



orto

# The essential guide to headless commerce

# Welcome

Headless commerce is still very much in its infancy. With plenty of industry excitement and platform growth to look forward to, now is the time to explore whether your business would benefit from a headless commerce structure.

This essential mini-guide will walk you through headless commerce from top-to-bottom so you can make an informed decision.

We'll be answering all the tough questions, including:

- What does headless commerce mean?
- How exactly does it work?
- How do I tell the difference between headless and traditional commerce?
- What can headless commerce do for my business?
- How quickly can I go headless?
- Will a headless commerce setup help my company stand out?
- How has a headless structure worked for other brands?
- Is it time for my business to go headless?

Plus, if you need a refresher on headless commerce acronyms and terms, our quick cheat sheet will help you along the way.

**Ready, set, grow.**

# About Ortto

Ortto is the unified customer journey solution for online businesses.

We're the beating heart of your online business, working intelligently in the background to help you grow. We understand the importance of unifying data to gain a single view of your customer, building personalized experiences across the customer journey, and the ability to track the metrics that matter most — like revenue attribution and engagement.

We brought the customer data platform, marketing automation, and sophisticated reporting and analytics together in one, powerful platform to help every ecommerce business achieve their goals.

Track customer actions and leverage them for growth, improve your conversion rates and predict customer behavior with Ortto AI, and automate repetitive tasks to free up your time for bigger picture tasks.

At Ortto, we believe our power is in the connections we forge. So we've built a platform that allows you to connect with your customers with meaning and intention.

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Headless commerce cheat sheet

# Chapter 01:

## What is headless commerce?

With the forecast of the ecommerce market growing to \$11 trillion by 2025, companies need more agile solutions in order to meet their customers' expectations. It's time for marketers to get creative and provide streamlined omnichannel experiences to not only convert customers but retain the relationships too.

*Cue in headless commerce.*

Becoming headless may sound like the stuff of horror movies, but it's not a scary endeavor. In the realm of commerce, it refers to the decoupling of the front-end of your online store from the back-end.

Simplified even further, the customer-facing side of your application and the behind-the-scenes mechanics are now working independently of each other. They do, however, still 'talk' to each other through the use of Application Programmer Interfaces (APIs).

The result? A faster, more agile, and consistent shopping experience for your customers. The backend is still able to perform all of its crucial functionality, but without being tied down to the delivery of the front-end.

Brands with a content-led or experience-led strategy, for example, direct-to-consumer brands, are more suited to the headless commerce structure, as they are given the freedom to create remarkable shopping experiences without the constraints of design or development.

"Headless generates sites the way the internet used to be built when we were accessing it through dial-up modems. Now with so much bandwidth through broadband connections, headless sites load virtually instantly making the internet a more efficient beast."

**-Nigel Poole,**  
Founder and Director of Matter Design

# Chapter 02:

## How does headless commerce work?

As mentioned, while the front-end and back-end are working independently, the most valuable players are the APIs that allow the two to speak to each other, essentially sending information back and forth between them.

Typically speaking, a content management system (CMS) is used on the back-end for customer-facing content. Implementing a headless storefront will allow you to leverage numerous back-end systems based on your company's needs.

Some examples of these include:

- Content management system (CMS)
- Customer relationship management (CRM)
- Digital experience platform (DXP)
- Product information management (PIM)
- Enterprise resource planning (ERP)
- Inventory management system (IMS)
- Order management system (OMS)

The back-end systems mentioned above do not need to be SaaS platforms, however, they often are. These SaaS tools create another touchpoint for your customer. Once they have interacted with one of these touchpoints, an API sends that information through to your back-end. Your customer does not see any of this happen, they are just enjoying a seamless shopping experience.

### **A simple API example:**

When a customer clicks on the 'Add to Cart' button on their desktop, the front-end triggers an API to be sent to the back-end to add the item to the cart. The back-end then sends an API to the front-end showing the status of the cart to the customer.

# Chapter 03:

## Headless vs traditional commerce

The move to new ecommerce models, like headless commerce, comes from the need for flexibility and scalability in today's market. Customers expect unique, creative experiences on the front-end of your application.

Historically speaking, the monolithic commerce structure is the most common model used with traditional commerce. This is where the presentation layer is served from the same system as the backend processing.

This monolithic architecture used as an ecommerce solution means that the CMS, cart, checkout, site layout, and design are all interdependent, so if a change needs to be made for one, then it needs to be to the other. These updates are not automatic, so it slows down the process of getting updates live.

Now that you understand the traditional commerce model, the differentiation between the two — headless and traditional — can be broken down into two main categories:

### Constraints in front-end development

In traditional commerce, front-end developers find more restrictions when it comes to implementing changes. More time has to be spent editing the code, database, and the platform itself. They can also find limitations with what can and cannot be edited.

With headless commerce, front-end developers have more freedom when it comes to making changes. The APIs automatically update the other sections within the platform, so developers do not need to worry about modifying databases in the back-end. It's all automated.

While there is a lot of freedom here, the initial development will require more time. Developers have a choice to use a more customizable framework, or Front-end as a Service (FaaS) application or take it to the next level and build everything from scratch, from feature pages to landing pages.

## **Customization and flexibility**

In traditional commerce your capabilities to personalize the experience for both your brand and your customers are reduced by comparison. This sort of commerce platform will come with predefined experiences with little wriggle room, as the front-end and back-end are tightly coupled together with coding and infrastructure.

For headless commerce, you can have much more control over the experience of your users and the look and feel of your commerce platform.

As both front-end and back-end are already working separately, there are plenty of opportunities on offer to customize. For example, say you wanted to create a custom checkout flow or looking to add a new field to your custom account, this can all be achieved with your front-end developer and a headless commerce setup.



# Chapter 04:

## Benefits of headless commerce

Headless commerce could be the innovation your business is looking for. Please bear in mind that pivoting to a headless set-up is not a finger-snapping, bam-and-it's-done process.

But once you commit to it, your company will see that it's worth the effort not just internally, but for the remarkable customer experience you can deliver. Here, we highlight 7 benefits of becoming headless.

- 01** More choice
- 02** Remain competitive
- 03** Customizable storefront
- 04** Simple scalability
- 05** Reduced internal wait times
- 06** Increase in conversion, decrease in acquisition costs
- 07** Improved page load times

# 01 More choice

Who doesn't love more choice?

Especially when it comes to your website, whether you're building it from scratch or changing it up to adapt to external influences or trends.

According to Simon Pallister, Ortto's Global Director of Solutions Engineering, "Headless commerce allows you to implement a front-end of your choice, working independently from your ecommerce platform. You are able to choose from a variety of options including custom-built applications, pre-built front-ends, or front-end service providers (such as FaaS providers like Frontastic or Shogun)."

"Not only are you able to choose the front-end best suited to your business needs and resources, but it can also bring other benefits such as more agility and flexibility to operate outside the restrictions enforced by the ecommerce platform."

"There is also more choice when looking to integrate specialist technology. If your company has specific tech needs, then headless commerce is a move in the right direction. It is much easier to integrate the best-of-breed specialist technology, such as headless CMSs, Digital Experience Platforms (DXPs), search & merchandising tools, and personalization into your headless architecture. "

By choosing a headless setup you are able to create the best front-end and integration ensemble tailored to your company and website needs.

## What you gain:

- Brand recognition
- Use best-of-breed tech
- Higher conversion rates and CLV

## 02 Remain competitive

With the freedom, flexibility and speed in which updates can be made in your headless commerce platform, you are able to remain competitive. You can keep on top of the constant customer behavior changes, technology upgrades or acquisition trends.

### What you gain:

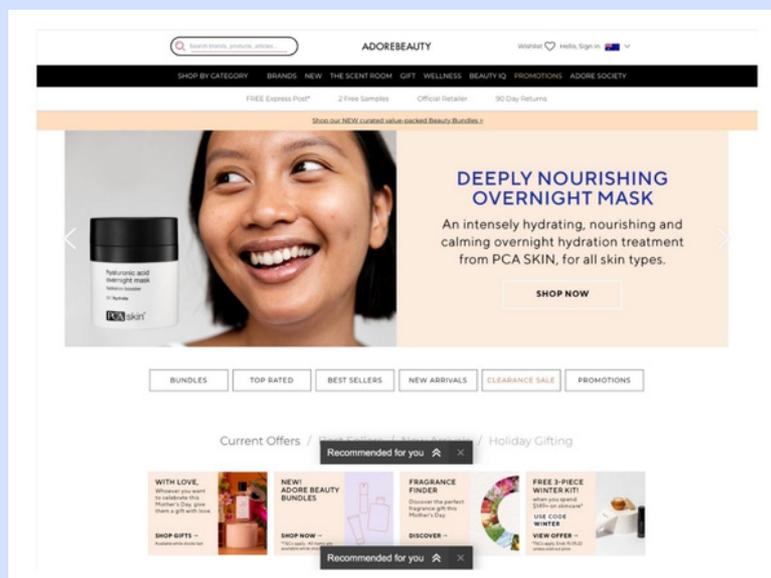
- Agility & speed with updates
- Keep top of game
- Higher conversion rates and CLV

Australian ecommerce beauty retailer, Adore Beauty is a great example, “they were really early adopters of headless technology, long before it was cool.

They originally used Magento and a custom front-end before migrating to BigCommerce, but they also leveraged a number of technologies in a way we now know as composable commerce,” shares Pallister.

Adore Beauty’s move into a headless structure came out of a strategic goal to improve site speed. Within half a year, they were able to reduce the speed of their site down to 2.4 seconds. Once that goal was achieved their next step was going for headless carts.

Adore Beauty’s speed and agility are factors in keeping the brand competitive, as they are able to pivot and adapt as the ecommerce industry changes.



## 03 Customizable storefront

Is your website sticking out from the crowd or, more importantly, from your competitors? No one has time for cookie-cutter website pages anymore. Customers are all about a well-branded, original website.

With headless commerce your company can use the technologies it likes to create and build custom experiences designed specifically for your shoppers.

You're not confined to the rules of a CMS, so you're free to create and test the customer experience you envisioned.

Providing your customers with a consistent brand experience builds confidence and loyalty for your company.

### What you gain:

- Brand recognition
- Higher conversion rates and CLV

## 04 Simple scalability

If you're expecting a high volume of traffic to come through your site, or future forecasting when website visitation will exponentially grow then embracing a structure like headless commerce will help.

"Scalability and performance can be improved by leveraging CDN-based static sites that otherwise would not be available when using a traditional all-in-one solution," Pallister shared.

"Headless in itself does not improve scalability or performance, however it does give you the flexibility to control them outside any restrictions enforced by the choice of ecommerce platform."

### What you gain:

- Quicker time to value
- Efficiency

## 05 Reduced internal wait times

Expedite changes immediately. The classic case of projects hitting a bottleneck, or upgrades being held back due to other team priorities will be a thing of the past.

Having a headless platform allows any front-end or customer-facing work to be done independently, without the need to wait on work to be done at the back-end. And vice versa.

Teams can keep moving on their tasks without the need to wait on the other to finish first.

### What you gain:

- Freedom to push seasonal or flash promotions
- Efficiency

## 06 Increase in conversion, decrease in acquisition costs

It's no secret that across the board, the Customer Acquisition Cost (CAC) is rising due to the increase in paid advertising costs and a highly-competitive market making it harder and harder to win over new customers. What does this mean for you? It's time to work smart, not hard when it comes to acquiring new customers.

By implementing a content-led or experience-led strategy, your headless commerce application makes it much easier to pull organic traffic in rather than relying on paid.

This use of dynamic customer experiences will also assist in increasing your conversion rate and winning customer loyalty.

### What you gain:

- Increase conversion rate
- Better customer loyalty

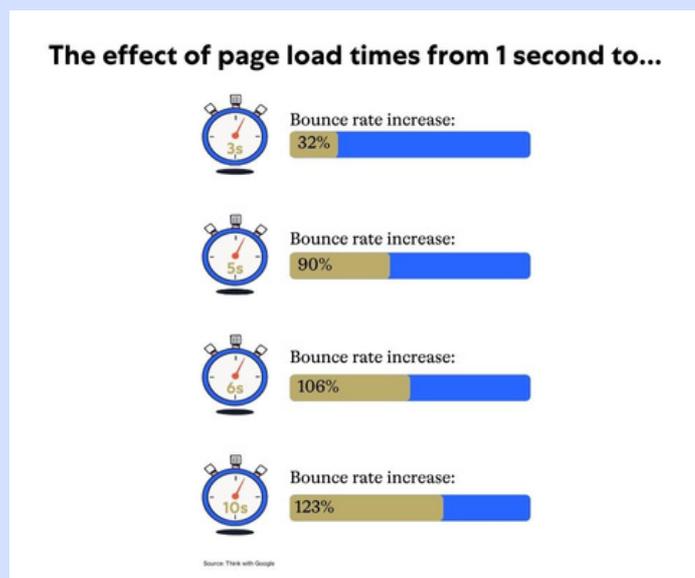
# 07 Improved page load times

This is one of the more popular advantages of a headless commerce platform, as your page load time and customer drop-off rate are directly related. According to a study by Google, as your page load moves from one second to three seconds, the chances of your customer leaving increases by 32%.

## What you gain:

- Higher conversion rates and LTV

Your page load time should sit around 2 seconds, to ensure your customers' attention remains on your page.



When building or customizing the front-end of a headless structure, many companies will use a combination of a single page application (SPA), a CMS like Jamstack, and a static site generation. The result of this build helps achieve the goal of a faster and improved page load time, so your customers don't make a quick exit.

While the technologies integrated with headless commerce are the ones more likely to improve page load times, it's the ease of leveraging these technologies that you will benefit from.

# Chapter 05:

## Is it time for your business to go headless?

As you can see, there are plenty of benefits to going headless, but that doesn't mean that your business structure is necessarily suited. If you are kicking goals with your traditional commerce architecture, then it may not be worth the time and resources required to make the switch. You'll have to evaluate your business objectives and whether headless commerce can help you achieve this.

Below we go through a few use cases where implementing a headless commerce can solve certain business barriers.

### Omnichannel capabilities

One of the biggest draw cards to turning to headless commerce, is the ability to create the seamless omnichannel experience your customers deserve. Many retailers face the issue of siloed systems forming between platforms with their current ecommerce solutions, impeding their ability to create the best omnichannel experience for their customers.

By moving on to a headless setup, content isn't inhibited by the form of content. Organizations are able to reuse one piece of content over a variety of other systems, such as a digital asset management (DAM) platform or a product information management (PIM). In other words, data can exist in multiple places, but without it being copied or duplicated. This allows organizations to track, measure, and be able to refine their customer experience where needed.

The headless architecture provides you with the tools to integrate all your channels, plus deliver content seamlessly to each and every one. The best bit? It's all done within the same application.



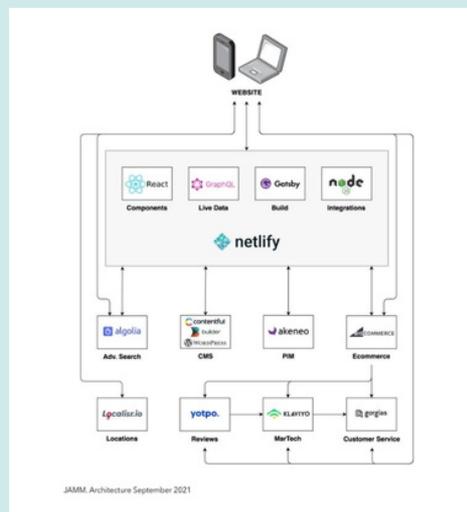
# Chapter 06:

## Headless back-end integrations

The thought of building your own headless commerce application can seem rather daunting, however, there are plenty of consultants and agencies available to take you through this process step by step.

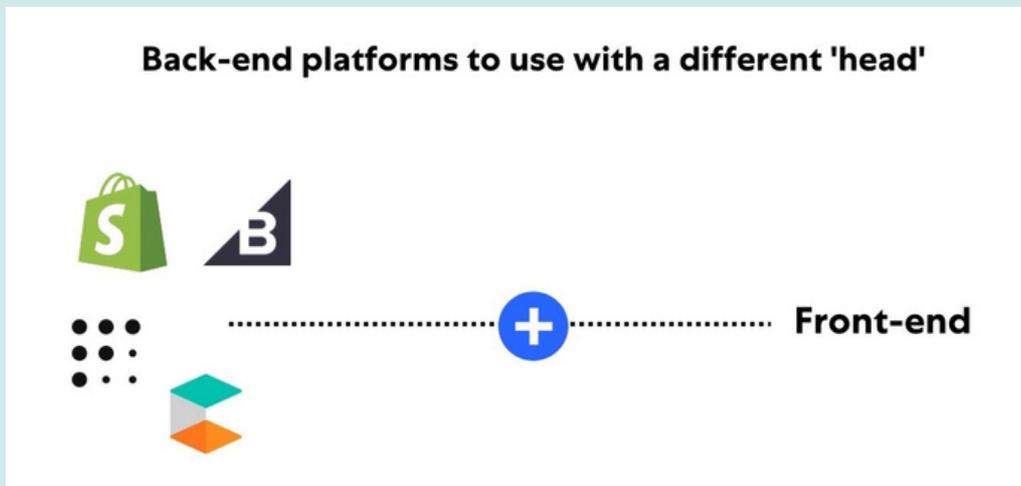
In fact, one of Ortto's Partners, [Matter Design](#), launched its own headless ecommerce framework in 2021. Aptly named [JAMM](#) - as it is built with a JAM (Javascript, APIs and Markup) stack frontend plus M (standing for Matter ecommerce know-how). JAMM is built with Gatsby, ReactJs and NodeJS and hooks into key ecommerce applications.

This architecture built by Matter Design is used as a base to build upon in order to achieve the specific solutions of their client needs.



If an agency isn't for you, yet you still don't have the resources to build your headless platform from scratch, there are also plenty of popular platforms and frameworks available to make this process easier.

For your back-end there is an array of major ecommerce platforms to choose from - Shopify, BigCommerce, Commerce Tools, Fabric - all of which can be integrated into your new headless setup.



JavaScript frameworks like Gatsby, Angular, or React can all be used to build your choice of the presentation layer from custom.

The switch to headless does not need to be a chaotic or costly experience.

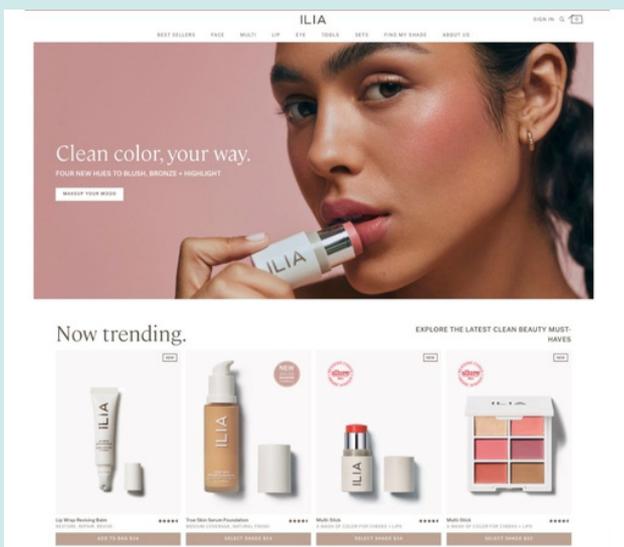


# Chapter 07:

## Best in practice examples of headless commerce

Now you know the ins and outs of headless commerce, let's take some time to look at the well-known brands who have made the switch or simply started headless and never looked back.

### Ilia



*ILIA found their website was feeling clunky and slow when they started incorporating sophisticated tools into their website.*

'Compare shades' and 'find my shade' were added as customer experience functionality, however, they had detrimental effects on their page.

Using the headless solution on Shopify plus, they were able to transform their website into a fast and seamless experience, while also allowing the developers to experiment with new formats of content.

## K2 Sports



*Feeling limited with what they could achieve on their current website, K2 Sports needed a refresh.*

With several factors proving to be a barrier to K2 Sports' plans for international expansion — such as the ecommerce store feeling dated and massive development and maintenance costs — a cost-effective, customer-friendly solution was needed.

The move to a headless architecture that could deliver the creative shopping experience they envisioned, along with improving their API performance.

For the back-end, K2 sports use BigCommerce, and on the front-end, K2 Sports used ContentStack to develop and build content-rich customer experiences designed to resonate with their desired segments and potential customers.

## Lancôme



*Lancôme simply saw the value of implementing a headless commerce structure, recognizing the potential and the customer experience they could deliver.*

With the foresight to see the growth in mobile commerce and the increased customer engagement on the device, the aim was to enhance the user experience on all their channels. The brand saw an increase in their conversion rate, with their customers able to now make purchases easier, on the go.

# Chapter 08:

## Final word

With over 25 years experience in ecommerce and ecomm technologies, Simon Pallister has seen it all.

When asked what he sees in his crystal ball, he shared, “The future will bring a lot of new entrants and niche capabilities not yet thought of but also a lot of simplification and accessibility. Headless solutions will be far more accessible to smaller ecommerce merchants as solutions become far more turnkey and the choices of front-end and back-end combinations via integrations increase over time and with demand.”

Feeling inspired to make the move to a headless commerce structure? If you decide to do so, you’ll be turning your ecommerce business into a competitive, agile, high converting, on-brand experience for your customers.





# Your headless commerce cheat sheet

## Application Programmer Interfaces (API)

Is a connection between software systems allowing them to communicate with each other.

## Content Delivery Network (CDN)

A network of servers globally distributed designed to speed up the delivery of web content by reducing the physical distance between server and user.

## Content Management System (CMS)

An application used to create, manage, update and publish content usually on a website. It can all be done without the need for any specialized technical knowledge.

## Customer Relationship Management (CRM)

Is a software system used for managing an organization's current and potential customer relationships and interactions.

## Digital Asset Management (DAM)

It's a centralized system to organize, access and distribute digital media assets.

## Digital experience platform (DXP)

The goal for a DXP is to deliver a better digital experience for both customers and employees. This is done through specific technology that supports the formation, management, optimization and delivery of digital experiences.

## Enterprise resource planning (ERP)

Software used by organizations to manage and integrate core business activities, for example procurement, accounting, supply chain operations.

## Front-end as a Service (FaaS)

A service that's in charge of displaying the correct content in an optimal fashion, depending on the target device and system. For example desktop, mobile, smart watch.

## Headless Commerce

Refers to the decoupling of the front-end of your online store from the back-end. Simplified even further, the customer facing side of your application and the behind the scenes mechanics are now working independently. They do, however, still 'talk' to each other through the use of Application Programmer Interfaces (API's).

## Inventory management system (IMS)

The process of tracking your goods throughout your entire supply chain, from purchasing to production to end sales.

## Product Information Management (PIM)

Is a central hub application used to collect, manage, and enrich product information that's needed to market and sell products through distribution channels.

## Progressive Web Application (PWA)

This is a web application using features and progressive enhancements to provide users with an experience comparable to native apps.

## Single Page Application (SPA)

This is an application that works inside your browsers without requiring page reloading during use, the best example of this is Gmail or Google Maps.

## Static site generators

Takes content and applies it to a layout or template and generates purely static HTML files. This removes any need for server side code, databases, and other resource intensive processes needed to generate a dynamic site.

## Traditional 'Monolithic' Structure

This is where the presentation layer is served from the same system as the backend processing. Historically speaking, the monolithic commerce structure is the most common model used with traditional commerce.



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