E-BOOK

HEADLESS MAGENTO GUIDE

Benefits, tools, how-to, etc. Everything you need to know about switching to Headless Magento

www.front-commerce.com

CONTENTS

INTRODUCTION & INSIGHTS BY FRONT-COMMERCE CTO, PIERRE MARTIN
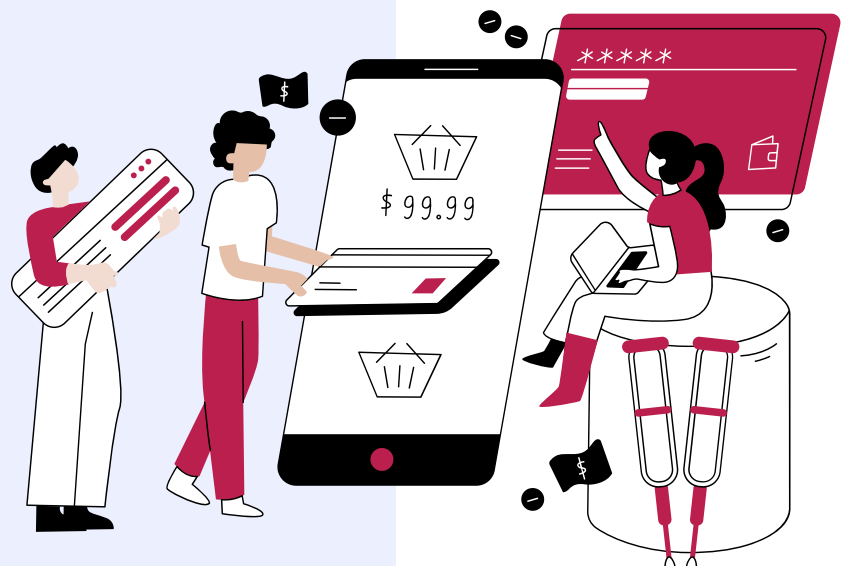
The eCommerce landscape is constantly evolving with new software and online selling methods emerging each year.

2007: ENTER MAGENTO

In 2007, Magento was launched. Over the past 15 years, Magento has evolved, enhancing features and user interfaces for merchants to provide better service to customers and improved tools for their teams. Its modular structure has fostered a vibrant ecosystem, with third-party services offering modules for integration, from shipping and payment methods to ERPs, CRMs, and marketing automation. Merchants and developers alike found Magento adaptable to their evolving needs and workflow.

> **"I believe merchants who are still selling online today are those who embraced uncertainty & continually challenged themselves."**
>
> - Pierre Martin, Front-Commerce

SELLING ONLINE IS TOUGH

E-commerce is challenging, with merchants adopting diverse strategies for catalogue organization, pricing, and promotions. Some have expanded internationally, adapting to evolving customer behaviour and the changing digital landscape, where mobile ordering and social media visibility are paramount. Meeting the high user experience standards set by leading online services is now crucial, as design, interactions, and performance expectations have dramatically shifted over the past decade. These changes also significantly impact SEO, with search engines prioritizing mobile-friendly, high-performing websites.

TECHNOLOGY HAS CONTINUED TO EVOLVE

Online technology advances rapidly, with new standards and improvements continually emerging. As an example, Magento store owners have to deal with:

- new PHP versions
- libraries getting deprecated
- software projects die (do you remember OSCommerce?)

While some tech changes, like updated PHP versions, offer performance and code maintainability benefits, others, like replacing deeply embedded JavaScript dependencies, pose significant challenges. Although some solutions provide stability amid these shifts, they may not fully satisfy the need for continuous adaptation to evolving user standards and usage.

THE RISE OF 3RD-PARTY SERVICES

The ever-changing landscape of external services is a reality that savvy merchants embrace to gain a competitive edge. Whether expanding internationally, tapping into new payment methods, or engaging communities via social media widgets, external services offer invaluable flexibility. These services provide a host of features, such as streamlined checkouts, personalized product recommendations, enhanced search results, frictionless returns, cryptocurrency processing…

With the rise of robust APIs, service providers prioritize integration with various platforms, enabling merchants to innovate swiftly by seamlessly incorporating these APIs into their existing workflows. Staying ahead by leveraging new services before they achieve widespread integration with popular e-commerce platforms can be a distinct competitive advantage. Traditional systems, on the other hand, may encounter limitations when attempting to integrate these services, precisely the challenge that the new generation of solutions aims to resolve.

HEADLESS COMMERCE AND COMPOSABLE STOREFRONTS

Headless commerce and composable storefronts offer an alternative way to move forward. Merchants can begin by relocating parts of their monolith to external services for specific tasks.

For example, merchants can use a headless CMS to manage their store's content and use a composable storefront to build a custom
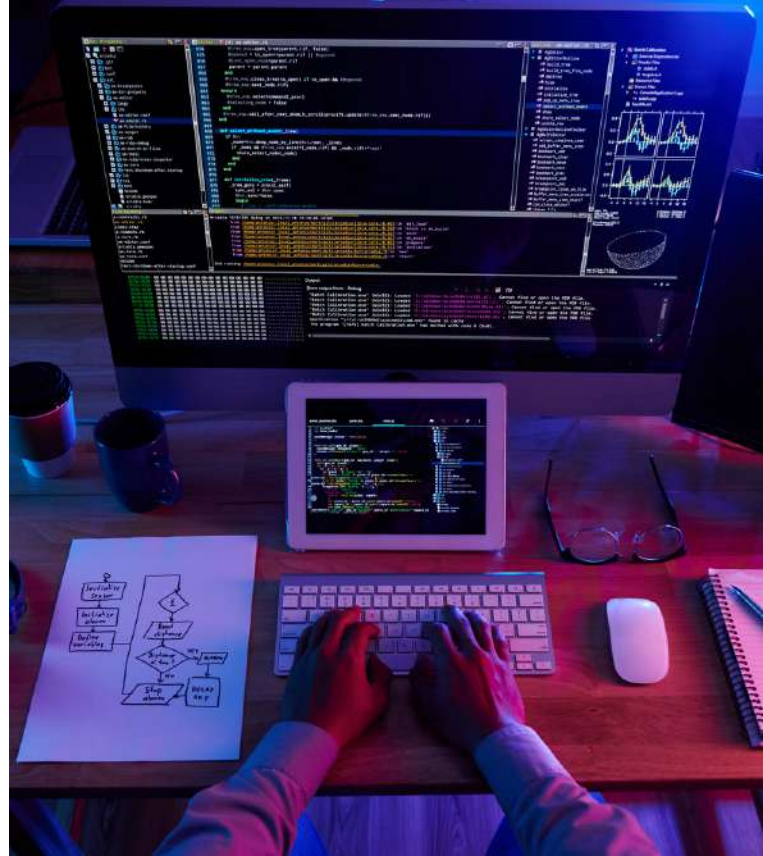
user interface with modern technologies, while keeping the same underlying platform for the tasks it already handles.

This approach allows merchants to keep their existing features while gaining access to features provided by external services. It also makes it easier and faster for developers to integrate new services.

So do you really need to go implement a headless frontend over your Magento backend? Well, it depends. You could keep investing in incremental improvements to your current frontend theme.

But if you aim at differentiating your brand from competitors thanks to innovative commerce practices (adapted to your customers and your company), it may be worth it!

Pierre Martin
CTO
Front-Commerce

WHAT IS HEADLESS COMMERCE?

Before diving into whether Headless Commerce is right for your Magento project, we need to explain exactly what Headless Commerce is. So let's dive into a brief description and take a look at some of the key pros and cons of this architecture.

HEADLESS COMMERCE MADE EASY

Headless Commerce is an e-commerce architecture where the frontend and backend are separated so they can function independently from one another: they are decoupled. This allows an e-commerce brand to build a custom e-commerce platform that matches its customer and business needs. The new "headless platform" can then be updated or added to without heavy development cycles, and can even be evolved to a Composable Commerce approach.

WHAT IS THE DIFFERENCE BETWEEN A FRONTEND AND A BACKEND?

- The front-end is the presentation layer of a website or user interface. It's what we see when we are on a web page and the technology behind it.
- The back-end is the e-commerce solution that manages the functions and the data via servers. It controls how the website works.

Traditionally both the front and back ends of a platform are tightly knit together in a single system. But in the case of headless commerce, the frontend and backend are more loosely connected via APIs. It is important to keep in mind that a backend and frontend both work together to serve a single goal, whether they are coupled (monolithic) or decoupled (headless).
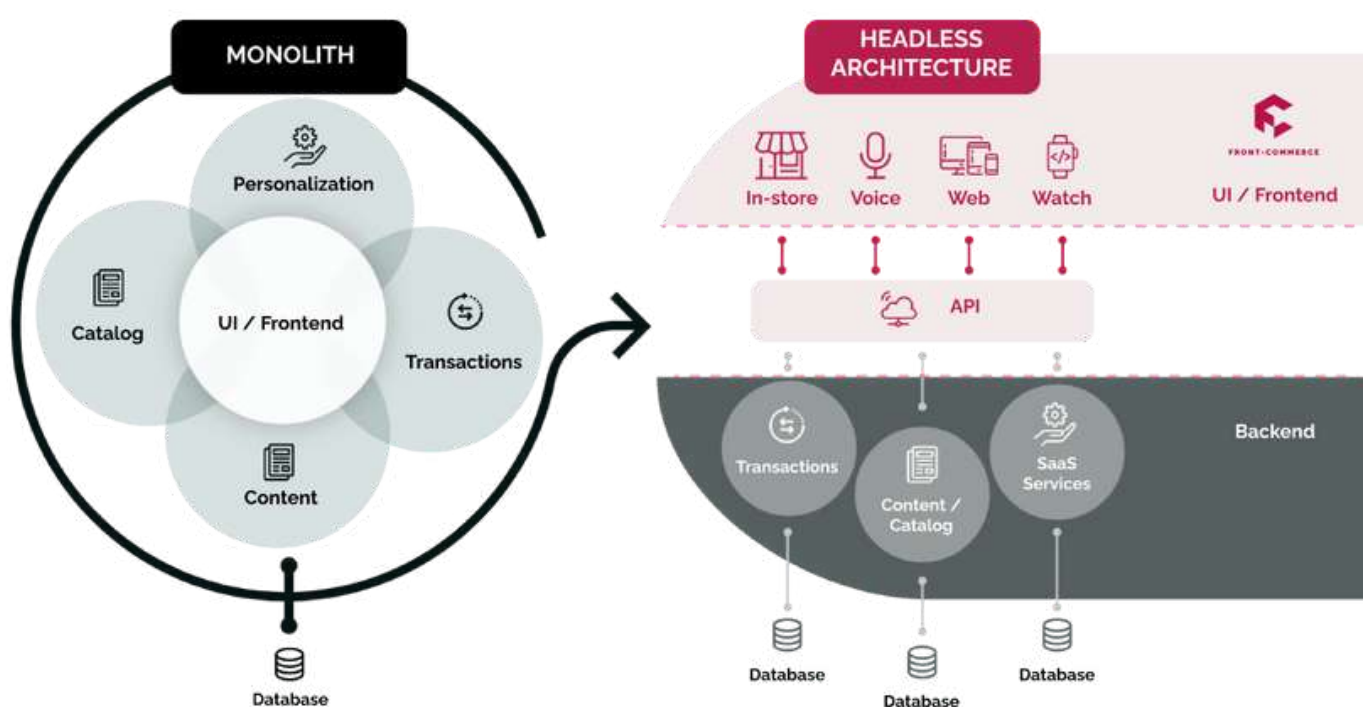
THE IMPORTANCE OF HEADLESS COMMERCE

In its most basic form, headless commerce is the separation of an e-commerce application's frontend and backend. This architecture allows brands to develop whatever they want, whenever they want. Above all, it allows them to improve the consumer experience, fast.
The use of APIs, experience managers, as well as the importance of IT partners, are all hallmarks of headless commerce. These resources are an essential component of any company's innovation strategy, delivering new functionality and experiences that engage customers and keep them ahead of expectations.

What is the difference between monolithic and headless platforms?

Let's dive right in with a diagram that explains the difference between these two commerce approaches. Whilst it may seem that a headless architecture is more complex, if you look closely, the way that each element and service is independent from one another brings simplicity to the structure, not to mention current and future development.

With the pace of change in the retail industry, brands must embrace innovation like never before. Month-long development queues are common for any e-commerce, with eager creative and marketing teams ready to test new designs, text, and templates on the front-end asap. The headless approach speeds up a retailer's time to market up to 4 times faster, allowing new services to be implemented without disrupting the technical roadmap.

WHAT ARE THE ADVANTAGES OF HEADLESS COMMERCE?

If you're considering switching to headless commerce, these four major advantages are usually worth the effort and can help you grow your organisation.

Better employee adoption

Due to steep learning curves, some businesses may be hesitant to adopt new technology. Because everyone on your team can quickly access and update the front end without advanced knowledge, having a modern commerce platform combined overcomes this problem.

Better tools for your teams

Brands can create unique experiences for their customers that they won't find anywhere else. APIs are essential for ensuring coordinated, brand-consistent experiences across channels, which are powered by common commerce services like promotions, inventories, product information, and more.

Reduced development time

Developers save time on user interface changes since updates to the front end may be implemented quickly. In addition, with partner solutions and headless templates, developers can kick-start e-commerce projects with just a few clicks or some light coding.

Faster time to market

Businesses can swiftly develop new front end experiences with headless commerce. Reacting quickly to a new market trend can be accomplished with minimal back end effort. Businesses looking to improve their user experience should be aware that going headless will help them achieve higher levels of customer satisfaction.

Top 6 benefits of Headless Commerce

- Unlimited frontend development
- ROI: Reduced costs, increased conversions
- Agile at scale
- Personalized customer experience
- Faster time-to-market
- Compose your own commerce tech stack

HEADLESS MAGENTO: IS IT RIGHT FOR YOUR E-COMMERCE BUSINESS?

Now that we've clearly identified what Headless Commerce is, let's see if Headless could be the right fit for your Magento e-commerce.

FIRST OFF, CAN MAGENTO BECOME HEADLESS?

In short, yes.

Magento is traditionally a **monolithic platform**, and it has a default customizable 'theme' that serves as a frontend. However, that theme can be **switched out for any other Magento-compatible frontend.** The system's decoupled architecture allows seamless communication between layers using REST or GraphQL APIs. These APIs are designed to be interoperable, enabling a headless Magento/Adobe Commerce backend to connect effortlessly with frontends developed in any programming language.

The separation of components allows retailers to create **fully customised storefronts** while integrating them seamlessly with their **existing Magento backend**. Magento/Adobe Commerce continues to handle all commerce-related tasks, such as payment processing, order management, and product administration. This setup empowers businesses to deliver **personalized experiences** while efficiently managing their core e-commerce functionalities. And creating personalized, engaging experiences that are tailored to customers' specific needs and emotions has never been more important.

WHY SHOULD I OPT FOR HEADLESS MAGENTO?

Let's take a look at some of the best things you can get out of a Headless Magento e-commerce architecture.

1. Flexibility in Frontend Development

With a decoupled architecture, e-commerce retailers can employ **modern frontend technologies and frameworks**, providing greater flexibility and control over the user interface and user experience. This freedom enables you to create **unique and innovative storefronts** that better align with your brand.

2. Faster Performance

The absence of frontend code coupling with backend processes reduces the overhead, resulting **in faster loading times and smoother interactions for your customers**. Enhanced performance can positively impact search engine rankings and customer satisfaction.

3. Multi-Channel Personalisation

A headless architecture will allow you to build **separate and personalised storefronts for various channels**, such as web, mobile, voice assistants, and more. Each storefront can be tailored to cater specifically to the preferences and characteristics of your target audience.

4. Third-Party Integrations

Headless architecture facilitates seamless integration with third-party services & APIs. You can **add specialized tools and services** for marketing, analytics, customer support, and other business operations, enriching your e-commerce ecosystem.
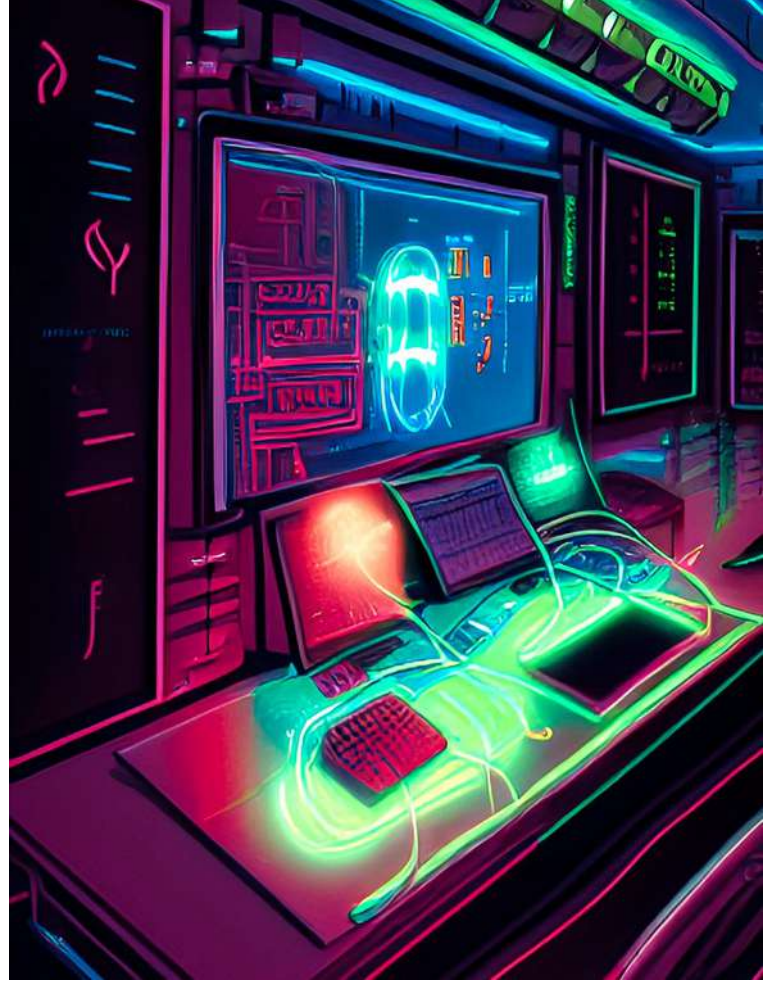
5. Future-Proofing

A headless architecture allows you to adapt quickly to emerging technologies and trends without the need for a complete platform overhaul. You can **easily integrate new functionalities, experiment with different frontend approaches**, and stay ahead of your competitors in the dynamic market.

6. Scalability and Reliability

When facing increased traffic or demand, you can **scale each component separately**, allocating resources where they are needed most. This flexibility allows for **better resource utilization and more efficient distribution of workload**. Additionally, by leveraging content delivery networks (CDNs) and caching mechanisms, headless architectures can further enhance scalability by reducing server response times and efficiently serving content to users across the globe.

WOULD A MAGENTO HEADLESS ARCHITECTURE BE RELEVANT FOR MY BUSINESS?

Headless is a great e-commerce architecture to adopt. But it's not necessarily for everyone. Here are the types of companies that could truly benefit from a headless commerce approach:

- **Large Retailers with Diverse Product Offerings:** Businesses that have extensive product catalogues can benefit from the advanced capabilities and better user experiences that headless commerce offers.

- **Fast-growing e-commerce retailers:** If you're growing fast, scalability should be at the centre of your considerations. Headless architectures are highly scalable and components can be added, removed, and scaled independently and quickly.

- **Brands Focused on Customer Experience:** Companies that prioritize delivering exceptional customer experiences, like luxury brands, can use a headless architecture to design innovative and interactive user experiences. This approach enables them to experiment with cutting-edge technologies.

- **B2B retailers:** B2B retailers often have out-of-the-ordinary e-commerce requirements. Many B2C functionalities will be irrelevant, and likewise, many components are B2B specific. Headless is the ideal solution for a fully customisable architecture.

- **Businesses with Complex Backend Operations:** E-commerces with intricate backend processes, such as inventory management, order fulfilment, and logistics, can leverage a headless platform to streamline these operations while still offering a dynamic and modern user experience.

- **Brands with Global Reach:** E-commerce businesses with an international customer base can leverage headless Magento's ability to optimize performance across various geographical locations. By using CDNs and caching mechanisms, they can ensure fast loading times and consistent user experiences worldwide.

- **Businesses Requiring Many Third-Party Integrations:** E-commerce retailers that rely on various third-party services and APIs for marketing, analytics, payment processing, or other specialized functions can seamlessly integrate these services into their e-commerce ecosystem using headless commerce.

WHAT SHOULD I CONSIDER IF I'M THINKING OF SWITCHING TO HEADLESS MAGENTO?

Whether a headless Magento architecture is relevant for your business depends on various factors and specific needs. Consider the following aspects to determine its relevance:

1. Business Objectives

Define your business objectives and assess whether a headless architecture aligns with your long-term goals. Consider if you need greater frontend flexibility, multi-channel capabilities, improved performance, or easier integration with third-party services.

2. Technical Expertise

Evaluate your team's technical skills and capabilities. Headless architecture may require additional development expertise, especially on the frontend side, as you will be working with separate frontend technologies and frameworks.

3. Frontend Flexibility

Determine if your business needs highly customizable frontends to deliver unique user experiences. Headless Magento allows you to implement modern frontend technologies, but it requires careful planning and execution.

4. Scalability Requirements

Consider if your business experiences fluctuating traffic or anticipates significant growth. Headless Magento's decoupled nature can improve scalability by independently scaling frontend and backend components.

5. Integration with Existing Systems

Evaluate the integration process with your existing systems and third-party services. Ensure a smooth transition and assess any impact on your current workflows and operations.

6. User Experience Impact

Analyze the potential impact on the user experience during and after the migration. Ensure that the new frontend maintains or enhances the overall shopping experience for your customers.

> " The decision to embrace a Headless architecture requires **thoughtful consideration and careful planning.** While evolving your Magento platform to adopt this modern approach offers exciting prospects, it also presents a path that demands a deeper exploration of its challenges. As more companies venture into this space, **the realm of headless commerce remains ripe for discovery**, innovation, and ongoing discussion in the pursuit of providing exceptional online shopping experiences.

Laurent Lacaze
CEO, Front-Commerce

HOW TO TAKE MAGENTO HEADLESS

So you've decided that you'd like to adopt a headless architecture for your Adobe Commerce Magento 1 or Magento 2 e-commerce? But not sure where to start? We're here to help. Let's delve deeper into the step-by-step process of implementing this transformative change, offering insights and guidance to ensure a successful and smooth transition towards a more agile, flexible, and customer-centric e-commerce experience.

THE DIFFERENT MIGRATION STRATEGIES FOR HEADLESS MAGENTO E-COMMERCE

Go all out with a Big Bang: This strategy involves an all-in-one migration to headless Magento. It means overhauling the entire architecture and changing every aspect of it at the same time. This requires a well-prepared team and the capacity to handle potential challenges and disruptions during the migration process. This approach is quite complex and has quite a few drawbacks including:

- A high risk of expensive failure,
- The possibility of needing a complete roll-back if there are errors,
- Requires downtime,
- It can be difficult to isolate the errors when doing all the changes at once.

Progressive migration for more peace of mind: In this method, businesses opt for a step-by-step migration, gradually moving components of their e-commerce store to a headless architecture. This approach offers more control and minimizes the risk of major disruptions. It allows businesses to migrate certain components to a headless setup in isolated phases. This not only makes development easier, but also allows an easier measurement of the impact of each change. Scroll down to our case study to learn more.

Within these two larger strategies, there are several different approaches you can choose from to go Headless with Magento 1 or Magento 2.

In-house from A to Z

- Custom build solutions in-house to fit your specific needs.
- Require immense manpower, time and is costly.
- Not compatible with best-of-breed technologies that are experts in their speciality.

Composable Commerce Approach

- Ideal for larger-scale e-commerce brands that seek maximum customization.
- Keep your Magento backend and build a bespoke frontend.
- Gain complete control over your tech stack.
- Demands significant technical expertise and development effort.

Frontend-as-a-Service (FEaaS)

- Ideal for businesses looking for a more streamlined and pre-built solution.
- These all-in-one solutions provide a unified frontend layer that connects with
- best-in-class technologies, (CMS, CDN, search & product discovery, payment etc.)
- FEaaS simplifies implementation, reduces technical complexity, and enables faster time-to-market for a headless Magento store.

Custom Headless PWA

- Ideal for businesses seeking complete control over their frontend & user experience.
- PWAs offer faster page loading, improved user engagement & offline functionality.
- Requires experienced devs and longer development lead times.
- Alternatively, you can work directly with Adobe PWA or a solution like Front-Commerce that can also offer more benefits.

HOW TO KNOW WHAT STRATEGY TO CHOOSE

Selecting the most suitable migration strategy for your headless Magento e-commerce store is a critical decision that can significantly impact your business's success. To make an informed choice, consider several key factors that align with your unique situation.

1. Size of Company and Technical Knowledge

Assess your company's size and technical expertise. Larger organizations with well-established development teams may want a more hands-on approach to the migration process. On the other hand, smaller companies might prefer to delegate as much as possible.

2. Timeframe

What is your desired timeframe for the migration project? If you need to launch certain specific components asap, but have more wiggle room with others, a progressive migration may provide more peace of mind, allowing you to manage each step carefully and adapt as you go. On the other hand, if you've got plenty of time and prefer a big overhaul even if it takes longer to launch, consider a Big Bang approach if your team is prepared for it.

3. Budget

Determine the resources available for the migration. Custom developments and composable commerce approaches may require more significant investments, while PWA solutions and FEaaS platforms might offer a more cost-effective solution.

4. Complexity and Risk Tolerance

Assess your company's willingness to take on complexity and potential risks. Progressive migration provides a safer approach for organizations seeking to mitigate risks and test the waters before fully committing to headless commerce.

5. Long-Term Vision

Think about your long-term vision for your e-commerce store. Does your company plan to continuously innovate and expand its offerings? Some strategies might offer more room for future innovations and adaptability.

A STEP-BY-STEP GUIDE TO MIGRATING TO HEADLESS MAGENTO

This guide is a rough estimate of the steps you will need to take to migrate your Magento e-commerce to a headless architecture. Of course, depending on the strategy you choose and its specifics, you will need to add/remove a number of steps.

Assess Current Store Setup

Conduct a comprehensive assessment of your current Magento store. Analyze its features, performance, and user experience to identify the areas that need improvement.

1

Select Your Migration Strategy

Based on your analysis, select the strategy that seems right for you. This will typically require working with a digital agency.

2

Select Your Solutions

If you are working with a digital agency, they will present the solutions they suggest you work with. For example, for product search and discovery, they could suggest Algolia and for a FEaaS, they could highlight Front-Commerce. If you are not working with a digital agency, you will have to research and select the solutions yourself.

3

Plan the Migration

Working hand-in-hand with your new headless solutions, create a detailed migration plan that outlines the specific steps, timelines, and responsibilities for each aspect of the migration process.

4

Develop the Frontend

Depending on your chosen strategy, start building the custom PWA, integrating with the FEaaS platform, or developing a bespoke frontend to align with your business requirements.

5

Integrate Backend Services

Connect the frontend with the Magento backend using REST or GraphQL APIs to enable seamless communication between the two components.

6

Implement Third-Party Integrations

If required, integrate third-party services like payment gateways, analytics tools, or marketing platforms into your headless Magento setup.

7

Optimize Performance

Fine-tune the performance of your headless store, focusing on page load times and overall responsiveness.

8

Deploy and Monitor

Once everything is tested & optimized, deploy your headless Magento store to your live environment. Continuously monitor performance & user experience to address any issues that may arise.

9

MAGENTO FRONTEND: ALTERNATIVES TO MAGENTO'S DEFAULT THEME

MAGENTO'S DEFAULT THEME

When it comes to the visual appearance of an online store, Magento provides a default theme as a starting point for the frontend design. The default theme is a pre-built template that determines the layout, design, and overall user experience of the storefront. It serves as a foundation upon which merchants can build and customize their online store's look and feel.

The default theme offered by Magento combines simplicity with a clean and professional design, ensuring a user-friendly interface for customers. It includes essential features and elements such as a responsive layout, product display, shopping cart functionality, and various page templates like homepage, category pages, and product pages.

While the default theme provides a solid starting point, many merchants prefer to customize their online stores' frontend to align with their brand identity and unique requirements. They often seek alternatives to the default theme that offer more distinctive designs, enhanced functionality, and improved user experience.

The key limitations of Magento's pre-built solution:

1. **Limited Customization**
2. **Lack of Differentiation**
3. **Generic Features**
4. **Limits to Responsive Design**
5. **Performance Considerations**
6. **Compatibility Challenges**

Why you should choose an alternative

1. **Enhanced design and branding**
2. **Improved user experience**
3. **Flexibility and scalability**
4. **Integration with Magento**
5. **Community and support**
6. **Performance optimization**

By opting for an alternative frontend solution, merchants can seamlessly connect to Magento's backend, ensuring a harmonious integration of frontend and backend functionalities, ultimately leading to a more successful e-commerce presence.

FRONTEND-AS-A-SERVICE AS AN ALTERNATIVE TO MAGENTO'S DEFAULT THEME

A FEaaS (Frontend-as-a-service) solution could be an interesting alternative to Magento's default theme. A FEaaS is a comprehensive service provided by specialized companies that focus on offering frontend solutions for web applications or online platforms. These companies provide tools, frameworks, and services to enhance the design, functionality, and user experience of a website or application's frontend.

Frontend-as-a-service improves the user experience for:

customers	developers	business teams

There are a few things to keep in mind when considering FEaaS:

- Technical expertise: Pick a provider with experience in your industry. Different industries require different types of front-end development, so it's important to find someone who knows your specific needs.

- Your budget: One of the benefits of using a FEaaS provider is that it can be more affordable than hiring a full-time developer.

- Your specific: Ensure your provider offers the features you need, such as responsive design, cross-browser compatibility, and SEO optimization.

- Customer Service: Prompt and helpful support is essential from a FEaaS providers.

- Ask for client references and make a comparison with other providers

Remember, your front-end choice affects:

- Customers
- Designers
- Business teams
- Architects
- Developers
- Product managers
- Systems design

WHAT FEAAS SOLUTIONS ARE GOOD ALTERNATIVES TO MAGENTO'S DEFAULT THEME?

FRONT-COMMERCE

Front-Commerce is a platform-agnostic FEaaS, compatible with Magento2 / Adobe Commerce & B2B versions. It is designed to be responsive, fast, and mobile-friendly. It is built on the React framework, and uses Sass and BEM for CSS. It includes a design system based on Atomic Design and a number of features that are not available in the default Magento theme.

Pros:
- ✅ Offers fast and responsive headless PWAs for exceptional user experience.
- ✅ Seamless integration with Magento backend.
- ✅ Provides offline capabilities and improved performance through caching.
- ✅ Flexibility to customize the frontend design and layout.
- ✅ Responsive and mobile-friendly
- ✅ Includes a number of features that are not available in the default Magento theme
- ✅ Easy to install and configure

Cons:
- ❌ Limited community size.
- ❌ Requires technical expertise for customization and implementation.

VUE STOREFRONT

Vue Storefront is an open-source, headless PWA storefront that can be used with any eCommerce platform, including Magento. Historically built on the Vue.js framework, it now partially supports React too, and is known for its speed, performance, and flexibility.

Pros:
- ✅ Headless PWA
- ✅ Easy to integrate with other systems
- ✅ Scalable and flexible architecture.
- ✅ Integrates with various backend platforms, including Magento.
- ✅ Provides extensive documentation and an active community for support.

Cons:
- ❌ Can be complex to set up and configure
- ❌ Not as many features as some other Magento frontend alternatives
- ❌ Breaking changes and new incompatible versions
- ❌ Requires development expertise for customization and implementation.

HEADLESS FRONT-ENDS COMPARISON

Comparison Chart (as of 15/11/2022)

		Magento	Vue Storefront	Front-Commerce
General	Created	2018	2017	2015
	Software Development Mode	OpenSource	OpenSource	Proprietary
	Provider	Adobe	Vue Storefront	Front-Commerce
	Agnostic	✖	✓	✓
	HQ	USA	Poland & USA	France
	Front-end demo	→	→	→
	(GitHub)	→	→	→
	Pricing	Included with Magento	Free or Enterprise	Tarifs →
Integrations				
E-commerce connector	Adobe Commerce B2B	✓		✓
	BigCommerce		✓	✓
	Commercetools		✓	
	Magento 1			✓
	Magento 2	✓	✓	✓
	Proximis			✓
	Odoo		✓	
	Oro			✓
	SAP		✓	
	Salesforce Commerce		✓	
	Shopify		✓	
	Shopware		✓	
	Spree		✓	
	Sylius		✓	
	Vendure		✓	
CMS	Amplience		✓	
	Bloomreach Content		✓	
	Contentful		✓	✓
	Contentstack		✓	
	LexasCMS		✓	
	Magento CMS API	✓		✓
	Prismic			✓
	Sanity		✓	
	Storyblok		✓	
	Wordpress			✓

HEADLESS FRONT-ENDS COMPARISON

Comparison Chart (as of 15/11/2022)

Category		Magento	Vue	Front-Commerce
Search	Algolia		✓	✓
	Attraqt			✓
	Bloomreach Discovery		✓	
	Constructor.io		✓	
	Magento 2 ElasticSearch	✓		✓
Payments	Adyen		✓	✓
	Affirm			✓
	Apple Pay		✓	
	Braintree	✓	✓	
	BuyBox			✓
	Check MO	✓		
	Checkout.com		✓	✓
	G Pay		✓	
	HiPay			✓
	Klarna		✓	
	LYRA / Payzen			✓
	Mollie		✓	
	Monext Online (Payline)			✓
	MultiSafepay	✓		
	Ogone			✓
	Payment on account B2B			✓
	Paypal		✓	✓
	Stripe	✓	✓	✓
Tracking	Google Tag Manager	✓	✓	
	Google Analytics 4			✓
	Vue analytics		✓	
	Matomo			✓
Tech	**Release pace**	Minor version every 6-10 weeks	Releases Undated	Minor version every 6 weeks
	Frontend CodeBase	React.js	Vue.js	React.js
	Backend CodeBase	Redux	NodeJS	NodeJS
	Middleware	GraphQL	GraphQL	GraphQL

HEADLESS FRONT-ENDS COMPARISON

Comparison Chart (as of 15/11/2022)

		Magento	Vue Storefront	Front-Commerce
Cloud hosting solution	In-house Cloud hosting solution	✕	✓	✓
	CDN	✕	✓	✓
	24/7 Monitoring	✕	✓	✓
	Continuous deployment	✕	✓	✓
	Hosted in		Unknown	France
	Autoscaling	✕	Unknown	✓
	Problem Source Identification	✕	Unknown	✓
Other	Full coverage of features	Incomplete	Incomplete	**100%**
	i18n	✓	✓	✓
	Multi-Websites	✓	✓ (beta)	✓
	Checkout	✓	✓	✓
	Offline Support	✓ via Workbox	✓ Full	✓ Basic

THE BEST HEADLESS FRONTENDS

Every e-commerce has different technological needs, often influenced by their teams and customers. When it comes to choosing a storefront solution for your online store, there's a lot to think about. Framework, provider, features...

We've put together this comparison chart in order to outline the technical differences between some of the top e-commerce front-end providers available today. And ultimately help inform you in your choice.

CASE STUDY: KAPORAL

KAPORAL LEANS ON FRONT-COMMERCE TO IMPROVE ONLINE ENGAGEMENT

Kaporal is known for its commitment to its customers. In 2020, Kaporal decided to look to web agency Smile for an overhaul to its digital strategy, concentrating on improving its online customer experience. By reviewing the e-commerce architecture already in place it was decided that they move from Magento 1 to Magento 2, putting together a strategy that would allow them the flexibility to continue to adapt to customer demands now and in the future.

> **Front-Commerce is for us the most efficient solution to make our e-commerce platform evolve. The functional coverage and the technical quality bring a real gain in productivity.**
>
> **– Nicolas Ciccione, E-Business, CRM & Innovation Director, Kaporal**

ENHANCING THE CUSTOMER EXPERIENCE THROUGH INNOVATIVE TECHNOLOGY

French clothing company Kaporal has specialized in denim since its creation in 2004. It is around jeans that the brand has built a real success story. With a know-how acquired over nearly 15 years, Kaporal sells its products in over 100 branded physical stores, via more than 1600 retailers and also directly via its own e-commerce platform. In the French Fashion market, kaporal.com is ranked number 115 with > US$20m in online sales in 2021.

They had been using Magento 1 to power their e-commerce for a few years. Not only was this platform aging, the vulnerability of the M1 frontend was a factor accelerating the need for change. The Kaporal team studied the options available to it to make its e-commerce site evolve as efficiently as possible while preparing for the future. It was determined that migration to a microservices architecture was the innovative solution needed in order to reach for the best performance improvements possible.

HEADLESS AND MICROSERVICES ARE THE NEW STANDARD FOR E-COMMERCE ARCHITECTURE

A headless architecture combined with a PWA was chosen to skyrocket web performance and business efficiency. Decoupling the original Magento 1 frontend and backend, and migrating to Magento 2 with the implementation of the Front-Commerce frontend, has provided Kaporal with a seamless front-end experience across all current sales channels. With the possibility to evolve and add new channels when needed, under the same architecture.

A direct migration to Magento 2 implied a complete redesign project: long, costly and risky. Regardless of the technical aspects, the mobilization of internal teams is often very trying, not to mention the risk of turnover loss during the changeover. So Kaporal chose to migrate progressively, in two different phases. This also allowed them to isolate risks, especially around important seasonal sales periods for the retailer:

Kaporal's Progressive Migration
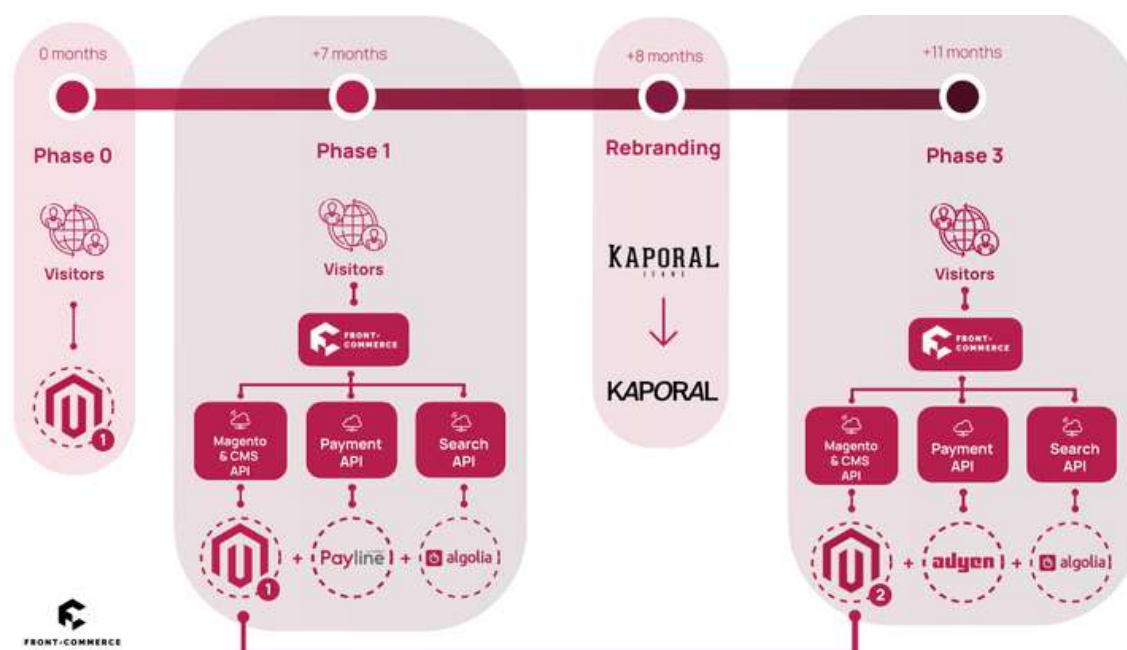
> **This architecture opens up new perspectives for Kaporal, such as the possibility of changing the back office without changing the front office. It will no longer be necessary to go through a complete platform overhaul, the modular architecture will therefore be more sustainable.**

SOURCE: Pierrick Olivier, Smile

FRONT-COMMERCE: A BRICK THAT YOU CAN LEAN ON TO ACHIEVE COMPETITIVE ADVANTAGE

The Kaporal team turned to Front-Commerce to learn more about our solution and know-how. For them, it is the best solution to meet the challenges they were facing:

- an essential component for a scalable platform with an agnostic approach that allows to connect different functional or business solutions together (composable commerce approach)
- an ultra high-performance frontend that optimizes conversion rates thanks to the PWA standard, especially on mobile phones, Kaporal's preferred target audience.
- UX freedom thanks to the decoupling of backend and frontend offering the possibility to provide users with the ultimate customer experience.
- an unbeatable time-to-market/cost ratio thanks to the industrialization level of the solution and its functional coverage (100% of the functionalities of Magento 1 and 2 in Community or Enterprise version are natively covered by Front-Commerce)

Accompanying digital growth, continually

Kaporal changed payment provider during the second phase of migration. The ease of switching service providers with a microservices architecture was not only demonstrated successfully, but effectuated without issues whilst changing the backend solution entirely.
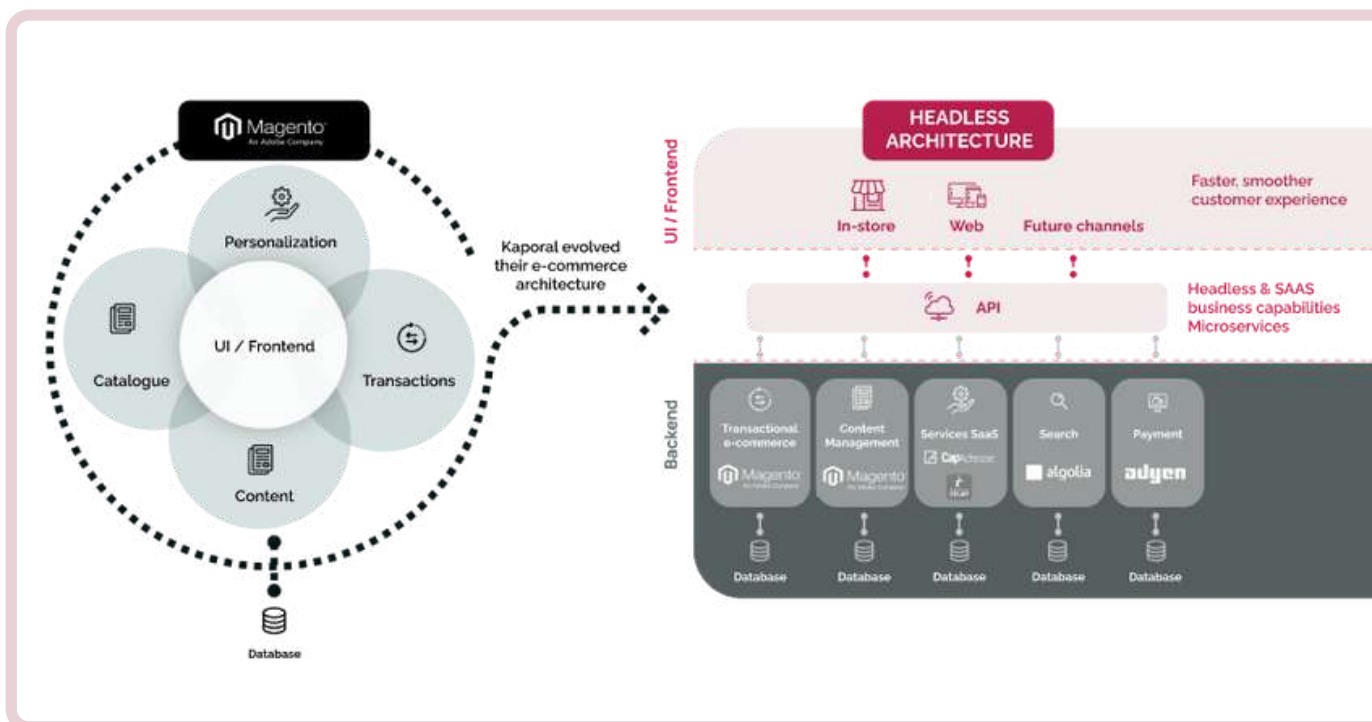
"Headless architecture will become the market's standard in the future."

– Nicolas Ciccione, E-Commerce director, Kaporal

RESULTS

The figures speak for themselves. Using headless technology divides the cost of migration by 5, the time to market by 4, while optimizing the customer experience on all media including mobile.
For the KPIs monitored, the positive impact was immediate with the launch of the new version of the Kaporal online store under Front-Commerce. And, with 9 months hindsight, on a like-for-like basis, Kaporal now has solid comparative figures:
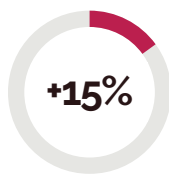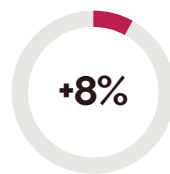
Improved business results

-60%
Bounce rate

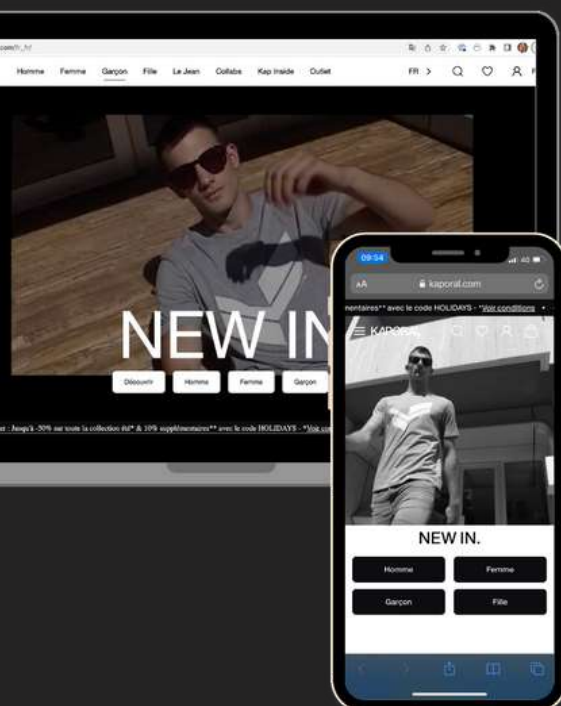**+40%**
Page views

+15%
Desktop conversion

+8%
Mobile conversion

"Being able to address each user personally with an exceptionally performant experience where he or she is, that is to say on his device is exciting."

– Nicolas Ciccione
E-Commerce Director, Kaporal

Front-Commerce has become a foundation of our e-commerce platform allowing it to evolve gradually while controlling our costs. It's extremely performant and being able to work on the one part of the experience that needs attention is ideal. Flexibility is changing how each brand does e-commerce. The freedom of structural choices that are invisible for the customer, but have a big impact for the business, allow companies with bigger teams and more rigid processes to move step-by-step on the important stuff and take the time to make decisions."

– Nicolas Ciccione, Kaporal

THE BIT WHERE WE TOOT OUR OWN HORN

Front-Commerce is the <u>only</u> digital storefront that improves the customer, merchant & developer experience, at the same time.

An ultra-fast front-end based on PWA & MACH standards, we help brands evolve their current e-commerce platform to a headless commerce approach by integrating the back-end of their choice with Front-Commerce's best of breed technical stack based on React, NodeJS & GraphQL.

Front-Commerce does the decoupling of the frontend and backend for its clients to provide a state of the art front-end experience and a headless commerce architecture. Our solution is compatible with most backends, allowing us to integrate easily into your systems. You can stay in touch with your customers and we keep all technical considerations up to date.

Get the fact sheet

Contact Front-Commerce
contact@front-commerce.com

click here!

Some of the brands powered by Front-Commerce

JEROME DREYFUSS ∴ DEVIALET CENTRAKOR KAPORAL

autobernard.com lulli — SUR LA TOILE — FABRIQUE DE STYLES BONNE GUEULE

THUASNE eden botanicals ROBERTET GROUPE collégien Depuis 1947 CHAÎNE THERMALE DU SOLEIL PetDistrib