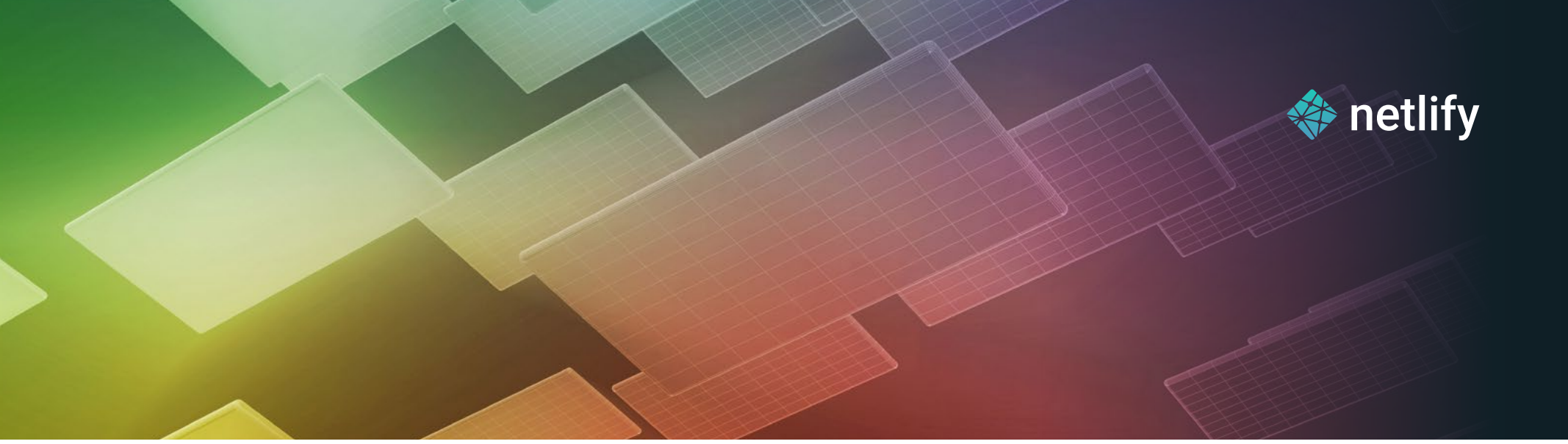

netlify
Accelerate Digital Growth with Netlify
UNLOCK PRODUCTIVITY, PERFORMANCE AND SCALE WITH THE MODERN WEB



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Chapter One:

Legacy Web Monoliths Slow Digital Growth

Your customers expect fast, personalized experiences across digital platforms, and your cross-functional teams need to be able to quickly develop, deploy, test, and iterate web experiences to meet their expectations. While legacy monolith architectures have been a long-standing mainstay of many large organizations, development teams find that the tightly coupled architectural approach and the use of legacy coding languages by monoliths create more complexity, result in slow site performance and are inefficient when trying to bring new digital channels to market.

The common challenges posed by legacy web monoliths include:

Decreased conversion rates: Your website's performance influences the buying behavior of your customers. Nearly 70% of consumers say that page speed impacts their willingness to buy from an online retailer.[1] Google's user performance data shows that for every 100 milliseconds of improvement in mobile site speed, conversion rates increased by 8.4%.[2] Brands that prioritize great user experience and performance on their site will create competitive advantage through better conversion rates.

Slower speed of development and iteration: Teams developing on a monolith face several limitations that negatively impact speed and agility. A monolith makes it difficult to quickly iterate the frontend without affecting the backend, easily spin up multiple environments to test new functionality, share and review previews, and rapidly test and rollback personalization experiments. When teams are working with a monolith, they sacrifice working in an agile model where developers can simply focus on activities such as creating reusable web components and optimizing the site, while other cross-functional team members can focus on their areas of expertise, such as creating compelling content.

Monolithic web architecture

An architecture developed using a fully connected all-in-one approach, where every piece is part of a single whole. A monolith tightly couples the frontend, which includes elements of design and user experience with the backend, which contains the servers, database and infrastructure to power and maintain the site. Updating one feature typically means rebuilding and redeploying the entire system. When businesses are reliant on these architectures, it creates a set of dependencies that can impact productivity and innovation capabilities, since they are not agile or able to be changed quickly.

Headless CMS

A headless CMS is a content management system that sits in the backend of your website, mobile app, or other digital property decoupled from the presentation layer or "head."

Inefficient scaling because of duplicate workflows: Since the frontend and backend code within a monolith are intertwined, developers need to duplicate their work whenever they are internationalizing a site for a new country or introducing a new digital channel. In the case of site internationalization, often code will need to be copied and pasted from an existing site for a particular country to the site for the new country, which reduces efficiency and can cause bugs to replicate across the different country sites. When bringing a new digital channel to market, developers will need to spin up an entirely new backend or expose the monolith as a headless backend.

Diminished SEO efficacy and site traffic: In a monolith, servers do heavy lifting to generate and deliver HTML to the user each time a new visitor goes to a new page. Heavy HTML generation causes a slower page load time, which impacts search engine rankings. Core Web Vitals (Google's standardized metrics) evaluate page experience, which includes site speed, responsiveness and visual stability of a particular site. In 2021, Google made page experience an official factor in its search ranking algorithms.[3] The faster a page is to load, the more it improves a site's Core Web Vitals to increase search rankings. Even if content is SEO optimized, if page times are slow, this will bring down your search rankings.

Difficulty in finding and retaining developer talent: Monoliths are built using programming languages that have drastically lost popularity in the last decade. In 2021, PHP, the coding language behind WordPress monoliths, was only used by 23% of professional developers, and C#, one of the coding languages behind Sitecore monoliths, was only used by 30% of professionals. Contrast this with JavaScript, which is used by 69% of professional developers[4] and is the underlying language for most frameworks used in decoupled frontends such as Next.js, Gatsby, and Nuxt.js.

Chapter Two:

Netlify Makes Decoupled Sites Faster to Develop, Deploy and Iterate

If your organization is running a monolithic architecture and is experiencing any of the indicators of slow deployment times, poor performance and conversion rates, limited scalability, low search engine placement, or difficulty in finding development talent, it's time to modernize. Many organizations are modernizing by moving to a decoupled architecture. Decoupling is the process of creating a clean separation between systems or services. By decoupling the front-end from the back-end infrastructure and pre-rendering as much content as possible, sites are more efficient to build and result in a more optimized user experience.

Netlify provides a single platform that unites modern decoupled web frameworks, serverless functions and edge computing to build and deploy fast, scalable and dynamic websites, e-commerce stores and applications. This next section quantifies the benefits that Netlify's customers report by implementing a decoupled architecture using the Netlify platform.

Benefit #1: Teams Get New Sites Up and Running 20 Business Days Faster

The days of a single marketing site are gone. Teams within an organization now frequently manage multiple sites. For example, the marketing team at Medallia, a Netlify customer, manages nearly a dozen sites that include the primary marketing site, an event site, a careers site, and several international sites that each have unique content. Some larger organizations are spinning up an average of 25 new modern decoupled sites every year.

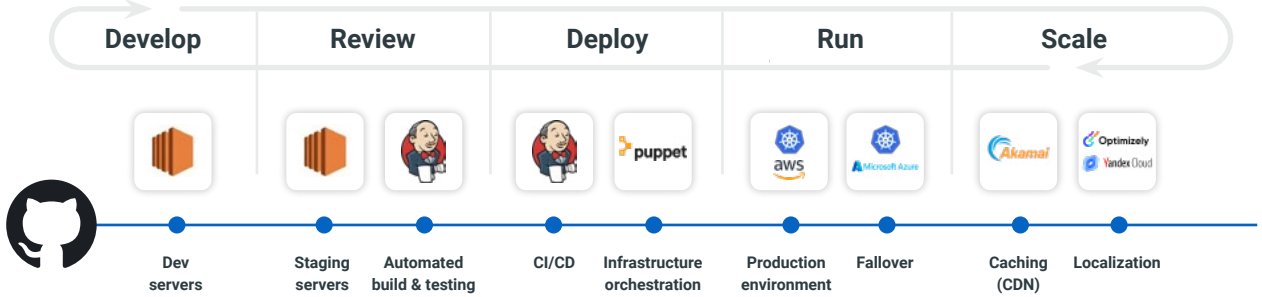
Even when using a decoupled architecture, launching a production-ready enterprise site can be slow when building for scale. Teams can wind up spending valuable time building complex deployment pipelines and orchestrating infrastructure that adds no value to the end-user experience. In addition, most teams need to implement observability so that there is visibility into metrics and logs for all digital properties across the organization. Netlify turns the complex process of setting up staging, dev, build, infrastructure orchestration, a production environment, failover, caching, and observability set up into a single workflow.

One of Netlify's global Fortune 500 customers had built a playbook for orchestrating complex supporting site infrastructure. Yet even with this comprehensive workflow in place, they were finding that it took on average almost an entire month to get a new site and its observability setup up and running. **Using Netlify, teams reduced the timeline of getting a new, production-ready enterprise site up from almost one month to only two days.** Teams can simply push code to Git, automatically get instant and unlimited staging environments to preview every pull request and can go straight to production once the pull request is approved. To help monitor the site and implement advanced observability, Netlify Log Drains make it seamless for teams to connect their logs from Netlify to Datadog or their logging and monitoring tool of choice.

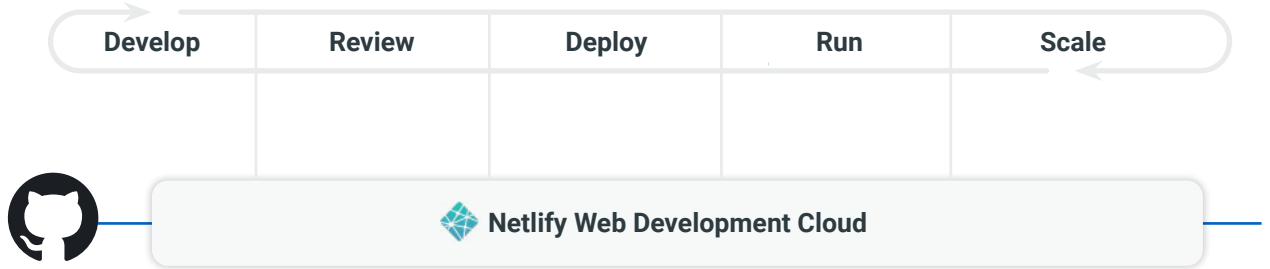
A 20-day savings of engineering time translates to $12,000 of savings per site.

[Chapter Two]

Before Netlify: Complex, multi-step process to setup and deploy a production ready site



After Netlify: Simple process for site setup and deployment



Benefit #2: Developers Save a Day Every Week

Boosting the productivity of your developers so that they can build, deploy, and iterate quickly helps you better meet the changing needs of the market and your customers. Netlify eliminates the traditional barriers to developer productivity by providing a comprehensive workflow your team needs to build, iterate and deploy websites. On average, organizations using Netlify reduce the required amount of development time by 20%, or the equivalent of one day per week per developer. Your developer talent is now free to be redirected towards site optimizations and other mission-critical projects. Netlify improves developer productivity by helping teams:

Develop faster.

The Netlify platform provides an instant and an unlimited number of staging servers for every developer, so there is no contention for resources. There is also no additional infrastructure that developers need to set up, which helps avoid unexpected production issues that may require troubleshooting. It takes a developer 23 minutes to get back in the zone after a distraction.[5] Since developers can build and deploy backend functions as part of their flow with Netlify, they experience fewer interruptions that impede their progress. With Netlify Functions, developers can deploy, test, iterate and implement form submissions, connect to internal services, or make secure calls to a database without going through a complex manual deployment of functions or waiting for DevOps or SRE support from IT.

Collaborate more efficiently.

Using Collaborative Deploy Previews, design and content reviewers can preview, review and comment on live versions of the site before they go to production. Team feedback is automatically synchronized to the productivity tools that your team is already using, such as GitHub, GitLab, Jira, Linear, Shortcut, Trello, and more. This ensures a tight feedback loop that is integrated into the developer's workflow so that important details aren't lost. Developers spend less time spinning up staging sites to share progress and keeping track of feedback scattered across channels such as email, IM, internal social networks, and Slack.

A day a week translates into $30,000 annual savings per developer.

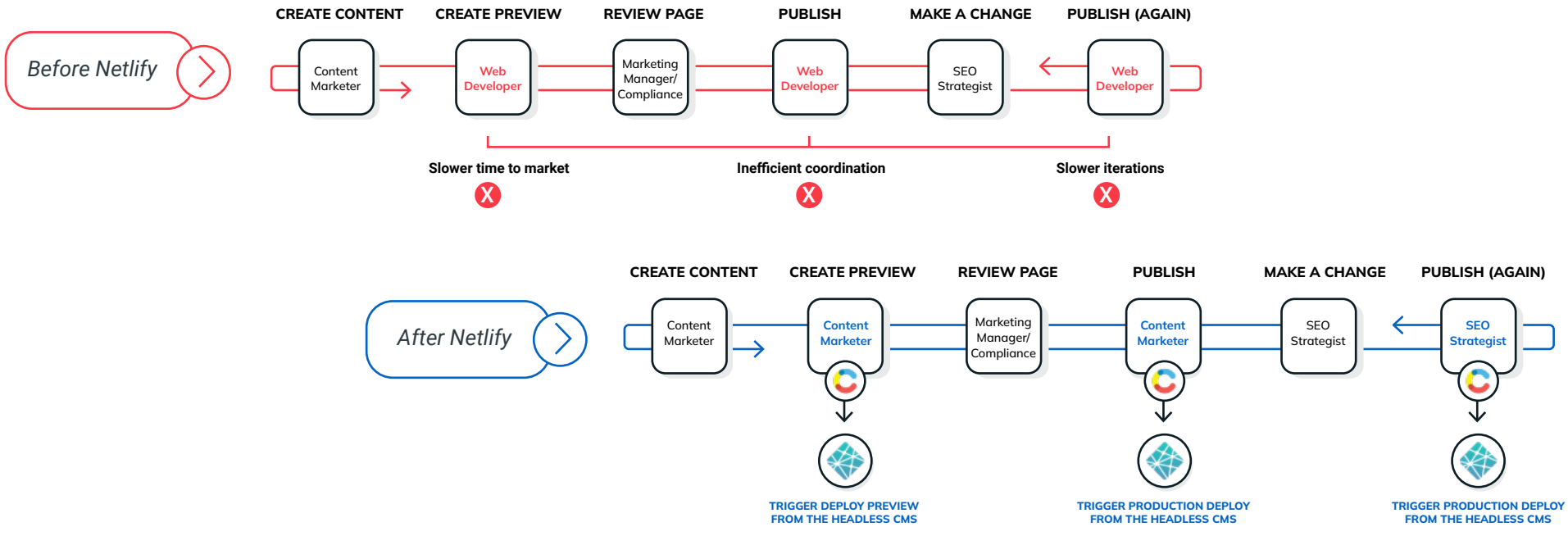
[Chapter Two]

Empower non-developers to publish content.

Netlify has out-of-the-box plugins with CMSes and e-commerce platforms, so developers can focus on creating reusable components and enabling non-technical team members to publish content. In the event of an error, anyone can instantly roll back the site to a previous version with just one click. In the past, this complex problem involved the process of time-consuming cache invalidation.

Deploy and scale automatically.

Reduce time spent fine-tuning and making configurations – just commit to Git and Netlify automates deploys, shipping the code changes for you. And, every deploy publishes your apps across all of Netlify's 70+ global edge locations, which means that you no longer need to own or manage web servers and a CDN, even for highly dynamic applications.

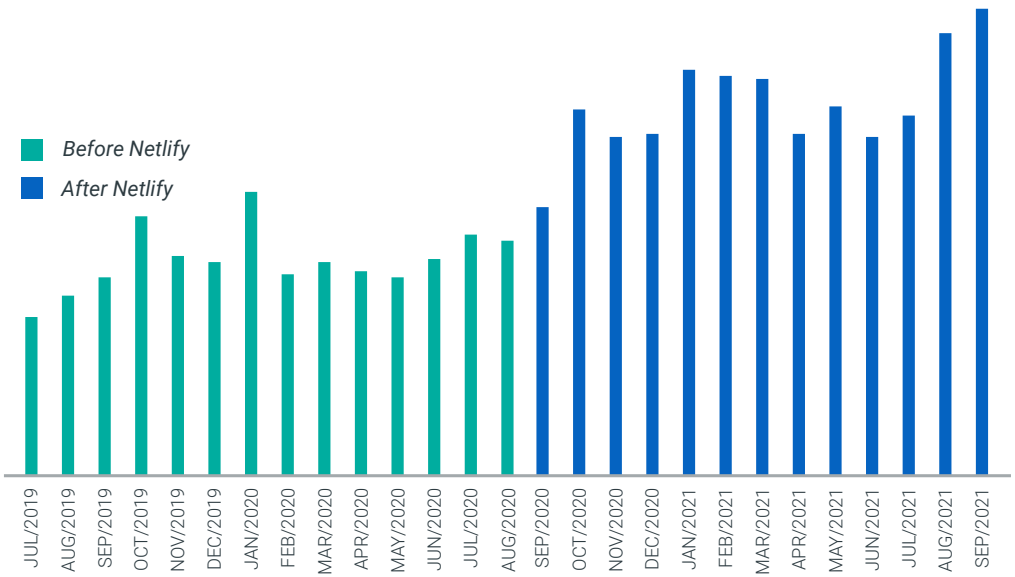


Benefit #3: Sites Perform Better

Search engines reward fast sites with higher organic search rankings. With more than 70 global points of presence, Netlify's High-Performance Edge network serves your site, store, or app from the closest point to your customer. This results in faster sites, which increases your site's search engine rankings, which translates into more pageviews. For example, one enterprise customer attributed a 10% increase in site traffic to Netlify-enabled site speed and improved performance (see figure.)[6] Additionally, because Netlify makes it easier to publish content, some teams have seen increased pageviews due to more rich content getting to market faster.

Increase Site Visits by 10%

SITE VISITS PER MONTH



Source: Forrester, The Total Economic Impact of Netlify

Improve Conversion Rates by 8%

Conversion rates directly impact your bottom line and optimizing them is becoming increasingly important. Paid advertising costs are sharply increasing, so it is more important than ever to convert the dollars spent by marketing teams into leads and revenue. The cost per click for paid search ads increased by 15% between the second and third quarters of 2021 alone.[7]

With the benefits of faster page launch velocity, ease of use, and elimination of IT participation during the A/B split testing, development teams can conduct more A/B testing to optimize a site more quickly. When optimization is paired with increased site speed from the Netlify High-Performance Edge, the user experience improves, leading to increased customer conversion rates. A Google study using data from 30 million user sessions across 37 brands found that for every 100 millisecond improvement in site speed, conversion rates increased by 8.4% for retail sites and 10.1% for travel sites.[8] Enterprises using Netlify have seen the impact – the average site conversion rate for Netlify customers increases by an average of 8% per site. Some Netlify customers, such as Pan Macmillan, have seen conversion increase as high as 25% after migrating to Netlify.[9]

A 0.1-second improvement of mobile site speed increases conversion rates by:

8.4%
for retail sites

10.1%
for travel sites

Source: Deloitte, Milliseconds Make Millions

Benefit #4: Infrastructure Cost Reduction

In addition to impacting your developers' productivity and site performance, Netlify can reduce the costs associated with infrastructure overhead. This includes servers, load balancers, caching tools, and related network infrastructure. If you use a CDN, you can also retire that cost since the Netlify platform contains a High-Performance CDN.

"Netlify was the obvious hosting partner in terms of cost-effectiveness … I've halved my Azure bill."

Pan Macmillan[10]

Chapter Three:

Moving to Decoupled Web Architecture Is Faster and Less Risky with Netlify

Previously, web, e-commerce, and digital leaders familiar with the downsides of a monolith had been hesitant to propose that their organization go through a year-long "big bang" migration, reskill employees to work in new systems and frameworks, and abandon expensive tech investments. But more recently, they have found that:

Developers already use the tools and frameworks to develop and deploy decoupled sites. The chances are high that the tools, frameworks, and technologies you would use for your decoupled site are ones that your development team members have chosen to use on projects where they have had an opportunity to choose their toolset. For example, more than two and a half million developers already use Netlify to build, preview, and deploy decoupled sites today. As a bonus, one Netlify customer found that when they switched to a decoupled architecture that used a JavaScript framework, they were able to widen the scope of developers to select from, resulting in a savings of $993,000 over three years.[11]

[Chapter Three]

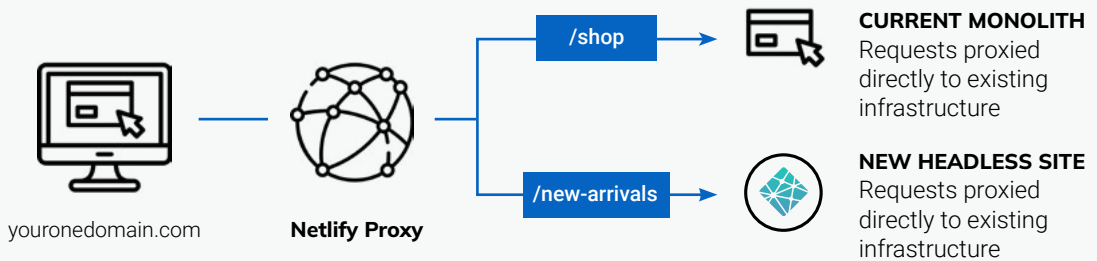
Incremental migrations are fast to set up and scale. Most large-scale migrations that use Netlify do so iteratively, and many get their first components up in the first few days. For example, one large e-commerce customer started by moving their terms and conditions pages to Netlify. As they smoothed out processes and got more confident, they added more critical mission pages one by one and eventually in larger chunks. Another large Netlify customer that manages dozens of country-specific sites began by migrating the country site that received the least amount of traffic. Once they migrated that site to Netlify, they quickly built momentum for the dozens of other sites to follow. Netlify Proxies and Redirects make it seamless for teams to point portions of their site to Netlify while still retaining the main dot com URL structure for customers.

Monolithic tech investments can be reused in a decoupled way. Moving from a monolith to a decoupled structure does not always mean that you need entirely dispose of your CMS, e-commerce platform, search provider, or any other contract you've already committed to. In most cases, teams can reuse their tech investments in a decoupled way. For example, in the past few years, Sitecore, traditionally a monolith, has shifted to offering its platform as a composable solution that can be used in a decoupled manner. The same is true for WordPress (WPGraphQL), Adobe Experience Manager (Experience Manager headless CMS), Shopify (Shopify Plus), BigCommerce (headless), and many more. Netlify Functions, Graph, and Build Plugins are just some ways that the Netlify platform makes it seamless for developers to integrate with any API or service.

Get to market faster with incremental adoption

Jamstack expertise + Netlify Proxies and Redirects

- Jamstack app & dev workflow assessment
- Zero down time onboarding
- Dedicated support team with support engineer & solutions engineer



Chapter Four:

Customer Proof

Millions of developers and businesses trust Netlify. Here are a few examples of customer results with Netlify.

Medallia, a leader in customer experience software, increased deployment speed by 30x by leveraging Netlify Deploy Previews to enable content creators to quickly QA changes before they went live. Medallia also **achieved 50% better Core Web Vital Scores** by deploying to Netlify's High-Performance Edge Network.

Pan Macmillan, one of the largest book publishers in the UK, was able to improve the speed of their site with Netlify. Without making any changes to their site's UX, and by only deploying Netlify, they saw a **25% increase in clicks to retailers**, and drove better conversion rates.

Cornerstone OnDemand, a talent management company, migrated from an outdated, monolithic CMS architecture to Netlify. As a result, **page loads are 25% faster and time to market with new web pages and content has improved 30%**. As a bonus, the team has also greatly improved its ability to retain and attract new talent.

MANSCAPED evolved from a US-based consumer packaged goods company to a global brand with a presence in dozens of countries worldwide. Pasting code from their US Shopify template to their German Shopify site to their UK Shopify site was time consuming and caused bugs. Moving to Netlify let the team **operate all internationalized sites out of a single codebase, reducing errors and making scalability easy.**

Chapter Five:

Next Steps

Netlify ROI Worksheet

When assessing your move to modern web infrastructure, take stock of these inputs as a first step toward assessing your return on investment with the Netlify platform.

Inputs:

_____ = Number of new sites your organization creates per year

_____ = Number of existing large sites that need to be decoupled

Are you migrating from a monolith, or starting a new site?

Performance Inputs:

_____ = Annual traffic for sites being decoupled

_____ = Existing site conversion rate

_____ = Average profit per conversion

Type of site: eCommerce, Marketing, or SaaS

Labor Inputs:

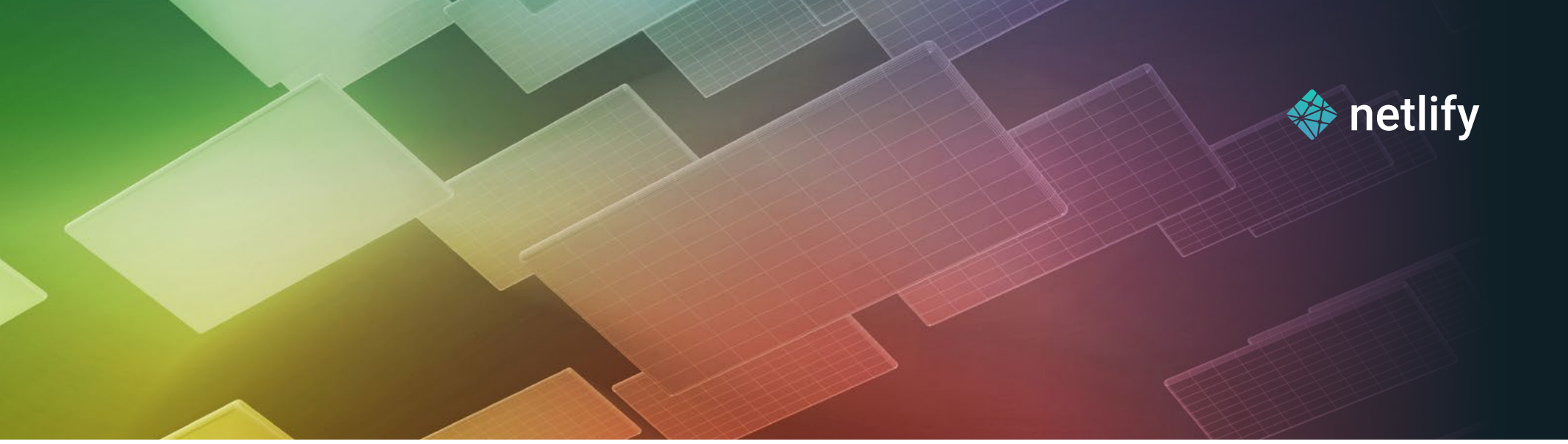
_____ = Number of FTE engineering contractors working on your site

_____ = Number of in-house FTE engineers working on your site

_____ = Annual salaries for contract developers

_____ = Annual salaries for in house developers

Using these inputs, we can help you estimate the benefits of using Netlify over legacy web architectures. To get in contact with Netlify to help you estimate your annual cost savings and how much incremental profit you could generate from higher conversion rates, please click here: https://www.netlify.com/enterprise/contact/



Get Started

Many organizations struggle to shift away from building and deploying websites on legacy, monolithic applications because of the perceived cost and risk. With Netlify, you can quickly shift to a modern approach to web development which yields better performing sites with higher conversion rates, maximized productivity for your developers, and reduced overall infrastructure costs. Contact a Netlify expert to discover how Netlify can help your organization unlock productivity, performance, and scale with the modern web.

Contact a Netlify expert to get started.

Notes:

[1] Unbounce Page Speed Report

[2] Deloitte, Milliseconds Make Millions

[3] Google Search Central Blog

[4] Stack Overflow Developer Survey

[5] University of California Irvine: The Cost of Interrupted Work

[6] Forrester, The Total Economic Impact of Netlify

[7] Datareportal Global Statshot

[8] Deloitte, Milliseconds Make Millions

[9] Netlify Pan Macmillan case study

[10] Netlify Pan Macmillan case study

[11] Forrester, The Total Economic Impact of Netlify