



Headless Commerce Guide



Why Your Business Needs To Go Headless – Now!

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Chapter 01

The E-commerce Landscape

The pandemic transformed the world in a way that consumers and businesses could have never anticipated. As Covid-19 swept across major cities, restaurant employees, brick-and-mortar store owners, and a host of business stakeholders in several industries were forced to close up shop and count their losses. Consumers were pushed to adjust to this change, and in the process, new buying patterns and habits emerged.

When it comes to digital consumer behavior, Millennials (Generation Y) and Centennials (Generation Z) have long been associated with online shopping. However, the case is untrue for many baby boomers and some individuals who belong to Generation X. In fact, **recent studies¹ show that 40% of Gen Z and millennials shop for products on social media**; so while migrating to online channels to make purchases wouldn't have been a challenge for this group, it certainly would have been for some of their older and less tech-savvy counterparts. The rapid growth of e-commerce is proof that more individuals with spending power have become very heavily reliant on digital channels and this isn't expected to change anytime soon. **Data² from the U.S Department of Commerce indicates that the estimate of U.S retail e-commerce sales for the first quarter of 2021 was \$215.0 billion, an increase of 7.7% from the fourth quarter of 2020.**

Although the astounding rise of e-commerce was propelled by the pandemic, many business leaders believe that the sustenance of this growth will primarily be dependent on technological advancements such as increased digital penetration, improved connectivity (5G), and optimization of new channels. This is where the idea of headless commerce comes into play.

As the e-commerce sector continues to grow, a lot more buzzwords will be mentioned. Some might be relevant for your business while others might not. The way we see it, headless commerce is not just a buzzword, it is a path businesses must take in order to reach customers exactly where they are.



Chapter 02

What is Headless Commerce?

The Traditional E-commerce Model

If you've ever set up an online store for your business, then you're probably very familiar with the traditional e-commerce model. As simple as traditional e-commerce platforms appear to be at first, they often pose challenges further down the line when a business's e-commerce strategy develops and customers begin to demand more store features and functionalities.

The problem with traditional e-commerce platforms is that they often come with pre-defined experiences for both the customer and the website administrator or developer. While this might work for small businesses looking for an out-of-the-box solution, this can pose countless difficulties for agile or complex businesses that need to constantly modify their store-front to meet the endless needs of store visitors.

Traditional e-commerce platforms are often monolithic in nature. What this means is that typically, the front-end (customer-facing layer or storefront) is tightly coupled with the back-end system (where all the functionalities are controlled), and that features cannot be individually customized or changed, since the whole system is working like one gigantic block.

In the early stages of e-commerce, businesses relied on these monolithic architectures as they brought their stores to life but the lack of flexibility with such systems often caused customization complexities and slower iteration cycles. If developers wanted to make improvements to the front-end, they would have to alter the back-end as well. The risk of ruining the entire system confined developers to these all-in-one structures.

For businesses that require basic online stores with less frequent product updates and little to no customization, the traditional e-commerce model works just fine. However, **in today's rapidly changing, consumer-driven world, a headless commerce approach is relevant for businesses that desire to not only scale but scale speedily.**

What Headless Commerce Means

Unlike the traditional e-commerce model, headless commerce involves separating the front-end and back-end of an e-commerce application.

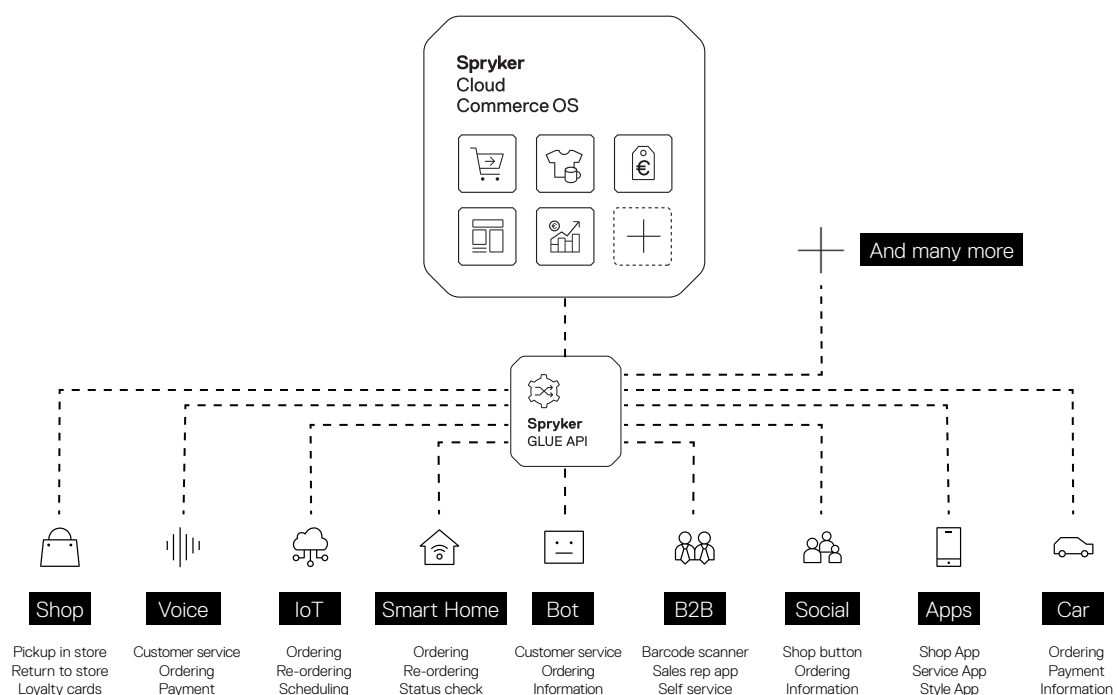
With headless commerce, the customer-facing layer or storefront is decoupled from the back-end (where the product information, order management, and a few other functionalities are set up). Headless commerce relies on the use of an application programming interface (API) to connect multiple platforms on the front-end thereby making it easier for developers to create personalized experiences without having to make alterations on the back-end system.



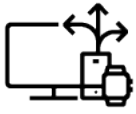
A headless e-commerce system works by passing requests between the presentation and application layers through web services or application programming interface (API) calls.

As we mentioned above, the back-end of a commerce platform houses product information, pricing, payments, and all the other management functionalities. These services are arranged in packages known as features or Packaged Business Capabilities (PBCs).

By decoupling the back-end functionalities from the front-end, it is easier to release new features that customers can access through multiple channels or storefronts such as mobile, social, wearables, voice assistants, and other IoT devices.



Why it is relevant



Flexibility: Headless commerce gives you the flexibility to customize your storefront and develop as many front-end interfaces as you would like. This is good news for developers as they are no longer limited by pre-existing front-end platforms; they can build new customer-facing platforms from scratch taking into consideration the experience they would like customers to have. **In other words, flexibility gives room for a richer user experience.** Furthermore, developers would no longer be frightened by unintended changes to back-end systems, as they attempt to modify the presentation layer. By adopting a headless approach, you can make updates safely knowing that the two entities are independent of each other.



Customization & Personalization: Research shows that 90% of U.S consumers find personalized marketing very or somewhat appealing. Consumers want to be reached on the channels they utilize the most – whether it is social media or an IoT device, they would rather place items in their carts or approve transactions at their convenience. Headless commerce greatly supports the idea of personalization and your business has the potential to create custom experiences and refine them as time progresses. We will dive deeper into how you can deliver more personalized experiences when we share headless use cases and applications.



Time to Market: Headless commerce guarantees faster time to market. **With Spryker's GLUE API, content and product information can easily be pushed to any platform.** Thus, the time to get a new product to the market becomes significantly reduced. In some cases, a shorter

time to market could also mean fewer tests and reduced costs for the business.



Omnichannel experience: Multiple touchpoints allow for a more seamless customer journey. The ability to reach customers on various channels without having to make major architectural changes is a huge benefit of headless commerce. Your customers can easily migrate from one platform to the next while still enjoying similar experiences. **Deploying an omnichannel strategy by going headless can also keep you top-of-mind for your desired audience.** Knowing that accessing your platform doesn't interfere with their ordinary routine can help drive purchases. These days, customers are all about convenience and a headless approach can enable a business to better respond to this need.



Agility and fast-tracked Innovation: In today's business environment, agile methodologies or processes are required in order to scale. Customers are constantly changing and businesses need to evolve with them. Headless Commerce makes it possible to not only adopt new technologies such as IoT devices; it also allows for the integration of new systems for example payment platforms, Customer Relationship Management tools, and Content Management Systems. **Being nimble is all about meeting new customer demands as they come.** With headless commerce, agile marketing becomes much easier as well; new campaigns or content can be released and insights from customers can be gathered at a much quicker pace. These insights will then be used to optimize the campaigns in order to deliver more value to customers and secure a greater ROI.



Chapter 03

Market Overview

What is the Current State of Headless Commerce?

Voice shopping is projected³ to hit 40 billion by 2022 in the U.S and the U.K. Furthermore, the worldwide number of IoT-connected devices is projected to increase to 43 billion by 2023. A recent report⁴ also indicates that close to one-fifth of US consumers have shopped online either by using the “buy” button on social media (18%) or by clicking a shoppable post or story on a social network (16%). This is up from 13% and 12% of shoppers, respectively, who said the same in 2019. All of this data goes to show how much the world is paying attention to shopping for goods or services through less conventional means.

Social commerce, voice commerce and the usage of other IoT devices to purchase goods and services point to the relevance of headless commerce. New technologies are becoming a huge part of the everyday life of consumers; ignoring consumer trends in your efforts to drive sales could greatly set your business back.

Across various industries, companies are starting to recognize the opportunities that headless commerce presents. Let’s take a look at how headless commerce is impacting B2C, D2C, and B2B companies; we will also consider a few changes that we expect to see in the near future.

The Impact of Headless Commerce on B2C/D2C Companies

Retail is one industry that has been at the forefront of headless commerce applications. Fashion and food retailers in particular (including marketplace operators) understand how crucial it is to be agile when delivering experiences to customers. For example, in the world of fashion retail, trends are short-lived and consumers are always looking for the next best thing. **To capture and retain customers, B2C brands need to constantly create new and engaging experiences.**

One of the biggest impacts headless commerce will have on the B2C industry is its ability to support highly personalized experiences. Consumers crave content, especially content that speaks to them personally. According to a study done by Accenture⁵, a whopping 91% of consumers say that they are more likely to shop with brands that provide offers and recommendations that are relevant to them.

Going headless can aid businesses in tailoring specific messages to customers. With a powerful Spryker-enabled back-end system and the GLUE API, you can give shoppers more personalized suggestions based on the searches and purchases they make on your platform using multiple devices. Delivering personalized content provides companies with more opportunities to upsell.

A lot of B2C and D2C companies struggle with capturing audience attention and standing out from the competition. Headless commerce's flexibility makes it easier for brands to get right in front of their customers. As new technologies emerge, businesses can oscillate between several digital storefronts; they can go wherever their consumers choose to go without ever compromising their back-end system. **Being flexible enough to move back and forth between channels will help you stay competitive in a very crowded FMCG or CPG market.** Furthermore, it could significantly impact brand awareness. The more digital channels your business can be found on, the more visibility you would have.

As we mentioned earlier, headless commerce supports the seamless integration of third-party systems. This is a key benefit for B2C and D2C businesses especially when it comes to payment gateway integrations. Most shoppers want to feel comfortable as they utilize payment features on your website. By presenting them with the best-of-breed payment options, you can guarantee increased customer trust and also heighten the chances of repeat purchases.

For D2C brands who do not utilize middlemen, the user experience on their platforms will be largely responsible for how well they succeed. The right integrations and a reliable e-commerce system such as the one Spryker provides will make the deployment of features across multiple touchpoints more feasible. D2C companies rely on omnichannel strategies to achieve their sales objectives; a headless approach can enable them to achieve their desired results.





The Impact of Headless Commerce on B2B companies

The shift in buyer patterns at the start of the pandemic had a massive impact on the B2B industry. A lot of businesses who simply didn't see the need for an e-commerce platform or solution had a rude awakening as person-to-person contact, logistics, and supply chain activities came to halt. **A digital presence is no longer a nice-to-have but in fact a necessity. As B2B buyers evolve, companies must respond to new consumer and commerce trends.**

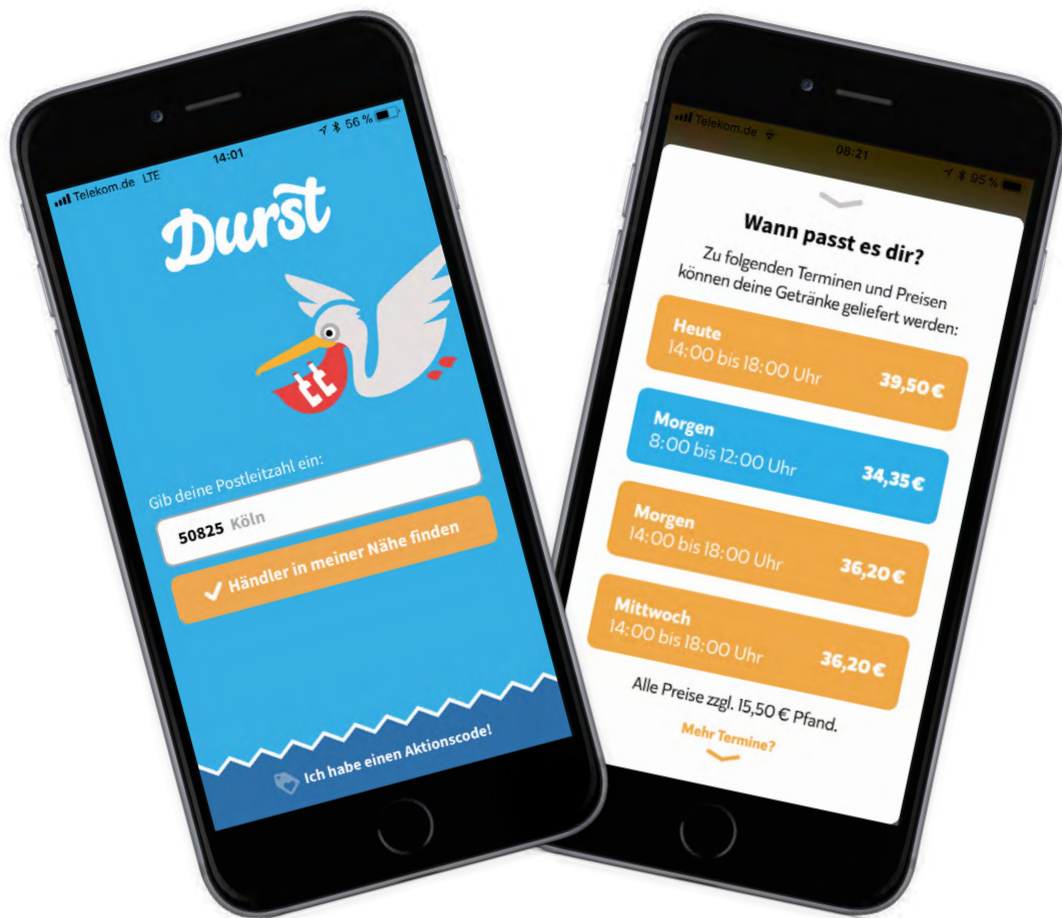
Headless commerce reinforces how important it is for B2B businesses to build a digital presence; building an e-commerce store is the starting point but branching out to other touchpoints could help drive sales for your business and improve customer convenience.

B2B buyers often make purchases in large volumes and sometimes the order approval process can become overwhelming for the distributor. This is one area where we can see headless commerce making a difference. **Aside from giving customers an opportunity to purchase products on their platform of choice, a headless approach can also work in reverse by helping businesses approve orders using smart devices such as wearables or voice assistants.** For instance, warehouse managers could utilize a smartwatch connected to a Spryker-enabled back-end to approve orders on the go. Similarly, order management can also be done on any device. Unlike with traditional e-commerce systems where employees only had the option of going through orders on a desktop, these days, push notifications can be sent to smartphones and other devices and this greatly accelerates the order fulfillment process. More so, you will be viewed by your customers as a trusted supplier.

Durst

Platform Economy Meets Mobile App

Durst provides retailers with a reliable platform that holistically covers the whole process of delivering beverages, including logistics. Therefore, it is a combination of a marketplace with a multi-interface shop that is user-friendly towards its customers while convenient to maintain by the retailers.



When Durst started planning its product as a greenfield project, the startup knew exactly what it wanted from a commerce solution:

- be mobile-first, to serve as the basis for the customer-centered beverage delivery service
- be a combination of a marketplace and a multi-interface shop system to meet the expectations of both retailers and customers
- serve as the technical base for handling the entire process, including logistics, via a reliable platform

An off-the-shelf solution was not sufficient for these goals. They looked at other shop systems, but Spryker ultimately won them over with its tech-savvy approach, platform development capabilities, and scalable licensing model.

A Digitally-driven Solution to Quench the Customers' Thirst - and a Powerful Tool for Retailers

For many beverage manufacturers, setting up their own online distribution channel is a costly process, because the delivery of beverages follows a regional business model. Durst helps these companies via the merchant platform so they can easily make their products digitally available. The Durst App provides the end customers an additional order channel.

How did Durst Outperform the Beverage Store Around the Corner?

API-first - the new way of headless commerce

Is the online shop a thing of the past? Durst has realized that customers prefer to order beverages using their smartphones. Regular retailers can easily integrate products on the platform and offer them for sale via a link to the app.

The API-first concept means that there is no classic webshop with an inseparable front-end and back-end. Various selected front-ends and systems can be flexibly connected to the modular back-end via the API. This way, the transaction is not based on a mere shop solution, but is headless and can be loaded with a multitude of customer interfaces.

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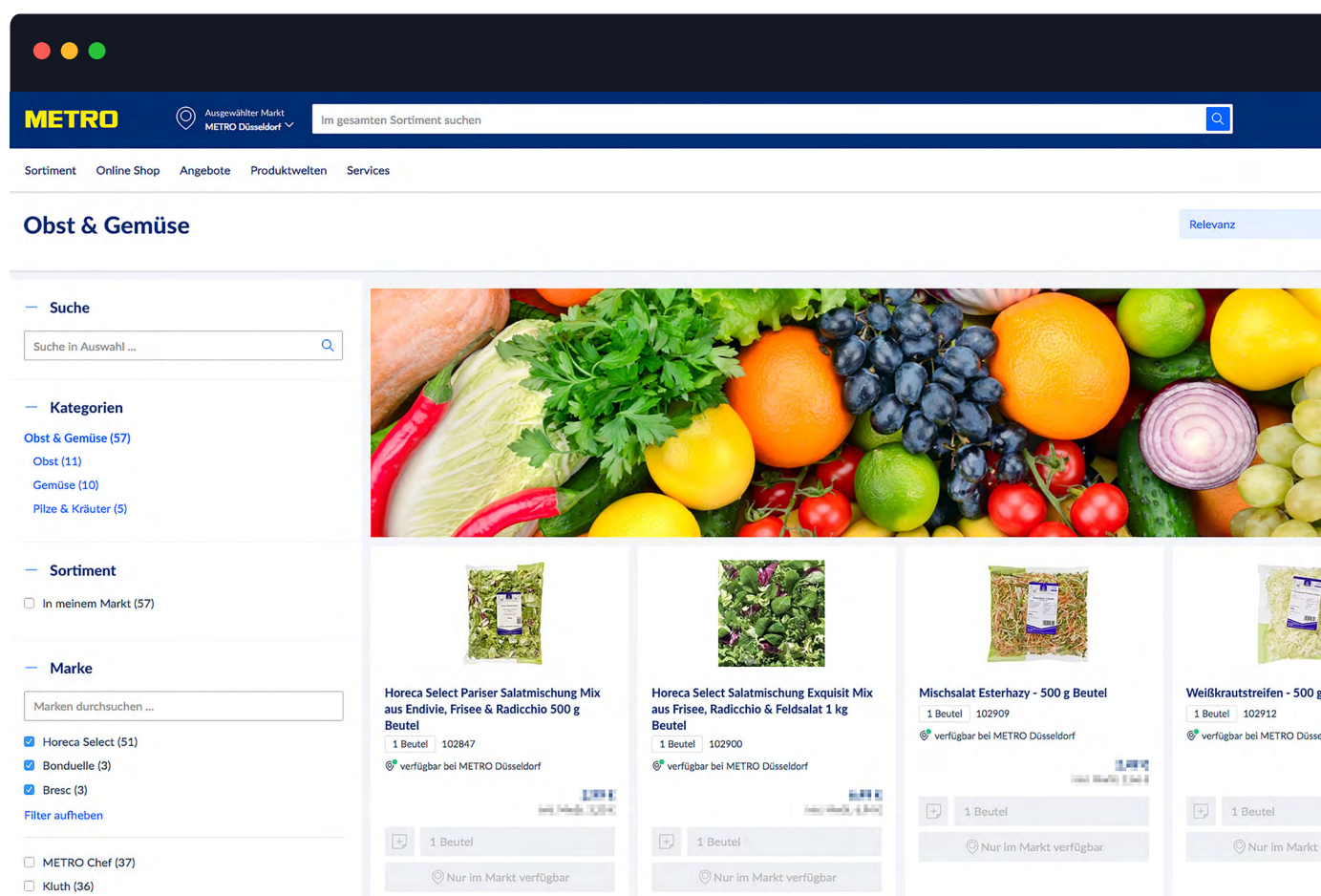
...Thanks to Spryker's flexible and modular architecture, we were able to implement the launch and further development using an agile MVP approach. We couldn't find any other provider that had the solid API-first approach with the combination of mobile app and merchant platform in this form, and we are excited to be able to now fully dedicate ourselves to Durst's growth.”

- Matthias Steinforth, Founder & Managing Director at Durst



Metro

How METRO Supports Small and Independent Retailers With a Customized Online Shop



METRO is a leading international specialist in the wholesale and food trading industry – a business sector in which IT is typically used as a support function.

At METRO, the use of omnichannel is already a significant part of the corporate strategy. The main focus of METRO NOM, the wholesaler's tech unit, is the digitization of B2B commerce. The overarching objective is to create the right technical conditions for digital transformation.

Customer-centricity for Everyone

METRO primarily serves the following three groups of customers: HoReCa-customers (hotels, restaurants & catering), the SCOs (small companies and offices), and traders (small, independent retailers for METRO mainly based in Eastern Europe).

In order to optimize customer-centricity and promote customer loyalty, digital services must adapt to each group of customers, their location, and individual needs. For example, one restaurant might not necessarily pay the same price for flour as another.



An App as a Navigator for the Customer

METRO AG focuses on the omnichannel approach in order to make customer purchases as fast and efficient as possible. This is where analog shopping merges with digital components. Using a currently piloted app, customers can be navigated through the very large stationary store to help them quickly find their desired products. The focus is clearly on comfort for the customer.

Internationalization Made Easy

As METRO is represented in numerous countries, many different customer requirements come into play. Thus, METRO utilizes the API-first approach.

METRO and Spryker teamed up to launch a second shop with a different set of functions that are rather aimed at small retailers or traders. The trader shop concept is based on a standardized back-end. The APIs enable shops to be accessed internationally on a 1:1 ratio and simultaneously allow for adaptations based on local needs. The “Advanced Services” offer a high degree of flexibility. Thus, the API-based back-end can easily be modified if a country’s needs change.

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We use the Spryker solution as a front-end tool and connect it to our back-end systems via our APIs. The motivation was to amplify our technology to scale faster and provide our customers with this diversified range of functions.”

- Timo Salzsieder, CIO/CSO at METRO AG and CEO at METRO NOM

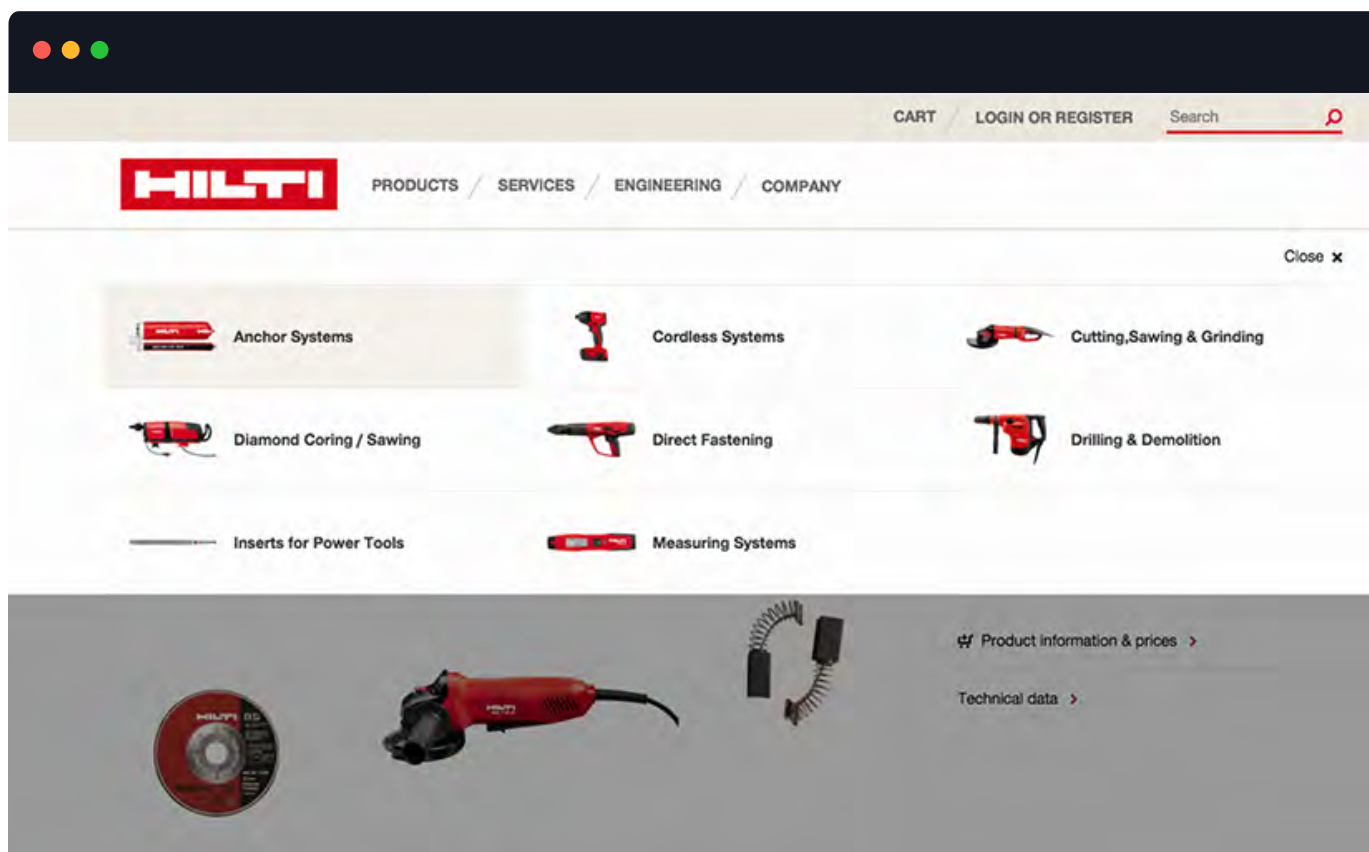
METRO Sets New Standards in the Food Wholesale Industry

Transforming an analog business model such as the wholesale industry into the digital world is not an easy task. METRO is combining an optimized customer centricity and a technology-oriented approach to support the digitization process. Particularly, regarding traders, METRO is boosting internationalization, using the right technology, and creating new possibilities for retailers.

Hilti

Hilti on Course for International Expansion

The multi-billion Euro Hilti Group develops, produces, and sells products for the construction industry. The product and service range is mainly for professionals and is therefore aimed at the B2B market. Hilti was on the mission to digitize its African indirect sales strategy with a dedicated commerce technology platform.



When Technology Holds you Back

Hilti's existing commerce technology was becoming a limiting factor due to increasing demand for more custom-built cases such as IoT, cloud hosting, and others. Their overall transition from a waterfall model to agile project management underlines their need for a technology that would not hold them back but rather support them with the flexibility and freedom that is being asked for. The pilot market for this first initiative was the African & Asian market - defined by the complexity of languages, currencies, and the existing indirect sales model within those markets.





MVP Approach in African and Asian Markets

With the Spryker Commerce OS, the introduction of e-commerce in selected new markets became a simple undertaking. Hilti decided to use the Spryker Commerce OS without back-end integration into ERPs, to ensure a fast and affordable solution. It was chosen due to its flexibility and scalability for the rollout of 8 partner shops in Africa & Asia offering multi-store capabilities, a variety of supported languages, customer group segmentation, content management integrations, and much more. By adopting a headless approach with Spryker's solution, Hilti was able to present the MVP within the defined time.

Setting the Foundation for Complex Buyer Journeys

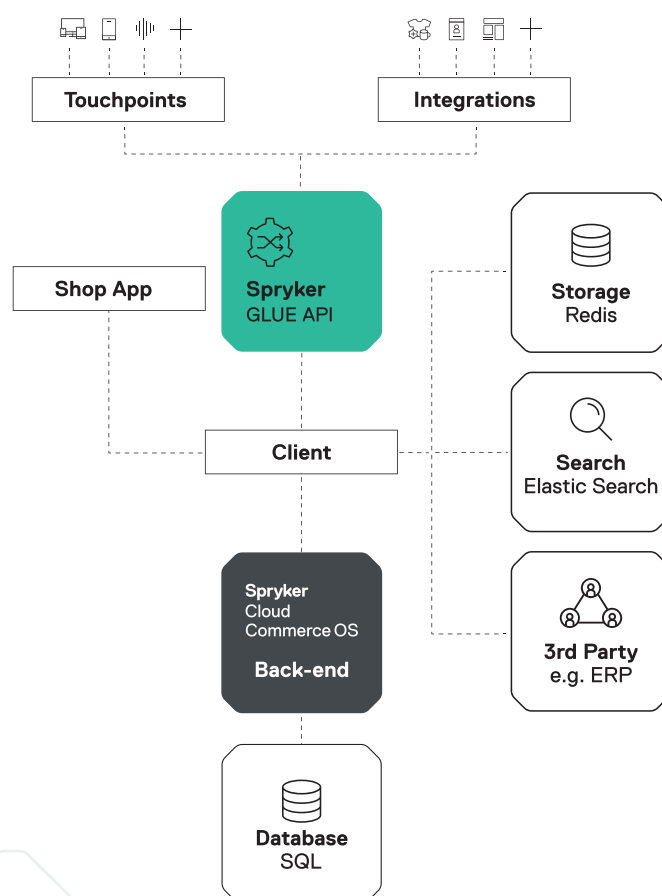
As a premium partner for construction professionals, Hilti needs to create outstanding customer experiences. The product range and the services offered are therefore adapted to the respective market requirements. This also applies to the online shops which Hilti has adapted to country-specific requirements. Thanks to the Spryker Commerce OS, Hilti can launch new, non-backend-integrated online shops in various countries within a short period. Hilti has successfully set the foundation for addressing the complexity of their buyer's journey; while combining both offline and online touchpoints. Furthermore, headless has evolved into Hilti's preferred technology requirement, as several IoT devices are being implemented to support project teams worldwide.



Chapter 04

Going Headless with Spryker

To fully go headless, you have to consider an API-led approach. APIs (Application Programming Interfaces) act as an intermediary to transfer information between multiple applications. Integrations between systems completely different in nature, data structure, purpose, or programming language are possible through APIs. **Spryker's GLUE API enables connection to multiple touchpoints and aids in seamlessly integrating third-party systems such as a Content Management System.** For larger legacy integrations like ERP or PIM solutions, Spryker offers all of its customers access to the Spryker LINK Middleware.





The GLUE API has several features that can be deployed in a purely headless way. One of such features is the customer cart feature. **With a voice device connected to the Spryker Cloud Commerce OS through the GLUE API, customers can create a cart, add or remove items from the cart, by simply giving voice commands.** This makes shopping on the go easier for busy customers who might have otherwise not been able to make a quick purchase. On the business's side, there is a chance to upsell products, as the GLUE API ensures that products related to cart items can simultaneously be shared with consumers on touchpoints such as their mobile devices.

Similarly, **the GLUE API's wishlist feature enables customers to create, view, or add products to their wishlists.** This can be done on the store's mobile app or even while the customer is driving in their smart car. Voice commands can be used to update or remove items from a customer's wishlist hands-free, while the customer is driving.

Additionally, checkouts can be carried out speedily across several touchpoints. **The GLUE API not only allows for effective integration with payment service providers (PSPs) but also enables cart items to be checked out to multiple addresses in multiple shipments.**

The GLUE API provides a ton of other features that make headless commerce possible. With a reliable e-commerce solution such as the Spryker Cloud Commerce OS and the GLUE API, you can create a more seamless experience for your customers.



About Spryker

Founded in 2014, Spryker enables companies to build sophisticated transactional business models in unified commerce including B2B, B2C, and Enterprise Marketplaces. It is the most modern platform-as-a-service (PaaS) solution with headless & API-based architecture that is cloud and enterprise-ready and loved by developers and business users worldwide. Spryker customers extend their sales reach and grow revenue with a system that allows them to increase operational efficiency, lower the total cost of ownership, and expand to new markets and business models faster than ever before. Spryker solutions have empowered 150+ companies to manage transactions in more than 200 countries worldwide. Spryker is trusted by brands such as Toyota, Siemens, Hilti, and Ricoh. Spryker was named the most innovative and visionary of all new vendors in the 2020 Gartner Magic Quadrant for Digital Commerce and named a major player in B2B e-Commerce by IDC and is the only commerce platform to provide full B2B, B2C, D2C, and Marketplace capabilities out of one stack. For more information about Spryker please visit [Spryker.com](https://spryker.com).

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