

Better, faster, future-proof:

Three keys to shipping stand-out digital experiences



Version 1.0 April 2023



Table of Contents

 \mathbb{I}



Monolithic architectures are holding businesses back.

Composable architecture, an ecosystem approach to building that allows for best-in-class component selection, makes businesses more agile. Composable approaches drive superior outcomes by getting more resilient and secure products to market faster. This gives organizations like yours greater flexibility and drives down costs by simplifying the process from concept all the way through optimization. Marketing teams ship campaigns faster. Development teams provide better web experiences. Entire enterprises can work together, simultaneously, from a single platform with tools that fit their own use cases and skill sets. Designed from day one for security in mind, the composable approach will allow teams to confidently de-risk digital infrastructure at scale while driving your business forward.

Three keys that will help your team build a future-proof, secure infrastructure that will allow your organization to grow, scale, and ship faster more often:



Create a set of reusable content modules for storytelling



Choose flexibility to future-proof your digital investments



Build your architecture brick by brick



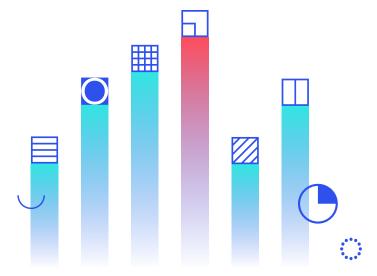
Introduction

The explosion of the internet that has enabled our interconnected world and evolved the way we live is still fueled by many legacy systems that pre-date social media.

Building websites used to require extensive specialized expertise and knowledge of how to code, build locally, manage environment variables, and deploy from a command line interface (CLI). For businesses, the reality is that the legacy systems that enabled the early internet are no longer meeting the demands of today. Monolithic content management systems (CMS) like Wordpress, Drupal, and others have fallen behind. They can no longer offer the security and scalability that enterprise operations demand. When it comes to building a digital foundation for your online experiences, you can't afford to compromise. Luckily, there is a new approach that will allow you to future-proof your digital architecture investments.

Instead of monolithic systems, composable architectures offer a flexible and modular approach to creating high-quality, high-converting, and high-value web experiences. This approach provides several advantages:

- Faster time-to-market. Decoupling the frontend and backend allows many teams to work simultaneously without waiting on, or interrupting, one another.
- Limitless flexibility. Free your developers from the constraints of monolithic platforms, bulky infrastructure, endless security patches, and complex continuous integration/continuous deployment (CI/CD) pipelines so they can focus on creating impactful digital experiences.
- Reduced spend. Composable architecture is more cost effective when compared to monolithic systems that require specialized expertise and a full DevOps team to manage. The agility gains and ease of use means your team can drop entire work streams to ship faster, more often.





Through the lens of a composable approach, we will explore three keys to future-proof your digital investments by designing for speed, performance, and security from day one.









Create a set of reusable content modules for storytelling

In life and in technology, the only constant is change. But too often, we operationalize that into our web practices by trying to build one-off templates for every new request that comes in. The result is too many things to do and not enough people to do the work. And in the current economic climate, organizations are realizing they have to find a different way forward.

In the composable world, component libraries work seamlessly with CMSs to provide a unified source of truth for content, design, and developers. With component libraries and modular design, teams have the flexibility to pivot, repeat, scale and grow.

Real-world examples of reusable content modules

Sector / Non-profit
Tools / Wordpress, Vue, Nuxt.js, Netlify

In the non-profit sector, effective storytelling, being able to build and launch campaigns quickly, and delivering a positive user experience are critical to attracting donors and achieving funding goals.

When the American Civil Liberties Union (ACLU), a rapid response organization, saw a traffic surge overnight post-2016 election, they began taking on more cases and doubled their budget. This rapid growth allowed them to form a product and technology team in-house with the goal of innovating their digital organizing and online fundraising initiatives. They needed an approach that could handle their changing and expanding needs.

With a composable approach, the ACLU was able to spin up jamstack sites for initiatives in record time while increasing page load times. This approach enabled them to make timely targeted updates, increase development speed, and put build strategies in place that provide continual and easy deployment.

READ THE CASE STUDY



 \circ



3

What the ACLU uses for its technology stack comes down to what has good documentation, what has a good learning curve, and what engineers use.

— Rhonda Friberg

Director of Engineering / ACLU







Real-world examples of reusable content modules

Sector / Saas

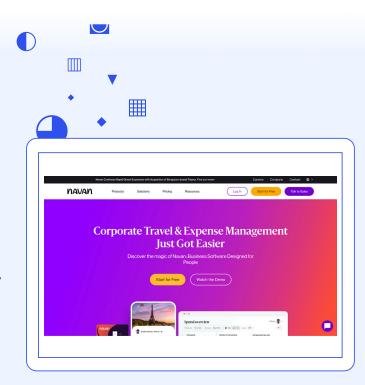
Tools / Next.js, Contentful, Netlify

When it comes to SaaS, the ability to deliver seamless web experiences throughout the entire user journey is crucial to sustainable success.

With a lean web team of only two developers, Navan (formerly TripActions) needed an approach that was going to make localization easy, provide speed and resilience, and make it easy for both marketers and developers to use, innovate, and scale.

A composable approach allowed their team to be more nimble and focus on delivering a delightful user experience. It also provided them the flexibility to choose other frameworks for other projects without locking themselves into one framework.

READ THE CASE STUDY



Previously you would have to choose between being easy for a developer and hard for a marketer or hard for a marketer and easy for a developer. In this case, we were able to find something that suits both.

-Kady Wood

 \circ

Senior Director of Global Web Strategy and Experience / Navan





Real-world examples of reusable content modules

Sector / E-commerce

Tools / Next.js, Sanity, Shopify, Mux, Netlify

In luxury e-commerce, the ability to get new products online quickly and minimize load times, without sacrificing on design, are critical to selling products at scale.

Aether Apparel was looking to redesign their website that would give the same premium experience that they provide in their retail locations. They wanted to be able to tell stories about their products and launch new collections easily and quickly.

With the help of Commerce-UI, they were able to create modular elements that can be adapted to use in product pages, custom campaigns, offer pages, and more. These modular components allow the team at Aether Apparel the ease of repeatability and consistency while telling unique and engaging stories.

READ THE CASE STUDY



 \circ

...By combining Shopify and Sanity CMS, we were able to bring the best of both worlds — cutting-edge technology with an already familiar and comfortable editing experience, live preview included!

— Michal Wolczecki-Klim CTO / Commerce-UI





2

Choose flexibility to future-proof your digital investments

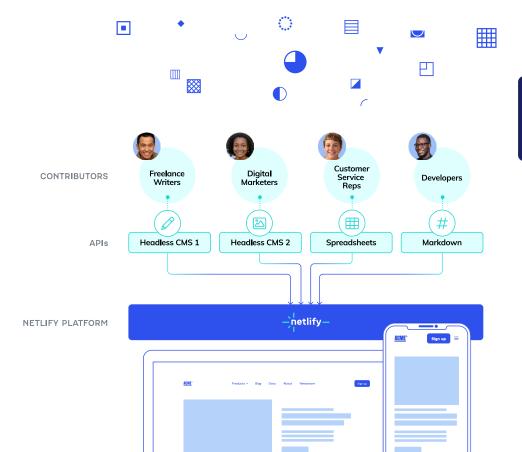
It's no secret that as web technology has become foundational to everyday life, large technology vendors have pursued a lock-in, "all-or-nothing" strategy in an attempt to grow and protect their own revenue. The result is that technology and marketing leaders are forced into long-term contracts with subpar tooling that lack the full feature set and flexibility you would get in a best-of-breed solution. Going composable eliminates vendor lock-in, allowing your team to use different tools for different projects or even pivot away from tools that are no longer meeting project requirements. The flexibility to scale, grow, change and evolve is paramount to future-proofing digital investments.

The flexibility of a composable architecture, your team can create a best-in-class foundation tailored to their unique requirements, using tools, services,

and workflows optimized for their specific needs. Netlify has revolutionized the CI/CD process, transforming a resource-intensive process to a single-click deployment. With more than three million developers building on Netlify and over 30 million sites deployed, embracing composable architecture has allowed brands to reach new heights.

With Netlify, you can have freelance writers creating blog posts in one headless CMS, digital marketing teams building landing pages in a different headless CMS, customer service representatives editing store location details in a spreadsheet, and developers writing documentation in markdown files. Instead of forcing your teams to use tools that only support a single function or are limited in their ability to connect and integrate with other tools, you can empower your teams to pick their tools of choice and have it all run smoothly, and simply, on Netlify.

Many teams, many tools, all on Netlify



Example system architecture for a pioneering consumer food brand



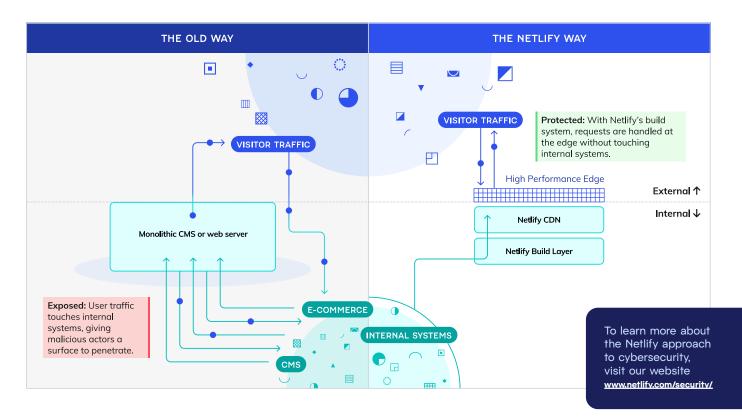


Security is a critical aspect of running any modern, digital business. Web properties are vulnerable to a number of cybersecurity threats, including but not limited to: distributed-denial-of-service (DDoS) attacks, defacements, Command and Control (C2) infrastructure attacks, data and credential theft, and gaining a foothold to leverage as lateral movement into an organization's infrastructure. While composable architecture is not a silver bullet solution, since insecure code and application architecture can make any software vulnerable to exploitation, if composable architecture is implemented and maintained correctly it can effectively reduce common risks that can impact websites built on a monolithic architecture.

In composable scenarios where no code is being processed by web servers, the code is built ahead of time in an isolated environment and is protected by Netlify robust security architecture and segmented from other Netlify users. Common misconfigurations are mitigated by the Netlify build and deploy process. With no code executed on the server-side and the backend CMS being physically isolated from the frontend website, this helps to reduce the

impact of a backend vulnerability and keeps the site decoupled from organizational architecture. The decoupling of the public facing web property from organizational architecture helps to eliminate the threat of intrusion that leads to lateral movement.

With a modern composable architecture, your website visitors are served from a alobal Content Delivery Network (CDN), which reduces the attack surface for both visitors and developers and provides proactive DDoS protection. Security should not be an afterthought, but included in every decision of your digital infrastructure from day one. Security should also be designated by default and take into account the critical element of the human-factor. Tools that are cumbersome or slow down remote workforces are notorious for leading to risky workarounds. The less choices your team has to make about security in their infrastructure, and the more simple the security solution is to work with, the more likely your organization will improve your security posture and maintain it over the long term. You never want to sacrifice on security and compliance. With Netlify, you don't have to.





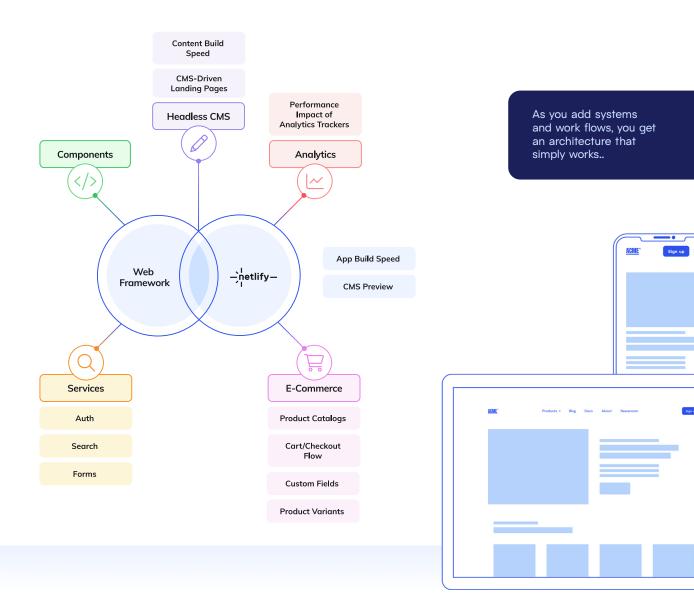


3

Build your architecture brick by brick

Only your team knows the complexity of your current digital landscape and have a sense for what rate of change is possible in your organization. Some companies have portfolios of hundreds of websites, which means they can't just change their

entire architecture overnight. Others may have a more straightforward setup that they're willing and able to move fast, but still want to do it without introducing a high level of risk to the business.





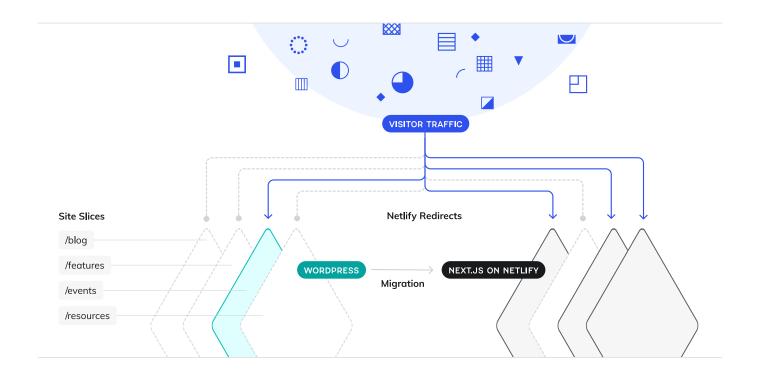


Taking a modular approach to building allows your team to both minimize risk and accelerate time-to-market by replacing one component or one page at a time. By building brick by brick instead of all at once, your team can focus on building excellent experiences and modular components that are reusable in the future. Even better, proven staged migration approaches allow teams to gain more flexibility over time, without a risky big-bang re-launch.

One large public financial firm used Netlify redirects to gradually move their website, section by section, from WordPress to Next.js. When a security issue on part of their old website was flagged, they were able to immediately cut-over that section without needing to migrate the rest.

In the world of eCommerce, brands with tens of thousands of products can benefit by migrating the highest-impact sections of their site, like the checkout flow, first. In monolithic architectures, an all-or-nothing approach is required, which introduces a high level of risk of things going wrong. In comparison, a gradual migration allows you to prioritize low-risk or high-impact pieces first, which means you can deliver conversion lifts that win more business while your teams gradually adjust to new technologies and workflows. With a modular approach to migration, technology leaders can minimize their risk while moving toward more modern solutions.

As companies grow and scale, they need the ability to upgrade, expand, and pivot at the expense of performance. Customizing often implies having to re-architect or re-invent, which is no longer the case with a modern web platform. With Netlify, you can easily run your architecture on our High-Performance Edge, backed by a 99.99% uptime service-level agreement (SLA) and featuring a resilient multi-cloud backend. We made the foundational pieces of backend infrastructure simplified and streamlined so your team can focus on optimizing as you go and building secure, performant web experiences from the ground up.





_ Conclusion



The internet is incredibly crowded.

To stand out above the crowd and stay ahead of your competitors, organizations need to adopt an approach to web development and delivery that allows your team to respond to market dynamics, customer needs, and new campaign launches with agility.

These three keys will help your team to strategize and build a future-proof, secure infrastructure that will allow your team to grow, scale, and ship faster more often:



1 Create a set of reusable content modules for storytelling



2 Choose flexibility to future-proof your digital investments



3 Build your architecture brick by brick

Ready to speak with an expert to learn how Netlify can help your organization build what's next?

Let's Connect



About Netlify

At the forefront of composable web development, Netlify is used by over three million web developers and businesses. Netlify is the platform teams love for building highly-performant, secure, and globally scalable websites, e-commerce stores, and web applications. By uniting an extensive ecosystem of technologies, services, and APIs into one workflow, Netlify unlocks new levels of business agility for organizations of all sizes.



To learn more or get started for free, visit Netlify.com

