

Spryker

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Guide

# 7 Concepts to Speed up Your Digital Commerce

The Latest Speed Hacks for Technology,  
Team and Project Management



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# Why Speed is a Key Success Factor in Digital Commerce

Speed has become a crucial success factor in digital commerce as markets are changing at an accelerated pace. With the evolution of technology, the pressure to digitize is increasing, and so are customer expectations. To differentiate from your competitors and stay ahead of market developments, businesses need to be able to act and adapt fast, and to continuously test new ideas, features, touchpoints or entire business models to continuously improve their digital offering without lengthy detours. Ultimately, a shorter time-to-market, be it for a big launch of commerce software or smaller projects for specific features, leads to **faster Return on Investment (ROI)** and **lower Total Cost of Ownership (TCO)**.

But the ability to react quickly to any circumstances is not easy for many companies. **How to foster efficient collaboration with the IT department? What is the best way to establish a test & learn culture? How to evaluate the potential and relevance of new technological developments?** The existing technology stack often stands in the way to more speed, because monolithic legacy systems in particular are usually not designed for rapid adaptations, as they were developed several years ago for other needs on the market. And the same applies to the team structures, internal processes and mindsets of many companies, which also need to be optimized for the goal of fast, agile solutions in digital commerce.

This guide aims to provide companies with an overview of the latest concepts that can help them achieve greater speed in e-commerce. The latest technical developments are highlighted, and it is explained how to evaluate their benefits from a business perspective. Also, we will discuss which management approaches you can use to accelerate your IT teams and commerce projects.





## Chapter 01

# Project and Team Management

## Concept #1 Fusion Teams

### Definition

In 2020, Gartner introduced the term Fusion Teams as a new model for digital delivery<sup>1</sup>. Fusion Teams are multidisciplinary teams that blend technology and other types of domain expertise and are often designed to deliver products rather than projects.

### The Future of Cross-Departmental Collaboration

According to Gartner, companies that succeed in digital business are rethinking the way they operate. Fusion Teams are more and more replacing homogeneous departments, going hand in hand with an increasingly rapid blurring of the lines between IT and the rest of the business. As Gartner data shows, at least 84% of companies and 59% of government entities have already set up Fusion Teams.

Ultimately, Fusion Teams are a means to derive the maximum value out of digital delivery models. Fusion Teams do so by leading to increased empowerment and accountability within the team, and transferring digital skills to the broader enterprise. That helps to avoid digital talent silos and brings the corporate IT closer to the point of value delivery.

In order to achieve that, Gartner research suggests that progressive CIOs and leadership teams should focus more on the human side of managing digital business risk like cultural, organizational and behavioral aspects, and foster digital business initiatives that are distributed and simultaneous rather than centralized and sequential.





## Example

# State Machines to Ease Collaboration

At Spryker, we understand our technology as an enabler for cooperation that can fuel innovation and a test and learn culture. Our State Machine, for example, solves the challenge of translating all business needs into a coherent IT structure and ensures flawless collaboration across departments.

A State Machine, originating from mathematics, is a tool that helps you implement complex processes easily and map out and automate different business workflows, allowing you to increase efficiency fast. Simply put, a State Machine reads a string of events, and changes or remains in one of its individually pre-defined states. This methodology allows businesses to map out complex journeys and to automate processes, e.g., in order management.

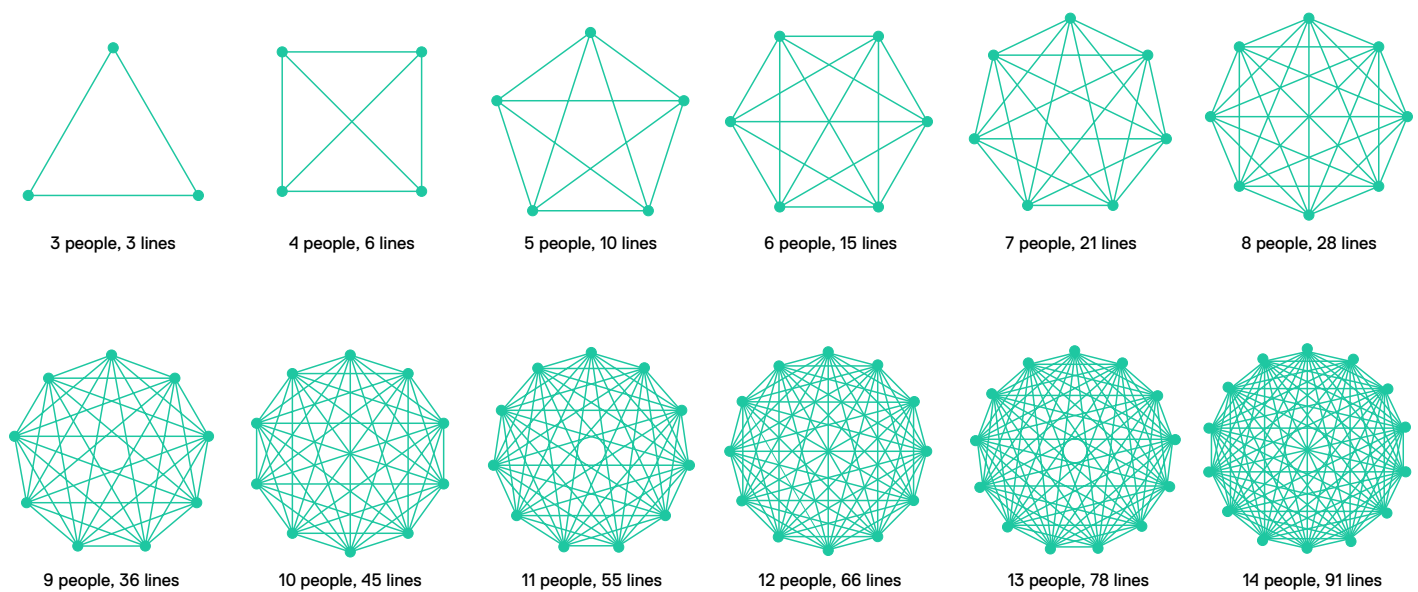
In Order Management, the different states could be 'order is new', 'authorized', 'payment received', 'shipped'. The transition from one state to another happens through events which can be processed automatically, e.g., order becomes authorized after payment has been received, or manually through a click in the backoffice. Mapping out processes like this with a State Machine is fully customizable and decreases the time of managing complicated code by your development team. And due to the easy-to-understand overview, non-IT stakeholders involved can also vet and improve the process, making the State Machine so efficient to use in Fusion Teams. It will improve your team's collaboration and speed of execution.

## Concept #2

# Brooks's Law

### Definition

Brooks's Law is an observation about software project management coined by Fred Brooks (1975)<sup>2</sup>. The gist of Brooks's Law is that “adding manpower to a late software project makes it later”, i.e., there is a negative correlation between team size and project speed due to the added complexity.



### Additional Complexity Outweighs Increased Manpower

Why would an extra person added to a project lead to more, not less time? Firstly, there will always be a certain ramp-up time, meaning that it takes a while for the people added to a project to become productive. Secondly, communication overhead increases as the number of people rises. And thirdly, limited divisibility of the task could cause more chaos<sup>3</sup>.

Of course, the experience and sophistication of the programmers involved and the quality of available documentation have to be taken into account and Brooks's Law specifically applies to projects that are already late. Nevertheless, independent of their level of experience, the additional time discussing the assignment, commitments and technical details as well as evaluating the results becomes exponential as more people are added to any project.





### Example

## 7 Years vs. 14 Days Project Duration

Even though Brooks's Law is of course an oversimplification, there are plenty of real life examples that prove its practical relevance.

One famous worst case example is Lidl's €500 Million SAP disaster<sup>4</sup>. The German grocery store chain Lidl commissioned the software provider SAP in 2011 to develop a new ERP system. More than 7 years, 3 different CEOs, and €500+ Million sunk costs later, the project was stopped unfinished. This clearly shows that the growing project and team size meant an enormous slowdown. There were several hundred developers working on the project, more and more external consultants were brought in, and it was still (or precisely because of this) not possible to bring the project to completion within 7 years.



### Success Story

A recent positive example of how to avoid the pitfalls of Brooks's Law is another German food retailer, Spryker customer Globus. They kept their Click & Collect project as small as possible from the start, with few stakeholders and clear responsibilities. This allowed Globus to achieve immediate implementation in all phases of the project, and ultimately complete the project after only 2 weeks with a successful launch of the Click & Collect solution.



[Read the whole Globus customer story](#)



## Concept #3

# Conway's Law

### Definition

Conway's Law says that "any organization that designs a system (defined broadly) will produce a design whose structure is a copy of the organization's communication structure"<sup>5</sup>. This means that systems (software, business models, ...) mirror the communication structures of the original company.



### Would Tesla Look Different if it had General Motors' History?

Conway's Law helps to understand the forces at play when organizing teams amidst the long-lasting, unattended impact they can have. In a nutshell, an organization whose structures stem from the past, is unlikely to ever produce the software system or business model of the future. Large companies whose departments are constantly at odds with each other would build business models that do not function efficiently. The idea of large companies having the best minds from siloed departments work on new business models would be shattered.

Conway's Law originated in computer science but is at least partially applicable to digital business models because the same rules apply to them. The way teams are set up and interact is often based on past projects and/or legacy technologies, reflecting an org-chart design that was created many years ago. You need to understand what outcome is needed before organizing the teams in order to avoid communication paths and structures in the business that will end up dictating the results. Large enterprises have recognized the problem and are now trying to reorganize their IT departments. After all, this is a start, even if the reorganization needs to begin with the board of directors.



## Example

# METRO Applies Conway's Law to its Digitalization

Spryker customer METRO is a leading international specialist in the wholesale and food trading industry; a business sector in which IT used to have a support function for the classic B2B wholesale business. At METRO, however, they had ambitious goals and the credo of developing their own system components that promise a competitive advantage. In line with Conway's Law, they recognized that this desired shaping of the future would be near impossible from within the old structures. Therefore, the wholesaler's tech-unit METRONOM was decoupled from the enterprise METRO AG.

As an independent unit, METRONOM gained significant flexibility and speed and could shape METRO's digital commerce in an unbiased and innovative manner. They followed the omnichannel approach to make customer purchases as fast and efficient as possible, e.g., by piloting an app to help customers navigate through very large stores. The latest digital project is flexible online stores for retailers, which are a specific target group with individual requirements. METRO quickly launched this in Romania and will roll it out further after the initial test.

Timo Salzsieder, CIO/CSO at METRO AG and CEO at METRONOM, says: "The motivation for this cooperation with Spryker was to amplify our technology, to scale faster and to provide our customers with a diversified range of functions."



[Read the whole METRO customer story](#)



## Concept #4

### CVP

#### Definition

CVP stands for 'Corona Viable Product', a spin-off of the term MVP (Minimum Viable Product), and describes the philosophy of focusing on immediate requirements and the fastest possible adjustments. The idea has been introduced as a response to sudden market changes caused by the COVID-19 pandemic.



#### When MVP is not Fast Enough Anymore

The idea for the Minimum Viable Product (MVP) methodology for software development first appeared 20 years ago, becoming mainstream with the 2011 publication of *The Lean Startup* by Eric Ries. Getting an application to MVP level has become the way enterprises create products that have just enough features to attract early adopters, providing the feedback needed to validate or abandon a product early on in its development cycle before too much money has been spent.

This agile methodology is supposed to enable enterprises to get products to market quicker. But in reality, there was often more talk about MVP than actually putting it to good use; and when COVID hit, suddenly, enterprises were under huge pressure to survive. The focus shifted from identifying what was the best product or platform to how to serve customers now, and save the business. As a result, the 'Corona Viable Product (CVP)' philosophy was born that focuses on meeting immediate requirements, rather than an MVP that focuses more on desirable features.

The CVP approach is all about accelerating your business. Companies that can adapt to this principle can respond quickly to changing market conditions of all kinds; and that's why CVPs are even more relevant than MVPs to real-world, 2021-style software development in a time of crisis. And now that businesses have had a taste of how projects can be accelerated, CVPs will stay even after the pandemic and likely change software development for good.





## Example

### Toyota Launches a CVP to Help Car Dealers in 3 Weeks

Toyota's car dealers were hit hard by COVID-19 lockdown. In order to support them, Toyota wanted to create a B2B2C online catalog for dealers to showcase their products online while their dealerships were closed. This scenario where dealers could connect and interact with end customers had to be realized in a record-low time-to-market of 3 weeks.

Jens Brech, Director Customer Experience and Network Quality at Toyota, says: "We needed a solution now, but the expectation was we would get a solution in two or three months, which in normal times was very fast for us, but not acceptable in the crisis. Nonetheless, we were able to switch on the new vehicle stock locator on our website in three weeks, which was unbelievable."

When it comes to making CVP rapid adoption possible, changing mindset is often a bigger challenge than changing the underlying tech. Toyota knew that when their stores closed, they needed to get the product in front of customers fast; there was an immediate understanding of this requirement because they had the right CVP mindset.



[Read the whole Toyota customer story](#)



## Chapter 02

# Technology

### Concept #5

## Composable Commerce & PBC

### Definition

Composable Commerce is the idea, as defined by Gartner<sup>6</sup>, that businesses should be able to select “best-of-breed” commerce components instead of “off-the-shelf” bundles, combining or ‘composing’ them into a custom application tailored for their business needs. This means that software solutions should be made up of packages of components that can be used individually and connected with other vendors, as needed.

***“By 2023, organizations that have adopted a composable approach will outpace competition by 80% in the speed of new feature implementation.”<sup>7</sup>***

### The Core of Speedy Digital Commerce is Adaptability

Creating modern, engaging customer experiences is harder than ever as expectations have skyrocketed in recent years. That is why it is no longer sufficient to use only standard functionality as a one-size-fits-all offering. The Composable Commerce principle leverages „best-in-class“ commerce services to enable companies to pick and choose whatever fits their business needs, instead of being forced to use redundant technology.

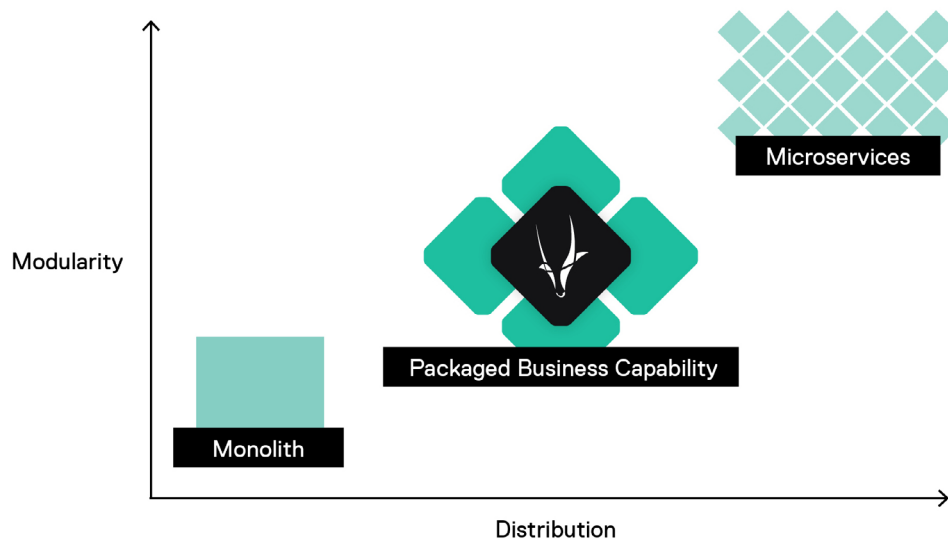
Composable Commerce achieves this by combining Packaged Business Capabilities (PBCs). PBCs have also been introduced by Gartner<sup>8</sup> and describe an assembly of functionalities, that are grouped into larger clusters that typically form logical business entities such as Order Management, CRM, or Price & Promotions. A composable approach utilizes multiple vendors who offer robust, comprehensive functionality for their unique offering to find the best possible solution for each of these clusters.

Digital commerce is subject to ongoing modularization and Composable Commerce is the next step in creating future-proof digital commerce experiences. Its positive impact on speed lies primarily in the flexibility gained in adaptations and the pace of bringing new solutions to market maturity by relying on robust, proven solutions from different providers.

## Example

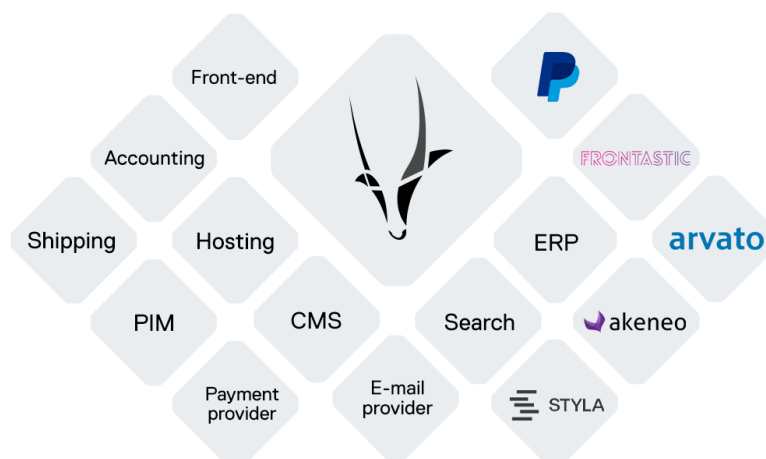
# The Difference Between Microservices and PBCs

The terms microservices and PBCs are very similar, which can get confusing. In fact, the two concepts are complementary. Microservices are a way in which an application is or can be broken down into small functions or features. Packaged business capabilities are an aggregated set of microservices.



Composable Commerce focuses on PBCs instead of microservices because it emphasizes the best-of-breed approach. For this purpose, microservices are too small, granular units within a single solution. Martin Fowler, software development author and Chief Scientist at ThoughtWorks, says: “Don’t even consider microservices unless you have a system that’s too complex to manage as a monolith”.

Composable Commerce is thus the sweet spot between the modularity of microservices and the ease of a monolith. That is why in the Spryker Cloud Commerce OS, companies can select their needed capabilities and easily glue them together. Spryker will never make you compromise on which solutions are best suited for your business. With a best-of-breed approach and mind-set as well as a huge partner landscape, Spryker enables limitless flexibility and unprecedented speed for its customers.





## Concept #6

# Headless

### Definition

Headless Commerce is an e-commerce architecture that allows for a separation between the front-end (customer-facing layer) and the back-end infrastructure (where the shopping cart, product catalog, payment gateway and other features ordinarily reside). To put it simply, with headless commerce, the front-end is decoupled from the back-end.



### Achieving Customer Orientation Through Flexibility in Development

The front-end is the starting point for optimizing conversion rates or trying out new touchpoints. Therefore, it requires a great deal of experimentation and changes. The back-end needs to be secure and is consequently developed at a very different pace. Headless architecture means that both layers are developed independently, so they don't impact each other negatively.

Traditional e-commerce systems are mostly monolithic and give very little room for flexibility. With such systems, the front-end and back-end are inextricably linked to each other making it difficult for developers to make modifications to the front-end without compromising the back-end. This typically poses a challenge for businesses that desire a much more tailored and flexible user experience.

At a time when the battle for consumer attention is at an all-time high, adopting a customer-centric strategy with your e-commerce efforts could help in securing long-term success for your business. However, in order to successfully achieve this while staying agile and fast, you need a headless commerce solution.

1995

## 1. Generation

ERP - centric



### Example

## Integrating IoT with the Spryker Cloud Commerce OS

A good example for the application of headless technology is IoT. These days, consumers utilize, for example, voice assistants to support them as they conduct everyday tasks, and any voice device can be connected to the Spryker Cloud Commerce OS back-end through the GLUE API.

Spryker's innovative solutions come with several capabilities and features that enhance customer experience. The Spryker GLUE API features enable B2B and B2C companies to connect with their customers via various touchpoints such as wearables, voice devices and even in-store or warehouse smart-shelves. Some of these features include displaying product options, creating wish lists or shopping lists, managing orders, handling payment methods and multiple shipments.

With Spryker's countless headless offerings, businesses can expect increased scalability and agility. Now more than ever, there is a need to speedily deploy relevant functionalities which satisfy customers and make business operations run more smoothly. Headless commerce guarantees that user experience remains consistent across the board and the high level customization capabilities it provides create a much stronger brand image for Spryker's customers.

2003

## 2. Generation

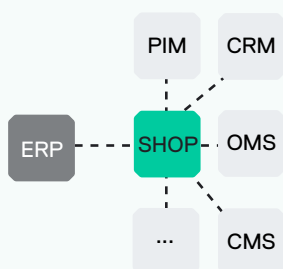
Shop - centric



2012

## 3. Generation

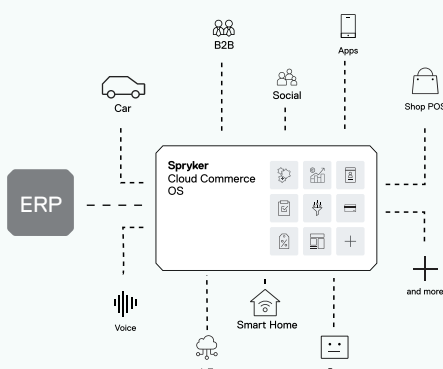
Service - centric



2017

## 4. Generation

API-based & headless



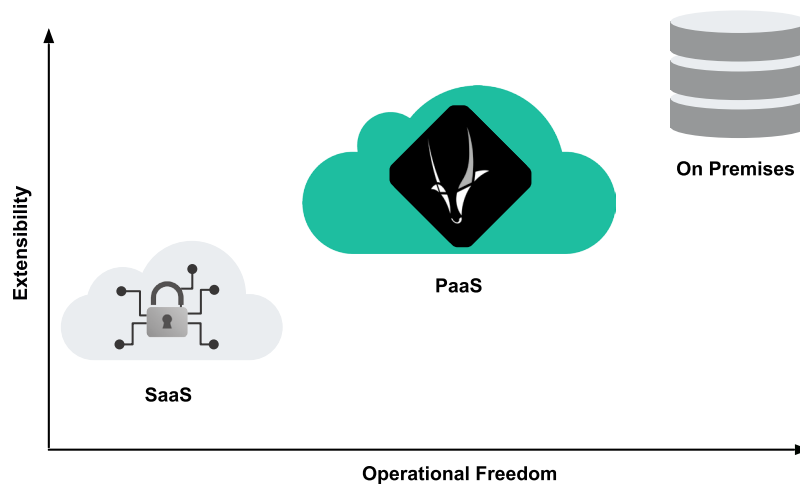


## Concept #7

# PaaS vs SaaS

### Definition

Software as a Service (SaaS) and Platform as a Service (PaaS) are both models of cloud service for businesses. SaaS utilizes the internet to deliver applications, which are managed by a third-party vendor, to its users. PaaS delivers a framework for developers that they can build upon to create customized applications.



### Does Your Digital Business Need a Standard or Customized Solution?

Each model of cloud computing has its pros and cons, so recognizing which model is the right fit for a company is important. SaaS is a standardized solution with very limited options for customization and differentiation. It helps businesses to save time and money spent on tedious tasks such as installing, managing, and upgrading software. On the other hand, it comes at the expense of customization, a vendor lock-in, and limited control over features and performance. In digital commerce, SaaS is mostly suited for non-sophisticated B2C-only environments, especially around retail-only use cases aiming to build simple web shops.

PaaS users are traditionally able to access a software development platform via a web browser. Easy access to a suite of development tools means programmers can program, and businesses can quickly deploy new applications. If SaaS is for standard solution, PaaS is the way to go beyond the standard in digital commerce. There are no limits in terms of customization and integration, and it offers maximum scalability and availability. It is best suited for enterprises aiming to solve unique or complex business requirements and sophisticated transactional use cases like Unified Commerce or Enterprise Marketplaces.

Ultimately, every company needs to weigh its business goals, and be clear about what it needs to make an informed decision. In terms of speed, both SaaS and PaaS are vastly superior to an on premise solution. PaaS simply expands this speed of action to complex use cases and customizations.

## Example

# Pizza as a Service

To illustrate the differences between PaaS, SaaS and on premise, we use the analogy of eating pizza.



You Manage



Vendor Managed

## Homemade

Traditional On-Premises

An on premise solution is the equivalent of making your own pizza at home. You have to take care of everything yourself. From getting the ingredients, to preparing the pizza, to setting the table and cleaning up.



## Pizza Delivery

Platform as a Service (PaaS)

The PaaS version of eating pizza is pizza delivery. You choose your favorite pizza and get it delivered ready to eat. You only have to decide where you want to eat and take care of the drinks, but you can also freely decide on side dishes and add extra toppings that you have in your fridge.



## Dining Out

Software as a Service (SaaS)

When dining out, you have a set selection of choices, which is therefore equivalent to SaaS. It's convenient and simple, but your options are tied to the restaurant's capabilities; and if you get hungry for something else, you have to switch restaurants first.







## 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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