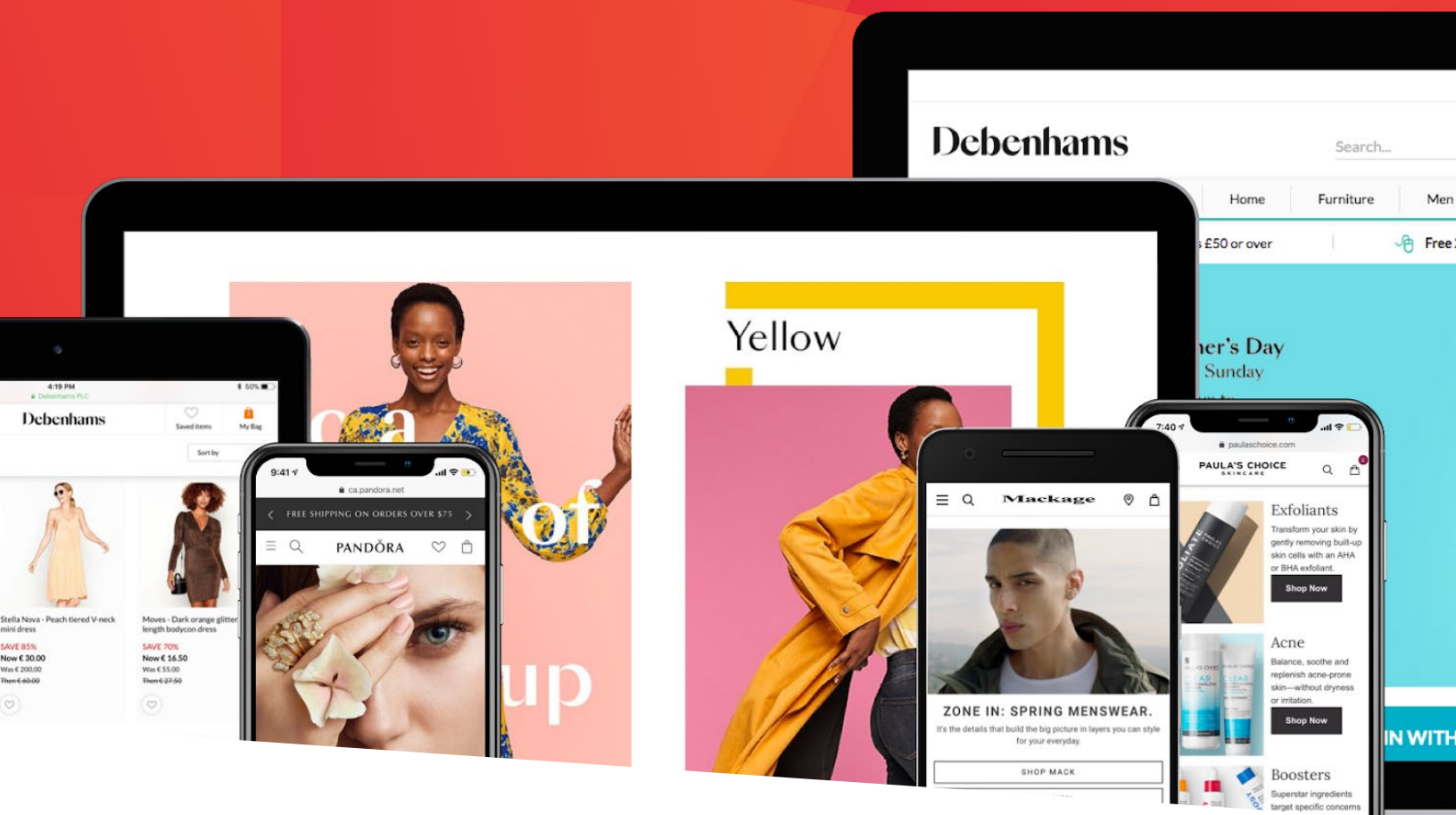


The Enterprise Guide to Headless Commerce Front-ends



How to build a high-performing front-end that unlocks the agility.



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TL;DR

There are 3 different approaches to delivering front-end experiences, but only a headless (or API-led) approach enables you to stay ahead of shopper expectations and deliver amazing digital experiences that drive top-line growth.

Not many have fully gone down this route because it used to require building an entire custom front-end layer from scratch, which can introduce risk and lengthy timelines. Now a Front-end as a Service offers an alternative path to going headless. In this guide, we'll break down what to consider with respect to building a headless front-end from scratch versus with a Front-end as a Service.

If you've got a replatform, website redesign, or a headless strategy on your roadmap, then this is the guide for you. It'll help you decipher the best way to build a new front-end that breaks the replatform-revamp-repeat cycle so that you never have to rip out your front-end and start from scratch again.



Shoppers expect digital experiences to be fast, immersive, personalized, engaging, and easy. While businesses recognize that these amazing digital experiences drive top-line by improving SEO, boosting revenue, and ultimately increasing brand equity, the pace of digital experience technology is accelerating, making it almost impossible to keep up.

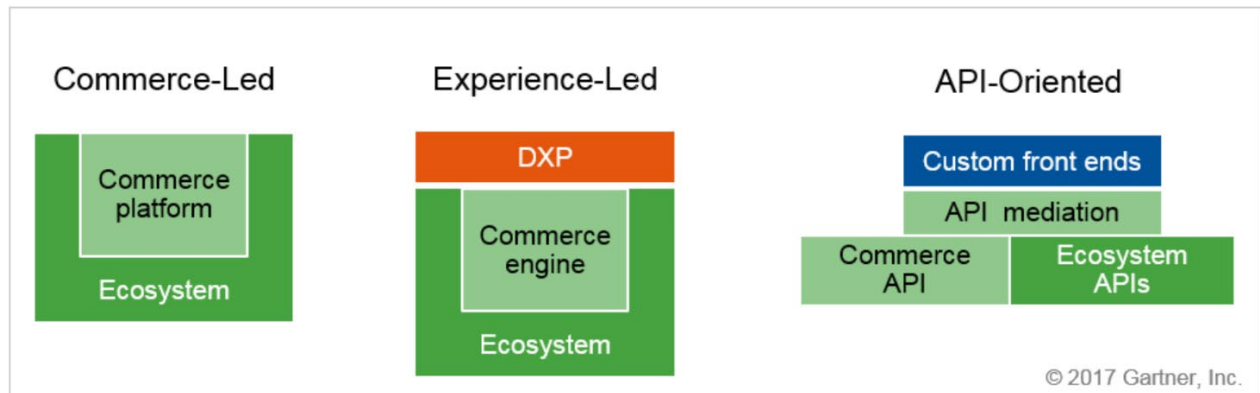
Digital experience technology is advancing faster and faster due to advancements in cloud, mobile networks, and tech giant investment. On top of this, there are more touchpoints and variations than ever before, which means more to test, build, and operate. It was easy back when a website was just a static catalog built for desktop, but then ecommerce for desktop emerged, then ecommerce for multiple devices, then native apps, then app-like experiences, then A/R, voice, chat – you get where we’re going with this!



Each leap in technology results in a leap of customer expectations, and businesses can't keep up without redefining how they deliver the front-end experience.

Three Approaches to Delivering Front-end Experiences

There are 3 different approaches to delivering front-end experiences, as outlined by Gartner Research below.



Source: Gartner (September 2017)

1

Commerce-Led	Experience-Led	API-led (or Headless)
The front-end experience is built on the ecommerce platform.	The front-end experience is built on the digital experience platform (DXP) or content management system (CMS).	APIs are used to pull content and functionality from the ecommerce platform and CMS into a custom front-end or Front-end as a Service.

1. Gartner (September 2017) The Three Approaches to Digital Commerce Platform Architecture and How to Choose Among Them, Refreshed 14 May 2018, Published 28 September 2017. Figure 1. The Three Approaches to Commerce Architecture



Why Commerce & Experience-Led Will Soon be the Way of the Past

Most retailers and brands today manage their digital experiences with a **commerce-led** or **experience-led** approach. In other words, the front-end experience is built within either the CMS or ecommerce platform, so it's tightly coupled to the backend.

Because of the tightly coupled architecture, every time there's a leap in technology, retailers have to replatform or revamp their site to keep up. Replatforming requires rebuilding everything from scratch, which is risky and requires costly re-orgs and retraining. While revamping means squeezing more out of what you have by layering on point solutions and redesigns.

This costly replatform-revamp-repeat cycle results in a complex and tightly coupled architecture that slows organizations to a crawl.

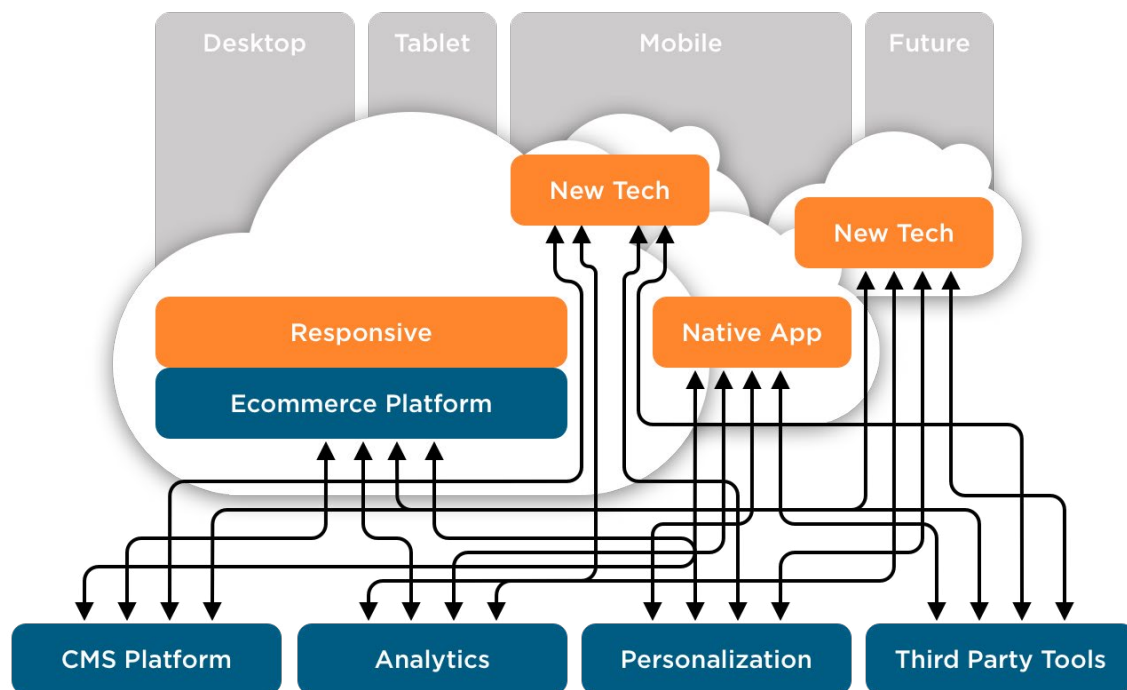
Teams Can't be Agile

Teams can't move quickly when the front-end is locked into the same pace of innovation as the backend and all user experience changes require a heavy redeploy of the CMS or ecommerce platform.

Some may perceive an experience-led approach as more agile than commerce-led because it enables fast changes to certain parts of the experience – copy, images, video – but retailers still can't make UX changes quickly or easily. The goal should be to unlock the entire team to make larger experience changes beyond just copy and content.

The Full Value of Backend Systems Can't be Activated

In the example below, the CMS functionality has to be forced through the ecommerce platform before it can be exposed on the front-end. With an experience-led approach, the opposite is true. Either way, you're not able to activate the full value of these systems without significant effort when they're not connected directly to the front-end.



An example of a commerce-led approach

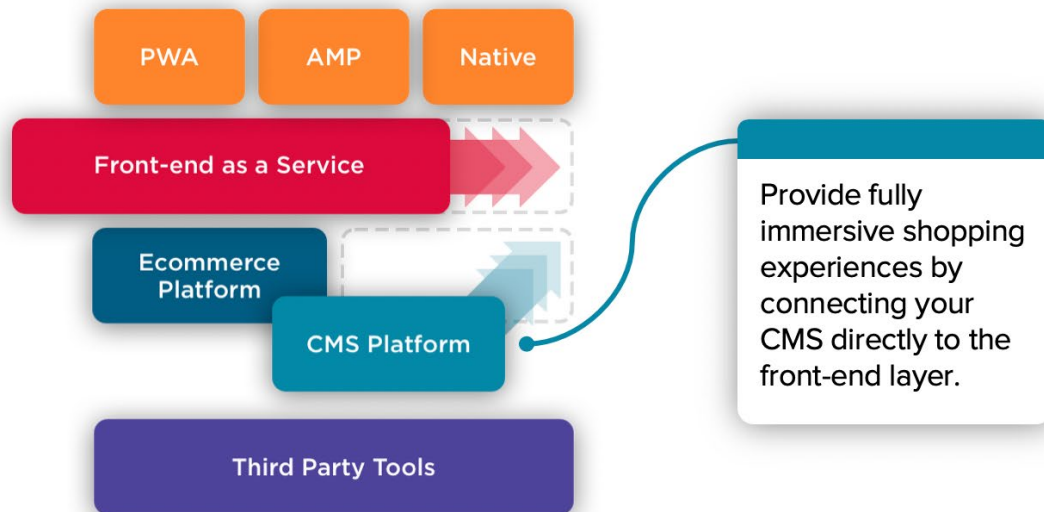
Front-End Investments Aren't Future-Proofed

Finally, you'll lose any previous customer experience investments when it comes time to replatform with a tightly coupled approach. For most, this means starting from scratch every 3-5 years.

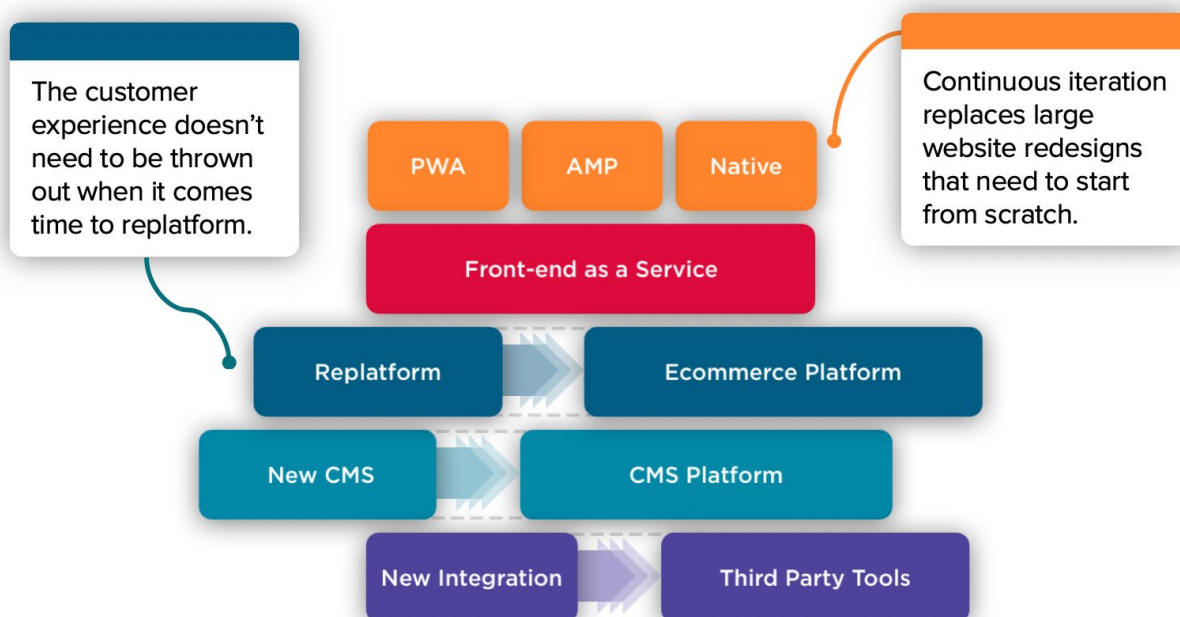
Break the Cycle with a Headless Approach

It's time to break the replatform-revamp-repeat cycle with an API-led headless commerce architecture that enables you to stay ahead of shopper expectations and deliver amazing digital experiences that drive top-line growth.

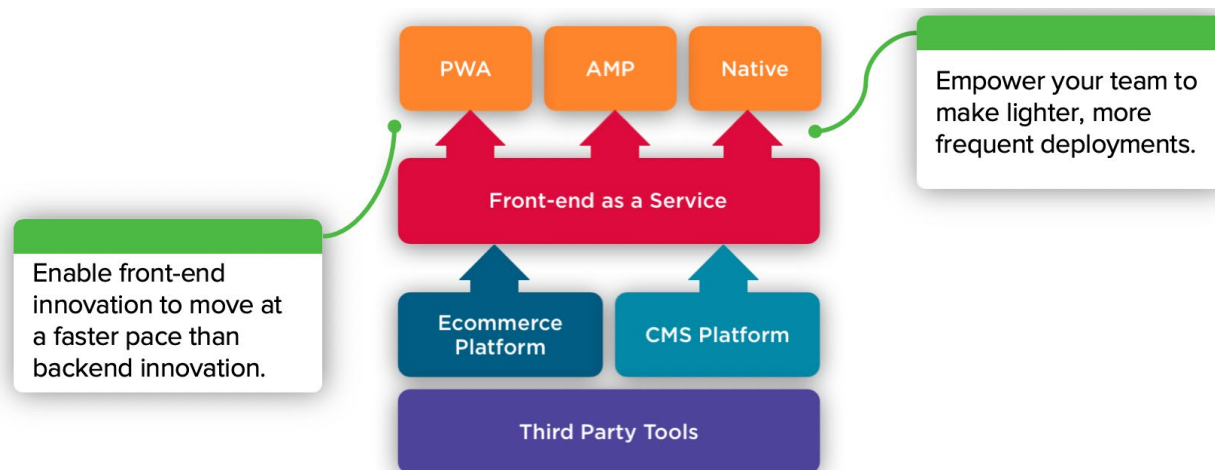
Introducing a headless commerce approach will activate the full value of the CMS and ecommerce platform by lining them up side by side.



It will also unlock agility by separating the front-end from the backend.



And it will future-proof front-end wins and knowledge by isolating them from backend changes.



Building Custom vs. Building with a Front-end as a Service

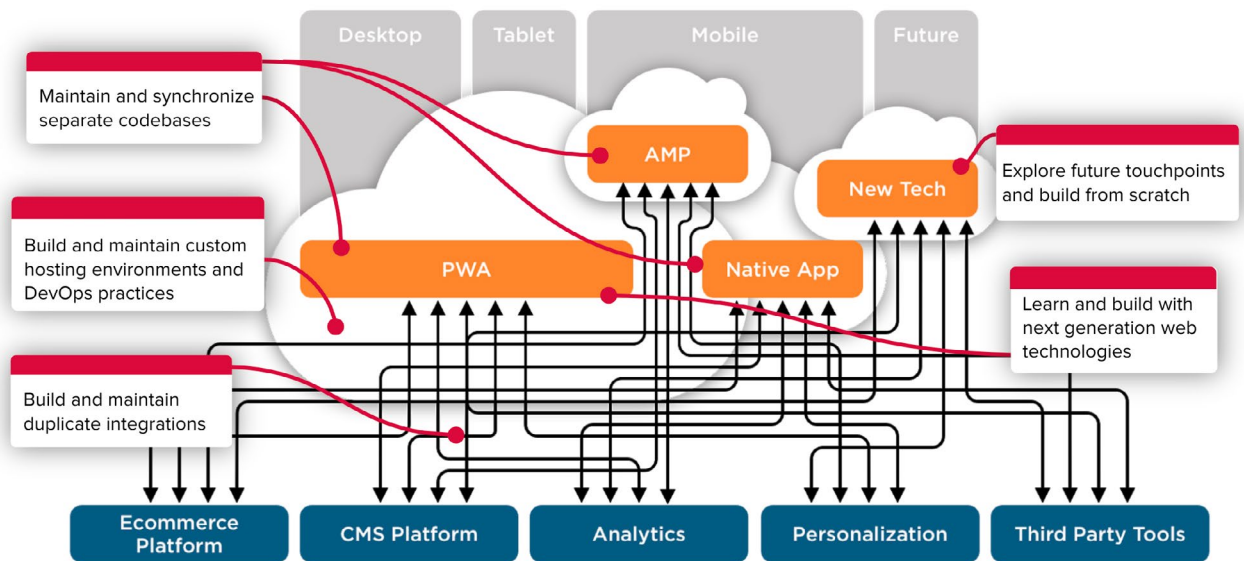
A headless commerce approach isn't new – Gartner came out with their aforementioned report back in 2017. However, not many have fully gone down the headless path just yet because it always required building a new custom front-end layer from scratch, which introduces risk and lengthy timelines.

Now a Front-end as a Service offers an alternative to building from scratch – it reduces the time, costs, and maintenance challenges associated with going headless.

But before we get into that, let's look at what it takes to build a custom front-end from scratch.

The Complexities of Building a Custom Front-End from Scratch

Many perceive a custom solution as the most flexible option, but in reality, most teams will spend their time building the foundation with frameworks, a hosting environment, and integrations that don't have a direct impact on the customer experience.



The complexities of building from scratch.

When building a new front-end, you're probably going to want to use the latest technology. On the web, that would be Progressive Web Apps (PWA) and Accelerated Mobile Pages (AMP).

Learning to build with these modern technologies can be challenging because it's not like building a traditional website. On top of the initial build, you should consider maintenance. Extending to new touchpoints like native apps will require maintaining and synchronizing separate codebases, and any future touchpoints will have to be explored and built from scratch.

With a commerce- or experience-led approach, the front-end is built on the ecommerce/ CMS cloud or an on-premise solution. But in this new headless world, you'll have to build and maintain a custom hosting environment and all the DevOps practices that surround that, which requires major investment to:

- Set up, maintain, and improve continuous integration, continuous deployment, and testing automation, as well as keep up with the latest trends, best practices, and services.
- Continuously update the build to incorporate new APIs, and research and test how to best apply these APIs to a retail environment.
- Deploy and scale modern front-ends globally in a repeatable manner with complex systems such as server-side rendering, caching, and data pipelines.

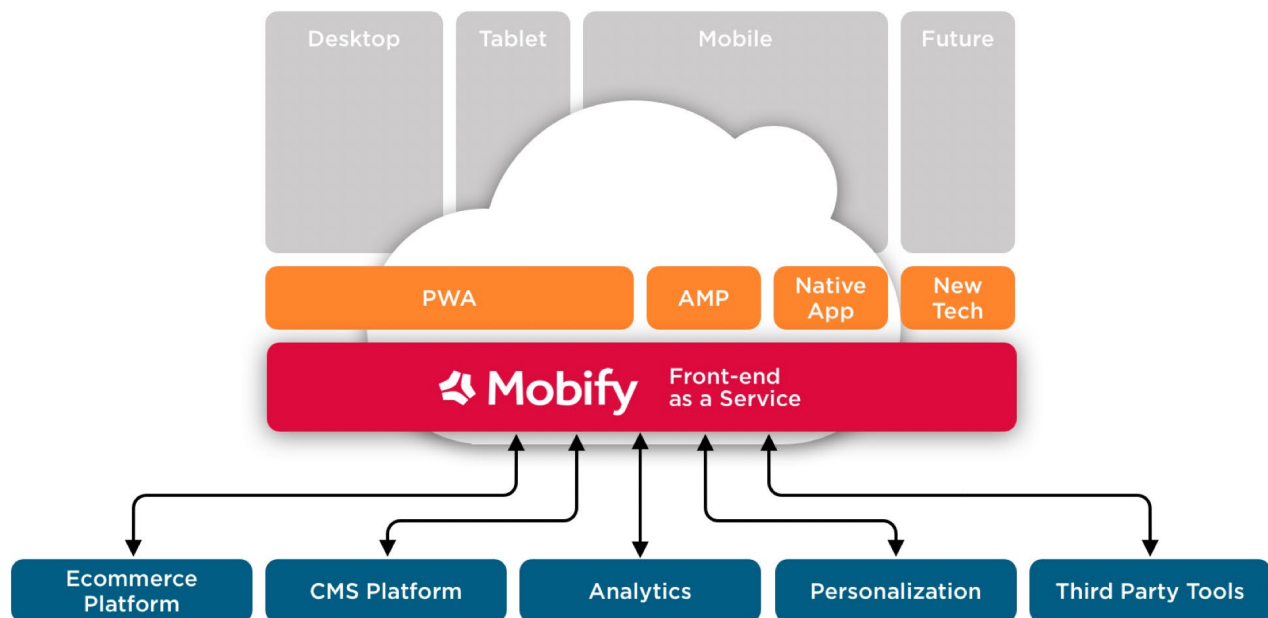
- Build in resiliency and constant monitoring across DNS, CDN, and multi-region deployments, which requires experience and effort beyond using public cloud/Platform as a Service.
- Continually monitor underlying systems for security patches and vulnerabilities, and roll out patches quickly across the hosting environment

Finally, a custom approach requires building and maintaining complex integrations. If you were to replatform in this environment, the front-end experience would be safe because it's separated, but all the integrations would have to be rebuilt.

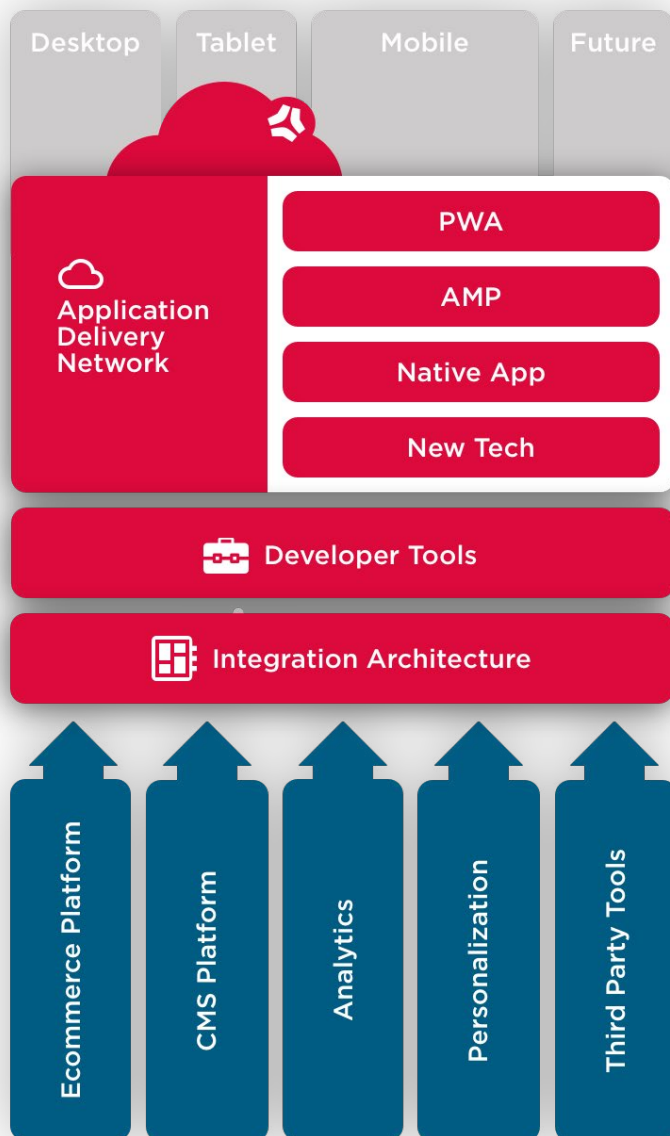
The Benefits of a Front-end as a Service

A Front-end as a Service offers a better, faster path to a headless architecture, and takes a best-of-breed approach to ecommerce. Instead of going at it alone, you get a foundation and tooling that shaves dollars and time off of your project.

Mobify's Front-end as a Service includes three key differentiators that speed time to market, unlock agility across your organization, and enable your team to focus on building the brand rather than tooling.



Mobify's Front-end as a service offers a better, faster path to a headless approach.



The 3 key differentiators of Mobify's Front-end as a Service are the Application Delivery Network, Developer Tools, and Integration Architecture.

Application Delivering Network

The Application Delivery Network offers a scalable, enterprise-grade cloud solution to deploy, host, and manage all high-performing front-end apps. It is built on cloud native and serverless technologies that auto-scale to support peak traffic and offload the stress of ensuring the same consistent performance globally no matter the level of traffic or shopper's location. This ensures that you don't have to worry about where to host your front-end experience, or develop the DevOps practices to run a custom hosting environment.

Developer Tools

Mobify's comprehensive set of developer tools empowers teams to build, test, and deploy amazing shopping experiences with Progressive Web Apps, Accelerated Mobile Pages, and native apps on a single codebase – ensuring you don't have to maintain and synchronize multiple siloed applications. The automated testing framework includes performance, end-to-end, and unit tests that reduce risk and enable you to make changes faster.

The average retailer deploys UX changes about once a month, while the **average Mobify customer does 5 deployments per month**. Since you're building on an evolving platform, you'll also get access to future customer experience technology so that you don't have to build future touchpoints from scratch.

API-Friendly Architecture

Finally, an API-friendly architecture integrates ecommerce, CMS, personalization, analytics, and third-party platforms to empower teams to easily add, swap, or remove any backend system. With this approach, not only is your front-end future-proofed, but you only have to update a single point of integration when you want to change a backend system. The platform's data integrations also route all key shopper events back to third party marketing and analytics systems.

“Mobify has allowed us a lot more agility. We have seen projects, product, and new functionality go into the market way more quickly than we’ve ever seen before.”



CHARLOTTE BURROWS,
DIRECTOR OF DIGITAL,
DEBENHAMS

Triggers: Replatforming, Redesigning, or Going Headless

If you're replatforming, redesigning your website, or planning to go headless, you should be evaluating a Front-end as a Service. You don't want to end up back in the same position in a few years – having to start all over again on a new front-end experience, or layering on point solutions that result in a fragile house of cards. Break the cycle by introducing a Front-end as a Service that offers a faster, more affordable, and less risky path to a headless approach. This will unlock agility across your organization, line up your backend systems side-by-side to activate their full value, and future-proof your customer experience so that you never have to start from scratch again.

“Mobify is the only company that offers a platform to build and manage your PWA front-end as a service. The technology slashes time-to-market and minimizes maintenance expenses by building on an ever-evolving Front-end as a Service.”



ANDREW MOTTAZ, SR. DIRECTOR OF
INTERACTIVE STRATEGY, ASTOUND COMMERCE

APPENDIX

Building Buy-In Across Your Organization

The digital experience touches so many departments across an organization and a Front-end as a Service can facilitate success across each. If you're looking to build internal buy-in, here are the benefits you can focus on with each department.

Tech/IT teams will be able to...

- Adopt the latest and best-in-class technology and frameworks
- Integrate easily with current technology investments
- Balance the need to go fast and experiment with the need to focus on security, performance, and scalability
- Leverage the momentum of the web as the open web platform, which will grow faster and last longer than closed ecosystems
- Decouple your front-end so that you aren't restricted by the release cycle of legacy systems
- Get an elevated starting point so that you can focus on strategic innovation

Ecommerce/Digital teams will be able to...

- Improve the digital customer experience and get closer to your customer
- Improve web performance
- Increase conversions
- Future-proof for emerging trends and touchpoints that shoppers will expect
- Encourage experimentation and daily customer experience improvements

Marketing teams will be able to...

- Improve brand perception with a better digital customer experience
- Create more loyal customers
- Unlock the ability to do continuous design improvements
- Improve SEO
- Leapfrog competitors stuck on legacy solutions
- Deliver on growth goals by turning mobile into a growth driver rather than a friction point



About Mobify

Mobify's Front-end as a Service is an API-driven front-end that unlocks the agility of a headless commerce approach and powers fast, immersive experiences with PWAs, AMP, and native apps. The enterprise front-end separates the customer-facing experience from backend systems to unlock agility, future-proof customer experience investments, and activate the value of backend systems.

As a market leader with 25+ enterprise PWAs including multi-brand, multi-region deployments with 75+ integrations, Mobify drove over \$1 billion in Gross Merchandise Value via Front-end as a Service in 2018, and is projecting to double that in 2019. Customers include digital innovators like Lancôme, Debenhams, Paula's Choice, Crabtree & Evelyn, Mackage, Syo & Kioa, Carnival Cruise Line, Pandora, US AutoParts, Hobbycraft, and Ann Summers.

Contact us to learn how a Front-end as a Service could drive value for your organization.

CONTACT US

mobify.com

