



# The Composable Commerce Migration Guide for B2B

Tidying up your commerce infrastructure to spark joy



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# Executive summary

“Your real life begins after you have put your house in order.

— Marie Kondo

While a few forward-thinking B2B companies invested in digital commerce early on to capture the rising buyer demand for self-service eCommerce, many B2B players ignored the digital commerce revolution for a long time, keeping the buyer experience analog, manual and on a one-to-one basis. It took the outbreak of the COVID-19 pandemic — when the majority of B2B organizations started digitizing their businesses at a breakneck pace — for the B2B eCommerce market to start growing exponentially. It's now projected by research giant [Gartner®](#) that by 2025, 80% of B2B sales interactions between suppliers and buyers will occur through digital channels.

As B2B digital commerce heats up, how do the early movers fare in this increasingly competitive and fast-moving landscape? Since going digital, a large majority still rely on legacy (aka, monolithic) commerce platforms, which were the right solutions at a time when all eCommerce self-service was done on a desktop computer or through a sales rep. However, the post-pandemic world has shown that B2B buyers want to purchase across multiple channels, preferably with a B2C-like experience, and do not necessarily need to speak to a sales rep every step of the way.

In short, the rules of the game have changed, and the legacy platforms many B2B organizations are on simply cannot keep up with today's customer demands and constant market shifts. What's more, the manufacturers, distributors and wholesalers with an established digital footprint in place need to take the necessary steps to declutter, reorganize and, very likely, migrate to a modern commerce infrastructure.

If you're reading this guide, it's because you're exploring options to move away from your legacy platform — be it an “all-in-one” or a homegrown solution. Gartner, Forrester® and other leading industry analysts recognize composable commerce as the modern approach to maximize flexibility and agility to meet customer expectations in these fast-paced, constantly changing times. Composability is all about embracing change and using it as a tool to differentiate and grow.

100% focused on the unique perspective of the B2B market, this migration guide shows that transitioning from legacy to composable is not as complex, costly or risky as you may think. In fact, hundreds of B2B leaders have already started this journey with commercetools Composable Commerce for B2B and reaped the advantages of a modular, flexible and agile infrastructure. Here, we provide a practical guide to discovering the nuts and bolts of composable commerce, migration best practices for your replatforming project and the steps to help you in this process, so your commerce house can finally spark joy.

# Why migrating to composable commerce sparks joy for B2Bs

“ The best way to choose what to keep and what to throw away is to take each item in one’s hand and ask: ‘Does this spark joy?’ If it does, keep it. If not, dispose of it. This is not only the simplest but also the most accurate yardstick by which to judge.

— Marie Kondo

Understand why now is the right time to migrate off monolithic platforms and adopt composable commerce.

- Why migrate off your legacy platform
- Evaluating the key drivers for B2Bs to replatform
- What’s composable commerce and why does it matter for B2B?
- Composing your commerce with commercetools
- Considerations for your migration to composable commerce
- What B2B-specific features should you assess?

# Why migrate off your legacy commerce platform

“ You need to have the agility to adapt to your changing requirements and needs. I believe that the MACH® approach suits that quite well. If we would have built the system with a traditional monolith eCommerce system, we would have lost that agility for the future. This is why we chose composable architecture

— Pekka Jaarinen, Director of Digital Services, Normet

Also called a “monolithic” platform, a legacy commerce system is built as an all-in-one solution with all components (frontend and backend) being heavily coupled and included out-of-the-box. Many first-movers in B2B digital commerce traditionally still rely on these legacy infrastructures as those systems have been the paradigm for a long time. However, these outdated technologies continue to experience significant issues for a couple of years — and they tend to get even worse as time goes by:

- **Lack of flexibility:** Monolithic systems are, by definition, inflexible and difficult to customize, because they must be retested and redeployed in their entirety every time a change or update is queued. This lack of flexibility makes it challenging and time-consuming for B2B businesses to tailor the platform to their specific needs.
- **Difficult to manage:** Integrating with other relevant enterprise applications and data sources usually leads to data silos and inefficiencies. Also, any upgrades, updates or changes are incredibly complicated due to the tightly coupled nature of monolithic platforms and usually translate into downtime and disruption to business operations.
- **Difficult to scale:** B2B companies have traditionally relied on on-premise IT infrastructures, which face frequent capacity constraints and have a high total cost of ownership (TCO). When confronted with high traffic peaks, legacy systems may experience slowdowns, downtime, or worse, a crash.
- **Difficult to innovate and adapt:** With a monolithic platform, your developers are busy maintaining the system and fixing bugs. The platform itself is hard to customize, extend and ship releases constantly. That rigidity means B2B companies cannot easily adapt to new market conditions or evolving buyer expectations.
- **High costs:** The cost of legacy platforms is more than a licensing fee or cost of integrations. It's also about upgrades, maintenance and the (often hidden) cost of technical debt. If you're keeping track of these costs in a multi-year journey, you'll notice that the real TCO of your legacy platform is much higher than initially thought.

It's clear that legacy solutions have run their course and can actually be detrimental to your business' success in the long run — a paradigm shift recognized by leading market analysts.

As B2B businesses have to contend with a myriad of strategic business goals to stay ahead of competitors, customer expectations and market shifts, their reliance on a legacy platform has become a liability instead of an asset. So, is replatforming away from a legacy platform to composable commerce the right answer for your business? To decide if a migration makes sense, evaluate your current commerce system against your goals.

## Evaluating the key drivers for B2B organizations to replatform

Does your technology enable or hinder your business' ability to achieve these strategic drivers? Answer these questions to find out.

### **Driver #1** Digitize customer experiences

To increase loyalty and sustain revenue streams long-term, it's essential to double down on digital capabilities and omnichannel investment.

#### **Key questions you should ask**

- Are your customers satisfied with their current commerce journeys?
- What needs to change in order to achieve a higher customer satisfaction rate?
- How easy is it to customize experiences according to customers' needs?
- Are you able to display accurate and real-time information on pricing, product and availability?
- Do you need advanced eCommerce features, like quote management, etc.?

### **Driver #2** Achieve operational efficiency

Data silos, as well as manual and mundane tasks, have a negative effect on your overall business performance and velocity, and employee morale. Streamlining operations is crucial to remain competitive.

#### **Key questions you should ask**

- How many errors and data discrepancies do you experience currently?
- How many hours does your tech team spend on maintenance and bug fixing?
- How easy is incorporating new functionality or integrating third-party systems, like an ERP?
- How many manual and time-consuming tasks, e.g., phone or fax orders, can be automated with technology?

### **Driver #3 Reduce TCO**

If you need to invest significant resources in maintaining your commerce platform, minimizing the costs of infrastructure, maintenance and upgrades becomes crucial.

#### **Key questions you should ask**

- Is your eCommerce platform costly and time-consuming to maintain?
- What's the extent of technical debt accumulated in the commerce ecosystem?
- Are you experiencing high and/or rising licensing and hosting costs?

### **Driver #4 Accelerate ROI**

It's vital not only to future-proof existing revenue streams but also to generate new ways of upping the bottom line by moving as fast as the market and customer expectations.

#### **Key questions you should ask**

- Can you customize and extend functions to tackle new opportunities quickly?
- How well does the system scale to handle large SKU counts and order volumes?
- Do version upgrades and changes negatively impact operations and budget?
- How fast can you release new features to the market?

### **Driver #5 Innovate and adapt**

Refocus your teams' efforts from maintaining the platform to driving innovation.

#### **Key questions you should ask**

- How well does the system perform and scale?
- Do you have plans to expand internationally?
- Do you have plans to expand to new business models like D2C?
- Is your product catalog extensive and/or complex? Is it currently growing or do you want to add to it?
- Are you acquiring new business units as part of an M&A strategy?
- How easy is it to adapt customer experiences, internal processes and operations?
- How long does it take to release new products and features?

If your current tech ecosystem is unable to support the business objectives of today and tomorrow, it's time to consider migrating to composable commerce.

# What's composable commerce and why does it matter for B2B?

A composable approach liberates B2B companies from the limitations of all-in-one and homegrown platforms: No longer must you deal with over-standardized feature sets or build everything from scratch. Essentially, composable commerce gives companies the flexibility and freedom to leverage best-of-breed commerce components like checkout, cart and search, and combine them according to their needs.

Composability supports a “**build-and-buy**” approach, which gives B2B firms the ability to integrate commoditized components from best-of-breed solutions that fit their business needs at any given time AND build/customize the bits that reflect the uniqueness of their business.

In B2B, a composable system provides out-of-the-box features via APIs and templates for standard use cases like quoting and business unit-specific pricing, while still allowing for extension-based customization. Such capabilities are crucial to tackle B2B's inherent complexity. In other words, B2B companies are increasingly adopting a composable approach to become digitally mature faster and more cost-effectively.

A true composable system is more than best-of-breed components and includes three core traits:



**Component-based:** Plug and play independent and interchangeable components to meet the unique needs of your business.



**Cloud-native:** Leverage the full power of cloud-native infrastructure to achieve exceptional scalability, reduce costs and improve online performance.



**Tech-agnostic:** By allowing developers to select and manage applications without proprietary technology that requires specific programming languages and certifications, your business can boost developer productivity and innovation big time.

## 7 business benefits for B2B organizations

- 1. Unlimited flexibility and agility.** B2B firms tend to have complex and unique requirements, such as handling large order quantities, managing multiple pricing tiers and integrating with ERP systems. Addressing these complexities requires a fully flexible, scalable and agile approach — the cornerstones of composability.
- 2. Infinite scale.** Run multiple brands, expand to new markets, bring in new channels and even try out new business models with ease. Respond faster to influxes of traffic and customers with autoscaling and high SKU processing times.



3. **Automate labor-intensive processes.** Automate and optimize processes that currently require extensive manual overhead, like handling complex payment terms, quote generation and reordering.
4. **Reduce total costs of ownership (TCO).** As a versionless system, composable commerce eliminates the need for upgrades, maintenance or backward compatibility of customizations. Also, technical debt and hosting fees become a thing of the past. Cloud-native infrastructure eliminates the need to pre-provision and manage servers to handle traffic peaks and reduces hosting costs.
5. **Boost ROI.** Create customized journeys to differentiate, accelerate experimentation and innovation to increase market share, and expand to new geographies and even to new business models like D2C, easily.
6. **Reduce downtime risks.** The distributed nature of composable architecture reduces the risks of system crashes, as any issues that may arise are easier to contain and fix since the components are decoupled from each other architecturally.
7. **Adaptability and incremental innovation.** Designed for constant change, a composable approach enables companies to swap functionalities in and out without friction, as well as reduce time-to-market for new releases.

## Minimizing B2B complexity with composable

B2B businesses have one trait in common when it comes to commerce: Complexity. Managing multi-tiered distribution channels, cross-border transactions, supply chain issues and catering to customer-specific demands remains a challenge. Many organizations have implemented all-in-one software or built homegrown solutions in the hopes of abstracting complexity in commerce, only to learn that those massive and often feature-rich solutions aren't flexible, agile or adaptable enough in a rapidly changing environment.

**Composable commerce arose as a response to constant change**, leveraging agility and real-time responsiveness to new market dynamics. Most importantly, a composable approach helps B2B firms minimize complexity because it's easier to:

- Tap into the power of best-of-breed applications as integrations are plug-and-play.
- Leverage low/no-code commerce solutions for business practitioners.
- Deploy components incrementally, reducing the risk of large-scale implementation projects as well as accelerating time to value.
- Empower developers to scale tech stacks and drive innovation without the burden of proprietary technology as they can work with a tech-agnostic approach.

**“ We're already seeing returns on the average order value size 2.5 times what we had previously. And a big part of that is just because we can create a better experience, we can get things out faster. Our team doesn't have to work within the confines of the monolith anymore.**

— Matt Swan, Technical Product Manager, [ACE Southern](#)

## Composing your commerce with commercetools

The commercetools product portfolio provides the essential elements to create a commerce solution that's not only the right choice for the beginning of your eCommerce journey — it's a future-ready platform that lets you evolve your digital footprint without limits. Our composable approach ensures that your team can experiment and innovate at speed to meet the outstanding experiences your customers now expect from B2B purchasing journeys.

Named as a Leader by 2023 Gartner® Magic Quadrant™ for Digital Commerce

Named as Leader by IDC MarketScape: Worldwide B2B Digital Commerce for Midmarket 2023-2024

Recognized with a record-breaking 15 gold medals by Paradigm B2B Combine 2024

Hundreds of businesses already customized their commerce stacks to deliver unique customer experiences with [commercetools Composable Commerce for B2B](#), from digital newcomers like Dawn Foods and Normet to digitally mature B2B companies replatforming to composable, such as Tamron Europe, Zoro.com, and more.

### Accelerate time to value with commercetools Foundry



Many technology professionals fear that a digital project may take years and cost millions of dollars. That's where pre-composed solutions come in: With a pre-configured set of components, features, best practices and launchpads, the adoption of composable commerce becomes much easier and faster.

[commercetools Foundry Blueprint for B2B Manufacturing](#) brings together all the components you need to build and run outstanding purchasing experiences as a pre-composed solution that allies commercetools Composable Commerce for B2B, Frontend and Connect.

Since a pre-composed solution typically provides already integrated components that are ready to use, it also allows for greater flexibility and customization, so businesses can scale and grow without constraints.

## commercetools Platform

A composable commerce tech stack based on commercetools has three layers:

1

**The presentation layer (customer-facing):** The presentation layer, also known as the frontend, combines applications and languages used to develop and design your website or digital storefront. commercetools Frontend powers consumer-facing touchpoints and is extensible per customer needs. Alternatively, a custom-build or third-party frontend product can be used.

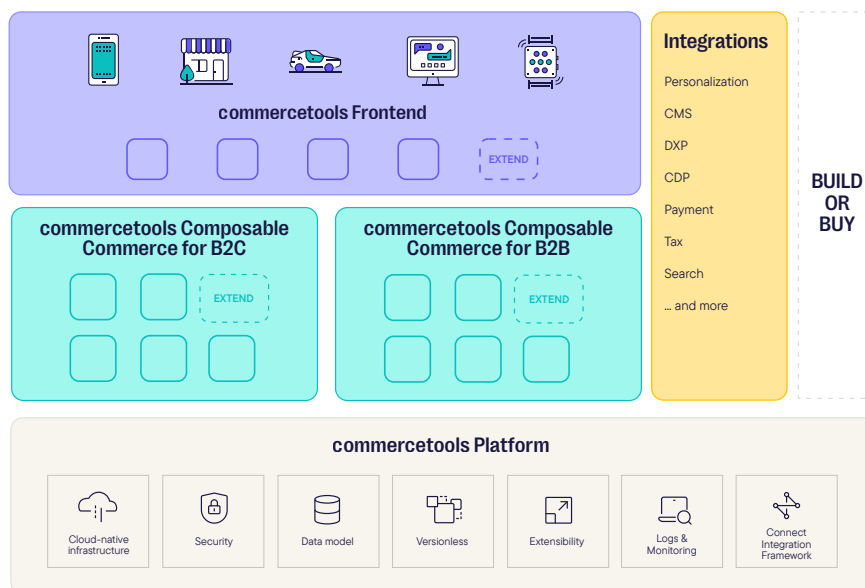
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**The application layer (server-facing):** The application layer, also known as the backend, provides the component-based applications to address eCommerce needs. commercetools applications for B2C and B2B businesses address specific eCommerce requirements; those are extensible per customer needs. Additionally, custom-built or third-party applications can be used. A wide range of integrations allows commercetools to connect with third-party offerings (applications, workflows, etc.)

3

**The platform:** The commerce platform provides the cloud-native foundation and infrastructure for the presentation and application layers.

### Enterprise-grade composable commerce powered by commercetools



## The role of integrations and connectors

With best-of-breed at the heart of a genuine composable commerce approach, commercetools provides a wide range of integrations, from standard partner-built integrations to pre-built secure connectors hosted by commercetools ready to be leveraged for your business. These best-of-breed partners with seamless integration options with commercetools Composable Commerce come in two flavors:

- **Standard integrations:** Get ready-to-go integrations with payment systems, search and more. [Explore →](#)
- **Connectors:** Leverage certified, low-code connectors that run on commercetools environment, with pre-built, enhanced or fully custom options. [Explore →](#)

## 9 additional technology pillars at commercetools

commercetools' architecture leverages nine additional principles for a cost-effective, flexible and developer-friendly environment.



**APIs:** With a modern commerce platform designed to be API-first with extensive REST APIs, you can connect your frontends and backends within your business ecosystem effortlessly.



**Cloud-native:** All commerce services are in the cloud, eliminating dependencies on servers, including storage, hosting, scaling, etc. Automatic vendor updates and auto-scaling support a seamless commerce experience, even during traffic spikes.



**Microservices:** A collection of granular services that perform a specific task within an application. Each has its unique code and can be developed, updated, deployed and maintained independently – increasing the agility of your IT teams.



**Multi-tenant:** As a multi-tenant infrastructure that serves multiple customers, you unlock economies of scale that drive costs down and simplify operations.



**Versionless:** With software that is always up-to-date with incremental improvements, you don't need to worry about maintenance efforts or upgrades.



**Flexible data model:** Tweak the data model according to your needs. Product types and variants can be assigned into multiple categories and there's no limit to custom product attributes, which can be configured from the many different data types.



**Extensible:** By using serverless functions, you can modify, add and extend virtually any API call commercetools has under its belt.



**Strong developer community:** commercetools has a strong developer community and offers extensive documentation, tutorials and resources for developers.



**Security:** The entire infrastructure, development and processes take full advantage of state-of-the-art cloud functionality, as well as being multi-tenant and running in certified data centers at several locations in Europe, the US and APAC. commercetools is also compliant with ISO/IEC 27001, TISAX, GDPR, among others.

## The business tooling to manage all things commerce: Merchant Center

With the **Merchant Center**, [commercetools' business tooling](#), marketers and business users can run commerce experiences with an easy-to-use interface without depending on tech teams. Not only can you accelerate time-to-market when you create new promotions, manage discounts and set up new sales outlets, but you can improve employee productivity and take care of key commerce data from end to end.

## How commercetools Composable Commerce de-risks your business

Modular technologies like composable commerce are best positioned to de-risk your business by embracing change as a tool instead of a threat. In fact, leading analyst [Gartner®](#) states that embracing composability is when “everything is designed to change, and change is considered often, to achieve large and small outcomes, eyeing both growth and resilience.” In short, composable commerce helps you lower risk in the following ways:

- **Modular and decoupled:** When your commerce infrastructure breaks free from a tightly coupled approach, you worry less about single points of failure or full application failure with long resolution times. With composable, your infrastructure is more distributed, so in case of issues (e.g., the ERP is down and your business still needs to collect orders), they are easier to contain, fix and maintain a seamless customer experience. In addition, your infrastructure can release new features, touchpoints and any improvements faster, benefitting your overall performance.
- **APIs and data modeling:** With a super flexible infrastructure, you're in charge of how your workflows and data behave — not your vendor. You can model data, as well as extend and customize APIs to respond how you want to. The introduction of new processes are, therefore, easier.
- **Operational efficiency:** Reduce the risk of human error during manual tasks with process automation.
- **Streamlined integrations:** Having a lean tech stack is crucial with what you need and what you use. Not only can you easily swap integrations in and out without issues, but you can also experiment with a lower upfront investment.

## All of the out-of-the-box features for B2B at a glance

Unlock the value of digital commerce with a robust, native B2B-specific feature set.

### **Discovery**

- **Marketplaces:** Leverage marketplaces of all kinds (company-owned, third-party, horizontal or vertical marketplaces) in a plug-and-play manner.
- **Promotions:** Create any type of promotion your business needs, including free gift items, fixed price, % off an order, etc.
- **Search:** Language-aware, full-text search power comprehensive product searches. Easy navigation and faceted filters allow you to scope down results by countries, channels, currencies and more.

### **Product catalog**

- **Custom and complex products:** Unlock multiple product variations and configurations, as well as complex product relationships, in a customizable product catalog.
- **Customer-specific product catalogs:** Create custom catalogs that show a pre-selected set of products to customers based on sales negotiations, available items and/or customized to your customer needs.

### **Pricing**

- **Pricing at scale:** Support up to 50,000 prices per product variant and serve the needs of B2B companies with multiple stores or business lines reliant on customer-specific pricing.
- **Business unit-specific prices:** Set product assortments and pre-negotiated prices per business unit to deliver tailored shopping experiences.
- **Business unit-specific discounts:** Set discounts per business unit on the cart/order or per organization, enable one-off deals, etc.



## Sales and approvals for B2B

- **Business units:** Model your customer's organizational structure and set the appropriate roles and permissions, so associates can place orders and quotes on behalf of their business units.
- **Granular roles and permissions:** Further define roles and permissions within multiple business units so customers can manage their business activities effectively. Buyer approval flows: Help customers implement purchasing checks and balances to ensure authorized purchases based on specific criteria (i.e., order total, shipping costs).



## Ordering and payment

- **Omnichannel carts:** Any shopping cart updates are immediately reflected on every channel.
- **Shopping cart "freeze":** Prevent discrepancies from price updates in potentially protracted collaborative buying processes.
- **Purchase order support:** Enable your business customers to pay via Purchase Order, and keep track of it in their systems of record, e.g., ERP, CRM, etc.
- **Subscriptions, reordering and order scheduling:** Enable buyers to easily reorder and schedule orders.



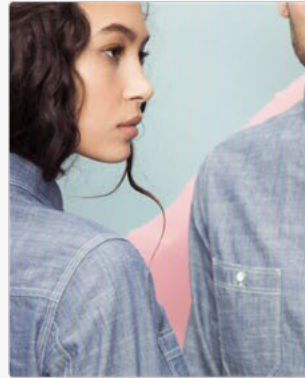
## Fulfillment and service

- **Multiple shipping options:** Give buyers the freedom to ship one order to multiple locations and help them track their shipments.
- **Customer search:** Find your customers' business units faster in the Merchant Center as well as the API to streamline your customer care, troubleshooting and order management.

## Hear it from an expert



Aishwarya Mahulikar is a Platform Operations Manager at [Loomstate](#), a B2B fashion brand that supplies casual and professional apparel.



“We are growing as a company, so moving to a composable architecture provides many advantages but also requires a deep technical understanding. Initially, we engaged with commercetools partners with proven expertise and now we have created our own (small) development team to keep improving and extending our solution.

**We decided to migrate primarily because our platform at the time was very slow, it took a long time to implement new features, it was expensive to run, wasn't user-friendly and the performance was less than ideal due to the high order and customer volume.**

We did our own frontend implementation — looking back, that was a mistake and way too complex. Now, we would advise to use commercetools Frontend with Vue Storefront or a similar platform to speed up and standardize the process. Another thing we'd do differently is to take the time to analyze replacing our legacy ERP with a more modern solution. We still use the same ERP and it is probably one of the major pain points.

In terms of how we overcame challenges, firstly, we addressed the complexities of data migration by developing a customer script leveraging the commercetools API, ensuring a seamless transfer of data. To align with commercetools' commerce-centric nature, we incorporated MACH-compliant, best-in-class tools into our architecture. For integrating our monolithic ERP, we adopted an asynchronous architecture and some of the events-based possibilities that commercetools offers. Finally, to manage additional integrations, we benefited from the flexibility of commercetools' architecture and different SDKs, as well as support from a certified commercetools partner.”



## 5 considerations for your migration to composable commerce

What should you take into account when migrating off a monolithic platform to composable commerce? Here's a checklist to help you in this process.

### 1. Identify your business drivers and customer needs

- Consolidate customer feedback and prioritize what's considered critical.
- Define your business drivers for a replatforming project, e.g., reduce TCO, increase revenue, improve customer experience, etc.
- Audit your technology based on your business drivers and strategy.
- Evaluate the time-to-market for your business to implement the new solution.

### 2. Cross-reference business requirements and new platform capabilities

- Audit out-of-the-box features and components, e.g., order scheduling, quotes management, payment and shipping options.
- Assess new features and components based on your future needs and ability to scale.
- Assess frontend/UX capabilities.
- Assess auto-scaling capabilities, reliability and security.
- Analyze the pricing model through a long-term lens for a complete TCO picture.
- Check if different levels of access and permissions are supported.
- If applicable, select an integration partner.

### 3. Customization, integration, personalization

- Assess the ability to support omnichannel and personalization strategies.
- Evaluate customization options, e.g., extension points, product configurations, etc.
- Evaluate personalization options, including order history and product catalogs.
- Assess integration capabilities with best-of-breed suppliers as well as internal applications, such as ERP and CRM systems.
- Assess pre-built connectors and integration tools.

### 4. Data migration

- Check if a built-in import-export functionality is available to migrate data.
- Check if a phased approach to migration is possible (aka, the strangler pattern).
- Select your migration approach according to your requirements, team capabilities, etc.

### 5. Training, support and documentation

- Assess training materials and support information.
- Assess business tooling.
- Assess technical documentation.

# Migration best practices to tidy up your commerce

“ To truly cherish the things that are important to you, you must first discard those that have outlived their purpose. To throw away what you no longer need is neither wasteful nor shameful.

— Marie Kondo

Learn what migration options to commercetools Composable Commerce for B2B are available and how to get started.

- Migration options, compared
- What's the strangler pattern and when to use it
- What's the big bang approach and when to use it
- What are the main routes to start your migration process?

# Migration options, compared

There are two migration options to transition from a monolithic platform to a composable stack: Big Bang (also known as “Greenfield”) and the Strangler Pattern (also known as “Phased Migration”). Here’s an overview:

	Big Bang	Strangler Pattern
<b>Definition</b>	Rebuild the complete commerce architecture and release it entirely in one operation. Your platform remains in place until the new infrastructure can be switched on in a single “big bang” event.	Break your platform into small pieces as microservices and slowly replace those with single components incrementally. Over time, the monolith will start to “suffocate” and eventually disappear.
<b>Pros</b>	<ul style="list-style-type: none"> <li>• Migrating the entire system in one event means developers get a clean slate and don’t have to interface with legacy code or parallel systems.</li> <li>• Defined cut-off point.</li> <li>• No need to decouple the existing system to implement a new system.</li> </ul>	<ul style="list-style-type: none"> <li>• Control every step of the migration process while minimizing disruptions and downtime.</li> <li>• Experiment with components easily, as you can easily swap them.</li> <li>• Low margin for error: If a single phase fails, only this phase needs to be rolled back and repeated.</li> <li>• Deliver business value/ROI faster.</li> <li>• Lower upfront effort in planning.</li> </ul>
<b>Cons</b>	<ul style="list-style-type: none"> <li>• Risk-prone options due to unpredictable errors and downtime.</li> <li>• Requires thorough planning.</li> <li>• High margin for error: If the migration fails, a complete rollback is usually required.</li> <li>• Business value/ROI takes a long time to realize.</li> </ul>	<ul style="list-style-type: none"> <li>• Effort to keep two systems running in parallel for technical staff and users.</li> <li>• The migration in itself takes longer.</li> <li>• Requires source system to be decoupled so the target system can serve functionalities bit by bit.</li> </ul>

## What’s the best approach for your business?

It’s entirely up to you. When considering what approach to take, take into account:

- How easy is it for your current system to be broken down into smaller components?
- How experienced is your team with microservices?
- Does it make sense to create a proof-of-concept (POC) and pilot it with a subset of your buying journey?

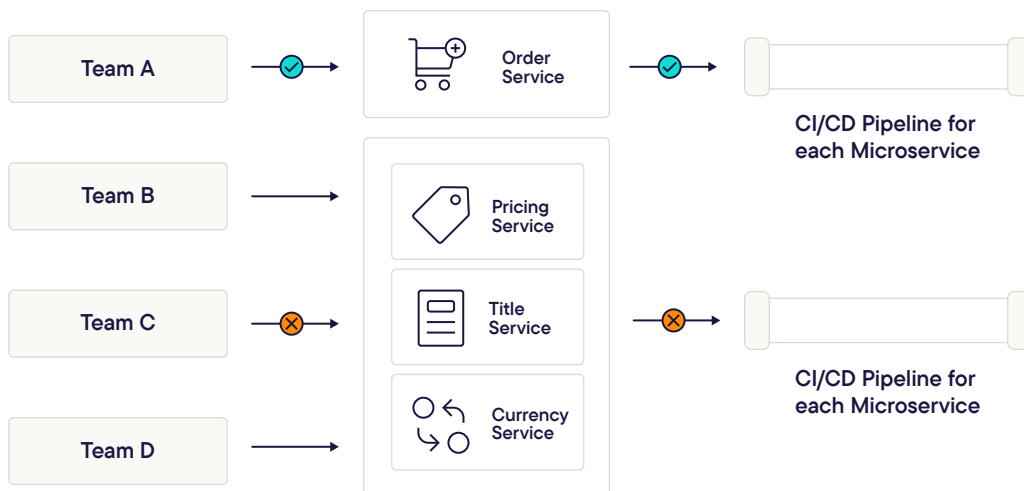
To help you decide, have a deeper look into the strangler pattern and big bang approaches, and the migration starting points in the following pages.

## What's the strangler pattern and when to choose it

The strangler pattern is a popular migration approach that gradually transitions your monolithic application into **microservices**, replacing functionalities piece by piece. In digital commerce, the strangler pattern has become a popular migration method because it reduces the chances of system disruptions. At the same time, businesses can reap the benefits of new applications without waiting until the entire solution is complete.

More than migrating from a monolith application to microservices, the strangler pattern reduces complexity with an automated CI/CD (continuous integration and continuous delivery) pipeline for each microservice. That way, it's possible to deliver business features faster.

### Strangler Pattern in Action



To streamline the transition from **monolith to microservices**, follow three main steps:

### 1. Transform

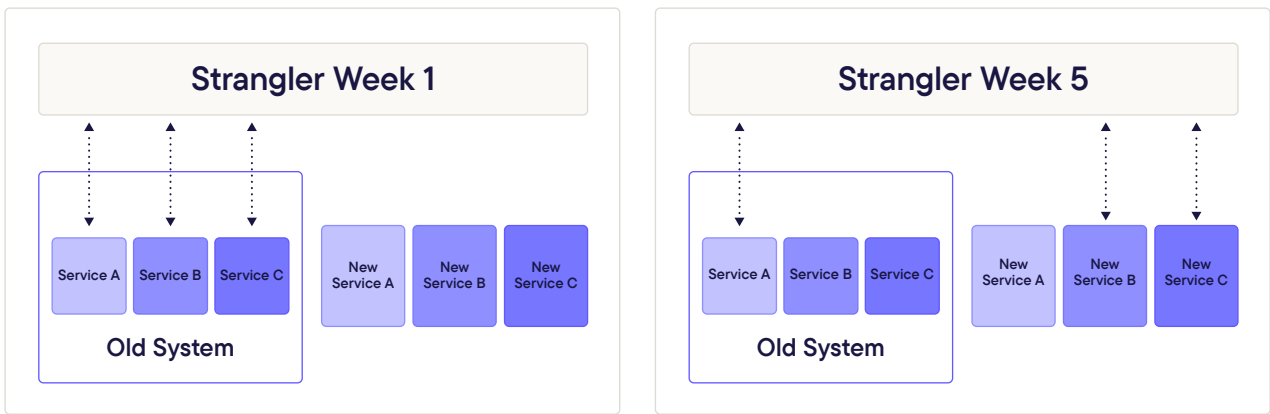
the application by creating new versions of existing services: Once the new component is built, you can test it against the current legacy code.

### 2. Co-exist

with the old application running alongside an ever-increasing number of microservices. The legacy and the newly built components must be functional for some time.

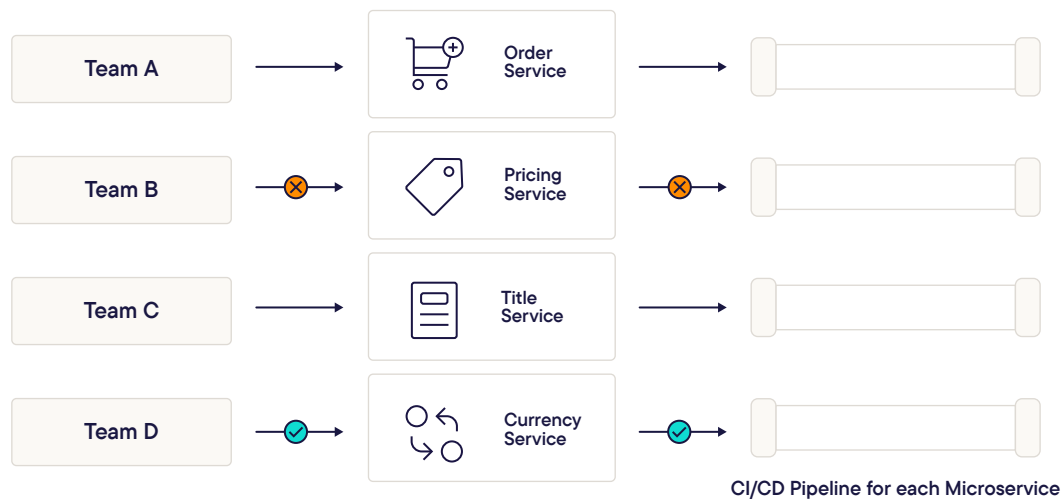
### 3. Eliminate

the old when the new services completely replace the old system by removing the legacy code.



When each of your applications has migrated away from the monolith, each microservice has its own data store and CI/CD pipeline.

### Microservices Deployments



commercetools' B2B customers have repeatedly chosen the strangler pattern instead of the big bang approach when migrating to composable commerce. This is because the microservices-based, API-first nature of the composable approach enables the incremental migration of components, as it reduces risk and sets up a virtuous cycle of release-win-learn-iterate. Also, you can create minimum viable products (MVPs) to establish a first base for what the rest of your commerce solution will look like — and optimize it over time.

## What's the big bang approach and when to choose it

The big bang approach is a more traditional method of system migrations designed to make the switch from the current system to a new one at a single point in time; the go-live.

While we usually recommend the strangler pattern, the big bang approach may be beneficial when migrating from notoriously difficult systems to break down into smaller pieces, such as Salesforce or SAP Commerce Cloud. If your company falls into this case, we recommend building everything from scratch and then proceeding with the switchover.

A common reason to consider a big bang is where an initiative cannot be delivered reasonably in your existing stack. An example would be a new product category, pricing strategy, bundling capability or another initiative that would be wasteful to build in existing systems that are being replaced. Pairing a soft launch of those new capabilities with a discrete set of customers to finish up “testing” can increase customer satisfaction and mitigate business concerns about a big bang approach.

While not explicitly a big bang, in B2B we see customers launch full site experience for anonymous customers while completing additional capabilities for existing or contract customers. This can add benefits, such as adding new capabilities to newer customers to potentially increase the frequency of purchase or your ability to convert them into contract customers.

## What are the main routes for your migration?

### **Route #1 Start with the product catalog or PIM (Product Information Management)**

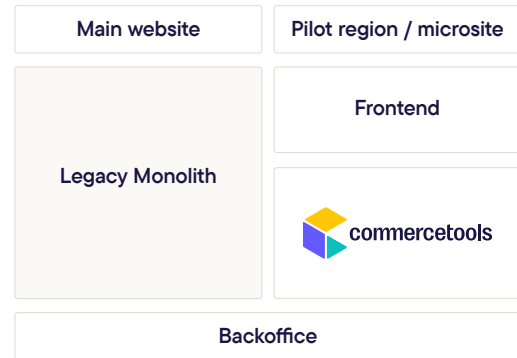
The easiest way to migrate to a composable architecture is to start with transitioning the product catalog or PIM — even more so if you're facing performance issues with a difficult-to-navigate product catalog hurting your bottom line. In this scenario, your product catalog/PIM on commercetools can connect via APIs with checkout and other functionalities on the monolithic platform without data discrepancies.

### **Route #2 Start with buying journeys or customer groups**

If you're having trouble converting first-time customers to contract customers, consider capabilities and site experience which are tailored to that customer base as an initial launch point. Newer customers are less complex from a buying perspective, but pay more attention to product discovery and search context. Getting those features right for a new customer demographic can yield long-term benefits with repeat buyers and long-time customers.

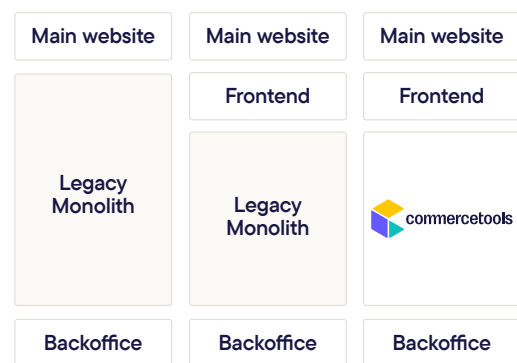
### Route #3 Start with a pilot project or MVP

Say your business has acquired new business units or expanded to a new geography, but these aren't yet integrated into the system due to the high costs of onboarding onto a monolithic infrastructure or prohibitive/negative ROI for smaller business units to justify such integration. In those cases, it is often easier to start with a composable approach from the get-go as a pilot project.



### Route #4 Start with the frontend (front-to-back)

Front-to-back is a technique used during application migration that starts by decoupling the frontend first and moving to true headless with a frontend solution. After that, you can create the API layer and tackle the backend migration. This gradual transition minimizes risk and downtime, plus provides immediate benefits in terms of customer engagement. This approach is recommended to companies with custom and/or legacy frontend solutions, such as SAP Spartacus.



### Route #5 Start with the “heart” of commerce: Checkout, powered by cart and order APIs

While implementing checkout as the starting point is usually more complex than a product catalog/PIM, many B2Bs have taken this route to accelerate time-to-value and ROI. Starting with checkout capabilities means securing the most critical part of the customer journey and building differentiation across all other customer touchpoints.



Learn how to use the strangler pattern to migrate your checkout in this [best practice guide](#).


# Steps to declutter, organize and migrate to composable commerce

“ Clutter obscures what’s most important. Discarding that which doesn’t support your ideal lifestyle creates space for treasured possessions to truly shine – and leaves room for future joy-sparking additions.


— Marie Kondo

While there is no set-in-stone process across all existing applications — third-party or homegrown — to commercetools, we provide a guideline to help you organize and streamline the cadence of your project.

 **Step 1:** Discovery and gap analysis

 **Step 2:** Build a migration roadmap

 **Step 3:** Data migration

 **Step 4:** Complete your best-of-breed ecosystem  
(incl. connecting your ERP with commercetools Composable Commerce)

 **Step 5:** Integrate the user experience layer

 **Step 6:** Test, deploy and improve continuously



## Before you get started...

*“Before [companies] can even think about utilizing their data, they need to make sure they have access to all their data. While tech teams get super excited to start using the flexible data model commercetools offers as quickly as possible, it’s important to first take a step back and spend some time assessing the data they have and consider how they can clean and enrich it, as well as creating strategies to leverage it better. It’s really important to do this in the beginning.”*

**Michael Scholz**, Vice President of Product and Customer Marketing, commercetools

When embarking on a migration assessment, it is essential to approach it from a holistic perspective. Rather than simply replicating past practices, this endeavor presents a valuable opportunity to think ambitiously and envision the long-term vision for the business. It involves contemplating the optimal functioning of the business, establishing a well-structured data setup and defining efficient processes. It is crucial to avoid duplicating quick fixes or workarounds employed in the previous commerce solution, as they might not align with the specific requirements of your business. The concept of "composable" emphasizes prioritizing business needs over the constraints imposed by a monolithic architecture and technological capabilities.

To provide an analogy, consider the process of moving houses. When transitioning to a larger house or apartment, it is possible to bring along all possessions from the previous, smaller place. However, it is more prudent to envision your dream home and then decide which elements of the old house should be retained and which areas should be completely reimaged. For instance, you may choose to transport your old bed while opting for a brand new kitchen with state-of-the-art appliances.

A recommended approach to commence the assessment is to identify the areas that cause the greatest business pain, ascertain the aspects customers frequently complain about, or recognize the most promising business opportunities. The specific needs of your business should dictate this evaluation. It necessitates a thorough reconsideration and reassessment of all operational aspects, paving the way for a comprehensive digital transformation tailored to your unique business.

## Step 1: Discovery and gap analysis

Get started by assessing the state of your current digital ecosystem, including the frontend user experience, backend functionality and third-party systems. Remember: Planning a migration offers the perfect chance to eliminate overhead and generally aim for a leaner solution — you don’t have to recreate what was done before but, instead, can take this opportunity to think outside of the box, designing a tailored solution for the unique needs of your business.

Make sure your analysis is focused on the business value every step of the way.

- **Audit and eliminate feature bloat.** Create a list of all processes, features and use cases, and find out what features are unused (or underused) that can be cut from the solution altogether.
- **Gap assessment.** Determine what gaps exist and decide what is 100% critical and/or urgent.
- **Prioritize.** Set priorities and edge cases, and decide what can be migrated immediately and what can wait — or dropped altogether.
- **Compare features.** Hold your prioritized list against the [features provided by commercetools](#). Identify the items where you can achieve your “ideal” state with the components we offer as standard. What’s left are your “gaps,” so you’ll need to decide how to address each individually. Here, you have three options:
  - **Out-of-the-box:** The desired feature is a standard commercetools feature that can be configured and customized to your specifications.
  - **Third party:** There are features and domains which are out of the commercetools scope, such as CMS or DXP. In these cases, you’ll need to integrate third-party services. This is where our [partner ecosystem](#) becomes an incredible resource you can tap into.
  - **Customizations and extensions:** These are functions and processes unique to your business that need to be custom-coded. Your developers can code these components or you can outsource this to partners with the expertise to build for you.
- **Define your migration method and starting point.** Based on your analysis, determine what is the best route for your team to start a replatforming project and how this will be accomplished (via the big bang or strangler pattern).

### What should you consider about processes and people in your migration?

A migration process is more than just technology, especially when you’re moving toward a new paradigm based on composability and microservices. Take this opportunity to:

- **Evaluate business processes.** Every process doesn’t need to be recreated, especially as most of them were dictated by a legacy platform. This is a good opportunity to rethink business processes, remove bottlenecks and workarounds.
- **Review your people organization.** With a migration to a microservices-based architecture, consider reorganizing horizontal teams — such as frontend specialists, backend developers and data scientists — with more cross-functional and vertical teams. [Here’s why it’s important and how to achieve it.](#)

## Step 2: Build a migration roadmap

After completing the discovery phase and envisioning the desired state of your business amidst limitless commerce possibilities, the next crucial step is to craft a comprehensive plan and roadmap to actualize this vision. This entails charting a strategic course towards your desired future, taking into account the steps required to bridge the gap between the present and the desired state. For this, we recommend applying an incremental innovation strategy, which refers to the gradual and iterative improvement or advancement of existing products, often aimed at enhancing efficiency, functionality or addressing specific business issues.

These are the three top areas as a baseline for your roadmap (not necessarily in this order):



**Data migration:** This step is an opportunity to reassess and redesign your business setup, discarding what doesn't add value and creating a flexible environment that supports your goals now and in the future. After carefully considering the specific circumstances of your business and the goals you aim to achieve, it is time to embark on the planning of migrating your critical data from other systems to the commercetools platform. For more, see step 3.



**Best-of-breed ecosystem:** Include all the custom extensions which need to be built or integrated via third-party services. For more, see step 4.



**UI/UX:** Because commercetools Composable Commerce is a headless backend solution, you can connect the frontend(s) of your choice and build customized customer experiences. For more, see step 5.

## Step 3: Data migration

Regardless of whether your migration starts with your product catalog/PIM, checkout or an alternative route, migrating your data comes first. Follow three steps:

- 1. Identify the data you intend to migrate.** Primary data types include product order and customer data, but may also encompass category taxonomy, graphical and multimedia, as well as marketing content that flesh out the customer experience.

### Is migrating historical orders to commercetools necessary?

It is not recommended to migrate all of your historical orders to commercetools. If the source of truth for your orders is another system, the data in commercetools is redundant. The recommendation is to migrate only the orders that are still in the return period or not migrate orders at all.

2. **Clean up your data prior to loading it into a new system.** Make sure that the data you don't need is discarded.
3. **Ensure structure compatibility.** The data structure should be tailored to eCommerce utility and according to our [Product Modeling Guide](#). We suggest prioritizing essential attributes, especially those crucial for search functionalities or specific features. Generative AI can significantly reduce the effort of mapping data to the commercetools format as you can generate the import format automatically and execute the script.
4. **Export/import.** Export product data from your ERP, spreadsheets, or other systems, and import it into commercetools.

### Data integration tools and APIs in commercetools Composable Commerce

- **Subscriptions API:** For event-driven integrations, you can subscribe to Messages for changes to resources in Composable Commerce. Check the [Subscriptions API](#) documentation.
- **Import API or Java Sync for bulk integrations:** When using the [Import API](#), monitor the container summary and operations for error detection and to confirm the process completion, especially before starting dependent processes. Alternatively, consider using tools like the [Java Sync Library](#).
- **Products, Inventory and Prices APIs:** When using the Composable Commerce APIs for integrations, design each [API Client](#) with the necessary permissions for its specific role. By having dedicated API Clients for each process, you can enhance security and prevent unnecessary permissions from being granted.

## Changing the data model

commercetools is based on a schemaless database logic, allowing for real-time updates to its structure, so you can change the data model in real-time using the Merchant Center or directly on the API level.

When beginning a project, it's important to consider which aspects of your products will map to Product Types, Products, Product Attributes and Product Variants. How you choose to define your products has an effect on store performance, load time, ease of product management and more.

Here's the terminology used by commercetools for each item (please note that there are two types of data modeling — product data modeling and general commerce data modeling):

Product Data Modeling	
<b>Entity</b>	Carries a specific type of information, such as “product” and “order.” Each object is described by its attributes.
<b>Product type</b>	Describes how the product is set up, e.g., whether it has a variant or not.
<b>Product</b>	A virtual “umbrella” product that presents information to the customer (“Screwdriver”). It’s not a buyable item, but its variants are.
<b>Variant</b>	The actual product a customer can buy (“Screwdriver flathead”).
<b>Attribute</b>	A product property, such as “material” or “color.”
<b>Attribute Value</b>	The value given by the property, such as “chrome vanadium steel” or “blue.”
<b>Attribute Set</b>	A collection of attributes suited to describe a specific product.

Here are the main concepts in commercetools data modeling:

Commerce Data Modeling	
<b>Business Units</b>	Map your business customers and divisions into the data model to align with sales operations and customer organizational structures. Set granular roles and permissions to reflect the buying process enabling order placement by business associates for Business Units within the Merchant Center. <a href="#">See how.</a>
<b>Company Specific Catalogs, Pricing and Discounts</b>	Utilize stores and channels to create company specific catalogs, pricing and discounts. By linking stores to Business Units you can define specific pricing and discounts through channels, and specific catalogs through product selections. <a href="#">See how.</a>
<b>Custom Types</b>	You can assign a Type as a data record when you want it to be of a specific subtype. For example, you could define a Screwdriver product subtype that captures the color (blue/red/black) and material (chrome-vanadium steel, metal). When creating products, you could then create a generic product, such as a Screwdriver flathead or a Screwdriver magnetic ratchet. You can apply this concept to other objects, including categories, customers, orders, etc. <a href="#">See how.</a>
<b>Custom Fields</b>	Extend existing objects when you don’t want to create subtypes. You can add any supported types of fields to existing objects. <a href="#">See how.</a>
<b>Custom Objects</b>	Arbitrary JSON-formatted records that are persisted indefinitely. They can be identified by a key or an ID and nested using the container attribute. Attributes of a custom object can reference other objects in commercetools, like an order or customer profile. <a href="#">See how.</a>
<b>Custom Views</b>	Extend the Merchant Center with Customer Views without creating a Custom Application. This feature allows you to perform quite a few use cases, including showing third-party data related to a Composable Commerce entity (like logs, memos or tracking information), and triggering actions related to a Composable Commerce entity (like re-indexing or customer password reset). <a href="#">See how</a>

## Step 4: Complete your best-of-breed ecosystem

After migrating the data and your first applications to a composable architecture, you can start the process of completing your best-of-breed ecosystem. In a composable environment, you're not locked-in with any particular vendor, so you have complete freedom to choose what services best match your needs.

As part of Step 1 in this guide, you should define and prioritize all custom extensions you need to build or buy to create a cohesive commerce infrastructure. This may include (but is not limited to) an ERP system, Order Management, Sales Tax, Payments, Marketing Automation, Personalization, CMS, Content Delivery Network (CDN), Search and Merchandising.

If you're using the strangler pattern, integrations and platform enhancements can be tackled one at a time. Integrations can remain within the legacy system until the business is ready to port a given third-party system (or connect a new provider) to the new platform; for example, this could be timed to the ending of a current contract or renewal deadline.

With a microservices-based and API-first approach, you can integrate the components you need, regardless if they're built in-house, sourced from best-of-breed vendors or a mix of both.

### System integration with eventing architecture

Nearly all of our customers have at least one system they need to integrate on the backend, such as receiving product data from a PIM or sending orders to an OMS. Our solution's eventing architecture makes integrations with commercetools more lightweight and loosely coupled. Also, our [Subscription](#) feature allows you to “subscribe” to events within the solution that may need to be communicated to other systems.

## Connecting your ERP and CPQ with commercetools Composable Commerce

Integrating a commerce solution, such as commercetools, with an ERP and/or CPQ system is often a central aspect of a commerce project.

When integrating commercetools with an ERP system, consider middleware to bridge the commerce platform and the ERP system, facilitating communication and data exchange. It plays a vital role in ensuring that the integration is seamless, efficient and reliable. Read our [ERP integration guide](#) to learn more.

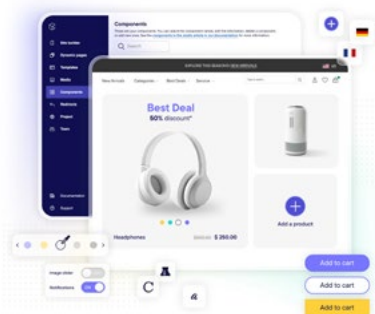
The integration of complex systems like SAP or Oracle Configure, Price, Quote (CPQ) with commercetools bridges the gap between traditional back-office operations and modern digital commerce. If you use a CPQ system to manage your pricing and quoting, check out our [CPQ integration guide](#).

## Step 5: Integrate the user experience layer

Working in tandem with your commerce backend functionalities is the **digital storefront**, where your customers will be able to search for, find, add to cart and check out the products they want. Your business can pull it off without complexity and high costs by using a Frontend-as-a-Service (FEaaS), which provides companies with the ability to develop individualized frontends without running into time-intensive projects.

A FEaaS provides optimal storefront delivery and orchestration with the commerce backend, so your business can develop storefronts faster and more reliably. Also, you don't have to worry about infrastructure aspects such as performance, speed and responsiveness, and can focus on crafting the customer experience.

### Why use commercetools Frontend



[commercetools Frontend](#) is a leading frontend-as-a-service (FEaaS) solution for businesses to develop, differentiate and deliver digital storefronts at lightning speed. Seamlessly integrated with commercetools Composable Commerce for B2B, this solution provides intuitive tools, workflows and pre-built component libraries to accelerate frontend development, out-of-the-box and SEO-friendly capabilities, and so much more.

To accelerate the development of outstanding storefronts at speed, manufacturers can tap into the [Store Launchpad for B2B Manufacturing](#), regardless of the size or complexity of their business. This ready-to-use store leverages pre-built frontend components seamlessly connected with commercetools Composable Commerce for B2B as the backend. Plus, this launchpad follows the latest UX and UI best practices, so you can launch digital storefronts aligned with buyer expectations from the get-go.

Learn how to [plan the migration of your storefront](#) with commercetools Frontend.

In a nutshell, you have the ultimate freedom and flexibility to choose one or a combination of the frontend approaches. For an up-to-date list of frontend and CMS vendors with productized integrations to commercetools, explore our [Integration Marketplace](#).

## Step 6: Test, deploy and improve continuously

It's time to unveil your new store! Here are the final steps to get your website up and running:

- Testing is a crucial step to identify compatibility issues and ensure data integrity. It's important to always keep track of user monitoring, analytics and performance metrics such as page load time, server response time and transaction processing time to identify areas that could be optimized, as well ensuring that any changes you're deploying don't adversely affect performance. You can follow this [demo flow](#) to see your commerce solution in action.
- Real-time monitoring tools are an invaluable investment as they help you identify issues instantly, like system crashes or slow page load times, so you can address them quickly. In addition, it's important to continuously analyze data like customer behavior, product performance, and sales data to identify trends and patterns that could be used to optimize performance over time. Check our [supported APM \(application performance monitoring\) options](#).
- Read our [go-live checklist](#) for additional information on your deployment.

Moving forward after your initial launch, it's key to seek continuous improvement, actively iterating, testing and monitoring to deliver the best experience for your customers. To achieve this, we also recommend having open communication with your customers, so your business can stay on top of expectations, creating innovations that cater to the people who matter the most.



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# Next steps

“ When you’ve finished putting your house in order, your life will change dramatically. Once you have experienced what it’s like to have a truly ordered house, you’ll feel your whole world brighten.

— Marie Kondo

In this migration guide, we showcased how B2B organizations can move away from a legacy commerce platform to commercetools Composable Commerce for B2B and Frontend, so your company can leverage the benefits of building and buying components to craft one-of-a-kind customer experiences. If this approach is right for your business, here’s how to get started:

- Explore the in-depth documentation of [commercetools Foundry Blueprint for B2B Manufacturing](#) and learn how to jumpstart your commerce project.
- Take advantage of our [free 60-day trial](#) to create your MVP or POC and get a glimpse of how commercetools Composable Commerce for B2B can work for you.
- Don’t hesitate to reach out to our team of commerce experts and [tell us about your business and goals](#) so we can advise on the best next steps for you. Alternatively, explore our [network of implementation partners](#), who are well-equipped to assist in planning and executing your digital vision.

# Continue exploring

If you'd like to learn more about composable commerce in the B2B space, keep reading the vast resources we have available for you.

## Blogs

- [B2B manufacturers prove it: Implementing composable commerce at speed with lean dev teams is becoming the rule, not the exception](#)
- [The hero's journey to composable: How B2B business leaders are adopting a customer-obsessed operating model to succeed](#)
- [What makes B2B buyers tick in digital commerce?](#)
- [Composable commerce for B2B 101: Everything you need to know in one place](#)
- [Composable commerce for B2B 101, Part 2: How complex and costly is it really?](#)
- [4 success stories that showcase how B2B leaders boost revenue streams](#)

## B2B customer stories



## White papers and booklets

- [Establishing your baseline: Assessing B2B digital maturity](#)
- [Accelerating your digital vision: Taking your strategy to the next level](#)
- [commercetools Composable Commerce for B2B: Feature Guide](#)
- [Pivotal Trends and Predictions in B2B Digital Commerce in 2024](#)

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# About commercetools

commercetools is the leading composable commerce platform, allowing companies to dynamically tailor and scale shopping experiences across markets. We equip some of the world's largest businesses with tools to future-proof digital offerings, reduce risks and costs, and build outstanding experiences that drive revenue growth.

Headquartered in Munich, commercetools has led a global renaissance in digital commerce by combining cloud-native, technology-agnostic, independent components into a unique system that addresses specific business needs. We empower brands — including Audi, Danone, Eurorail, NBCUniversal, Sephora and Volkswagen Group — to stay ahead of changing consumer and buyer behavior.

More information at [commercetools.com](https://commercetools.com).

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