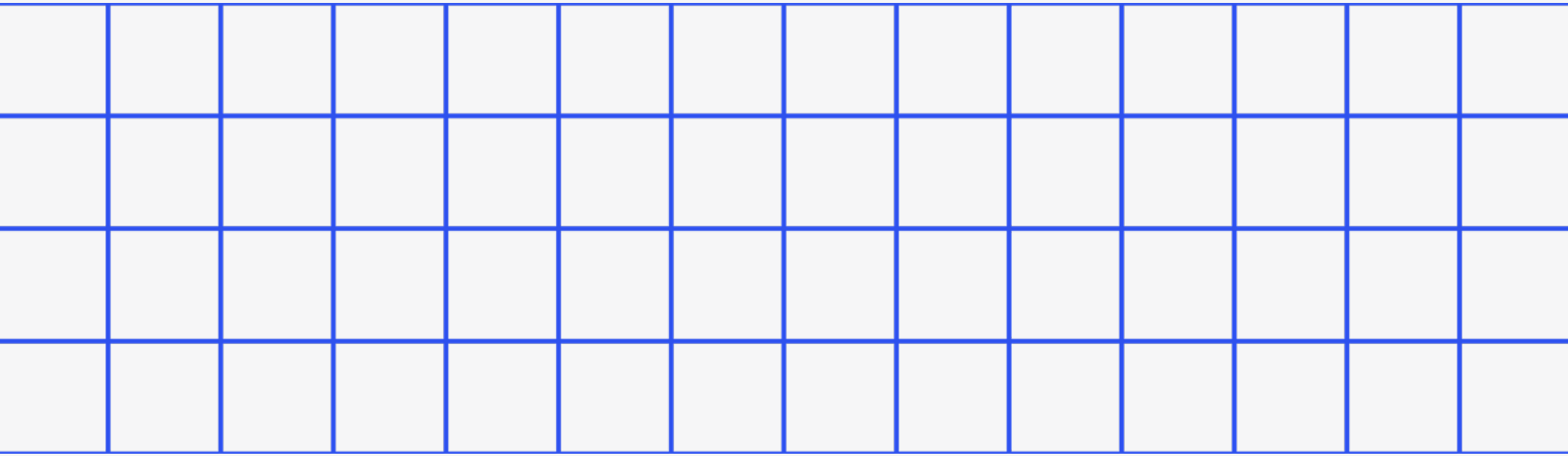
Allow your marketers and developers to select the best-of-breed tools they need to build exceptional shopping experiences, and unite them on Netlify to deploy performant, scalable stores.

© 2024 Netlify

Netlify powers world-class ecommerce experiences.

Talk to an expert today about taking your retail site to the next level with composable architecture.

Talk to an expert



© 2024 Netlify