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The Definitive Guide to

Making the Switch to Composable Commerce

Businesses have traditionally relied on either monolithic systems or homegrown solutions to power their online operations. Monolithic systems, characterized by their all-in-one approach, and homegrown solutions, tailored specifically to individual business needs, have long been the go-to choices for organizations seeking to establish their digital presence. However, as the demands of modern commerce continue to shift, a new paradigm is emerging: composable commerce platforms.

Composable commerce platforms represent a departure from the rigid structures of monolithic systems and the resource-intensive nature of homegrown solutions. These platforms offer a modular approach, allowing businesses to seamlessly integrate and orchestrate various best-of-breed components to create a tailored e-commerce ecosystem.

So, why are businesses making the switch to composable platforms? In essence, it boils down to adaptability, agility, and scalability. Composable commerce platforms empower businesses to respond rapidly to changing market dynamics, experiment with new technologies, and scale their operations efficiently.

In this guide, we'll explore the fundamental reasons behind the shift towards composable commerce platforms. From understanding the limitations of monolithic and homegrown systems to identifying the key advantages of composable architecture, we aim to equip businesses with the knowledge needed to navigate this transformative journey.

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The Downfall of Monolithic & Homegrown Commerce Solutions

In the early days of ecommerce, companies relied on monolithic systems — either bought from a vendor or built internally. Companies were attracted to the allure of an "all-in-one" solution, and this worked fine until two things happened: One, consumers started to expect more from their online shopping experiences. Second, companies grew tired of paying for functionality they don't need or use.

The primary advantage of monolithic platforms lies in their breadth of capabilities, giving them a suite of solutions in addition to an integrated front end. While this streamlined the process for non-technical users to quickly establish an online storefront, it also became its Achilles heel.

From a single vendor, companies could buy a suite of solutions, but too often many of the capabilities would go unused, or they didn't keep up with market innovation. Vendor lock-in made it difficult or costly to switch to alternative, best-of-breed solutions for features like search or inventory visibility.

Linking the front end with the back end imposes constraints on both technical and non-technical users alike. Monolithic systems restrict flexibility by tethering users to a single vendor's predetermined development environment and limiting them to standard use cases. Moreover, these systems swiftly become outdated, resulting in sluggish deployment of major upgrades and changes, which can incur exorbitant costs.

Another substantial downside arises from the coupling of the front end and back end: system upgrades and modifications can disrupt the functioning of your storefront or degrade its loading speed, impairing user experience and potentially leading to lost sales.

Moving away from a monolithic architecture isn't easy. These are usually systems that companies have had for several years and spent many dollars trying to build, re-build, and maintain. But as consumer shopping preferences evolve at a rapid pace, digital commerce leaders realized they need to move away from these systems if they want to remain competitive.

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The Rise of Composable Commerce Solutions

Tired of monolithic architecture that's difficult to update, costly to maintain, and hinders agility, companies started moving towards flexible and scalable commerce solutions. According to Emily Pfeiffer, Principal Analyst at Forrester, many companies swung in the direction of "DIY" commerce technology and piecing together several different solutions, which also meant building and maintain several different UIs.

In a webinar with Kibo, Pfeiffer said, "To add functionality as it comes out over time, it's very, very challenging. So, this puts the digital business in that position of playing software company."

Modern composable commerce solutions give companies a balance between the slow, clunky, monolithic systems and the "over composed," pieced together solutions. Composability, as defined by Gartner, means "creating a business made from interchangeable building blocks."

From an organizational perspective, composability allows each function of the business to work autonomously but in sync. As a result, everyday business users can easily manage the online store and technical users can focus on building better experiences — all while the company remains flexible and agile. At the same time, dependency on specialized IT roles decreases, making a composable platform easier to maintain long-term.

Key criteria of a composable platform:

▷ **Flexibility:** Choose a platform that allows you to cherry-pick modules or capabilities, avoiding the need for a complete system overhaul. For instance, you can start with basic catalog features from one vendor and seamlessly transition to a best-of-breed PIM from a third-party when needed.

▷ **Scalability:** Assess the platform's ability to handle increased traffic, expanding product catalogs, and the addition of new brands or global sites. Ensure it can scale both vertically (adding more resources to a single server) and horizontally (adding more servers) as your business grows, maintaining fast page load times during peak traffic periods.

▷ **Unified Interface:** A single user interface with shared data and reporting simplifies commerce and fulfillment operations, empowering both technical and non-technical users to work efficiently, enhance customer service, and adapt to changing demands.

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▷ **Extensibility:** Look for a solution with rich out-of-the-box functionality and comprehensive API coverage. This allows you to extend platform features without incurring significant development costs, ensuring a seamless frontend and backend integration.

▷ **Integrations:** Verify the platform's compatibility with various systems like CRM, marketing automation, or personalization engines. Ensure it facilitates real-time and accurate data flow through robust orchestrations, not just point-to-point connections.

▷ **Microservices-Based:** Opt for ecommerce and order management solutions with a microservices-based architecture, promoting reusability for future custom developments without disrupting the core code.

▷ **API-First:** Choose an API-first vendor with comprehensive API coverage and accessible documentation. This approach enhances productivity, scalability, and agility, ensuring adaptability as your business integrates new technologies.

▷ **Modularity:** Seek modular capabilities that reduce dependencies between services, allowing for phased implementations and platform maintenance without risking the entire solution's stability.

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Preparing For the Transition From Monolithic to Composable

Transitioning from a monolithic commerce platform to a composable commerce platform requires careful planning and execution to ensure a smooth migration while maximizing benefits. Here's a step-by-step guide on how a company can prepare for this transition before building out the migration plan:

1. Assessment of Current Infrastructure: Start by conducting a thorough assessment of your current monolithic commerce platform. Identify its strengths, weaknesses, and areas that need improvement. Understand the limitations and bottlenecks of the existing system.

4. Microservices Architecture Design: Plan the architecture of your new composable commerce platform based on a microservices approach. Break down the functionalities of your commerce platform into smaller, independent services that can be developed, deployed, and scaled independently.

2. Define Business Goals: Clearly define the business goals and objectives you aim to achieve with the transition to a composable commerce platform. These goals could include improving agility, scalability, or reducing time-to-market.

5. Identify Core Components: Identify the core components of your commerce platform that need to be modularized and decoupled. These components may include product catalog, inventory management, order processing, payment gateway, etc.

3. Research and Selection: Research various composable commerce platforms available in the market. Evaluate each platform based on factors such as flexibility, scalability, integration capabilities, support for microservices, and alignment with your business requirements.

6. API Strategy: Develop a comprehensive API strategy to enable seamless communication and integration between different microservices within your composable commerce platform. Ensure that APIs are well-documented, versioned, and adhere to industry standards.

By following these steps, you can effectively prepare for the transition from a monolithic commerce platform to a composable commerce platform, unlocking new opportunities for innovation, flexibility, and growth.

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Defining Your Roadmap for Migration

Composable methodology lives up to its promise with the value it gives to organizations of all sizes to build digital solutions according to their specific needs. It gives the ability to scale and to pivot with minimal impact to timelines. And, best of all, the time to value for new technology adoption is decreasing.

Certainly, a benefit of composable is that you have a wider range of tech to choose from—you can mix and match the puzzle pieces of your unique stack to get exactly what you want. But that can be difficult and time consuming. We hear from clients that the amount of decisions and the amount of stakeholders involved in each tech component is delaying their start on their composable journey.
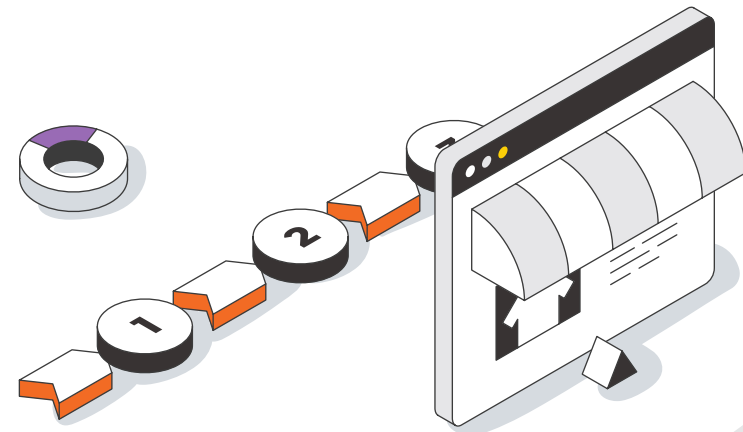
Our recommendation is to focus on a few key areas that should help you to determine your direction while also quickly getting stakeholder buy in. Start by asking some important questions:

By exploring these questions, you will get a picture of what pieces of a composable solution will deliver the most value—and this is where you should start.

Composable is a perfect fit for delivering tech in an agile manner. Using an MVP approach to build out the elements that will drive the most business value first works well to be able to prove the ROI and generates excitement and momentum.

Remember, though, that a roadmap includes a longer-term journey. It's about long-term vision and multiple milestones along the way. So, the roadmap needs to prove value at every milestone and also be flexible to build in time to assess your needs as you go.

▷ Is your platform nearing end of support?

▷ Does your platform limit how you sell?

▷ Is your platform and its capabilities defining how you run your business?

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Defining Your Tech Stack

In defining your roadmap, you will also need to consider the components of your tech stack. For most companies, this is a combination of licensed products as well as internally built systems. The tech selection process should be an opportunity to take a close look at what you already own, consider costs, and optimize.

In addition to looking at adding new tech, ask yourself the following questions:

▷   What can you streamline?

▷   Do you have an overlap of functionality with your current tech stack components?

▷   Do you have components that are not (and will not) be used to their full potential or license cost?

▷   Do you have tech (especially legacy) that no one in your current org knows well or can support?

▷   What 3rd party plug-ins might be replaced with another solution?

▷   What integration points do you have and how easy are those integrations to manage?

▷   Is any of your tech stack costly to host and/or monitor?

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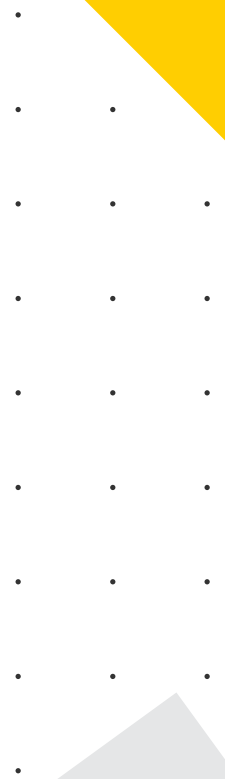
Resource Planning to Ensure Successful Adoption

Understanding and selecting what tech is part of your composable plan should also include consideration of what you need as a company to ensure successful adoption. If you are investing in digital modernization with composable, the implementation of the tech is just the start of where your value will come from.

Creating a roadmap that includes time for your development, operations, and marketing teams to get comfortable and learn the new structure and systems will have a positive effect on the success of your transformation. Consider working with a partner to implement elements of your solution in a blended team structure. This allows internal teams who are learning the new system to benefit from being hands on while also benefiting from the expertise of implementers who have delivered the technology multiple times before.

While composable solutions can be delivered much faster than their monolithic predecessors, it is important to not rush your internal teams in their learning the new systems. Luckily, composable solutions give the ability to train much earlier in the project. We would recommend that you give your teams as much time as possible during the build process to be hands on so that when the site launches, they feel confident and excited to leverage the modernized system.

Give more time than you think people need. Normal projects run into bumps—and fostering a culture of learning, exploring, and experimenting will go a long way—not just for the initial implementation but also for the ongoing excitement and success of composable.

Risk Assessment and Migration Strategies

If your team has done a thoughtful and thorough job of crafting your roadmap, tech selection, and resource planning, you will naturally identify areas of risk in those discussions.

A move to composable can also mean the need for modern development skillsets if you have in-house dev teams. In XCentium's experience, we are seeing that composable modernization brings excitement and inspiration to in-house development teams when they are equipped with the support from an experience partner. Adding an implementation partner reduces risk and equips internal teams to be able to effectively support and enhance the new solution and builds momentum.

GenAI can be leveraged to migrate both component functionality and content. XCentium has used GenAI to reduce composable website delivery time and cost—without compromising quality.

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Risk considerations:

▷ What are the downstream effects of a tech change on your business?

▷ Where can you use GenAI to reduce the level of effort of a migration?

▷ What internal skillset(s) does your current team need to be successful with the new tech?

▷ Is there existing tech debt that can be addressed/corrected during the project?

▷ Working with a partner will help you to get the value of your composable investment sooner

▷ Your partner can help your team strategize beyond the implementation itself and consult on next steps and opportunities they should be thinking about

▷ Your SI partner should ideally be able to help you navigate your relationship with multiple platform partners and advocate for your success

▷ Consider a partner who offers a range of digital services like UX/UI Design, Marketing and Digital Strategy, and Managed Services

Working With an SI

Even if your team is well-equipped to deliver your modernized composable solution, you may still benefit from including an SI in your project:

▷ Mitigate risk by working with a partner who likely knows about (and has solved for) the challenges an implementation will face

▷ Take advantage of a partner's experience across industries to bring new ideas to the table

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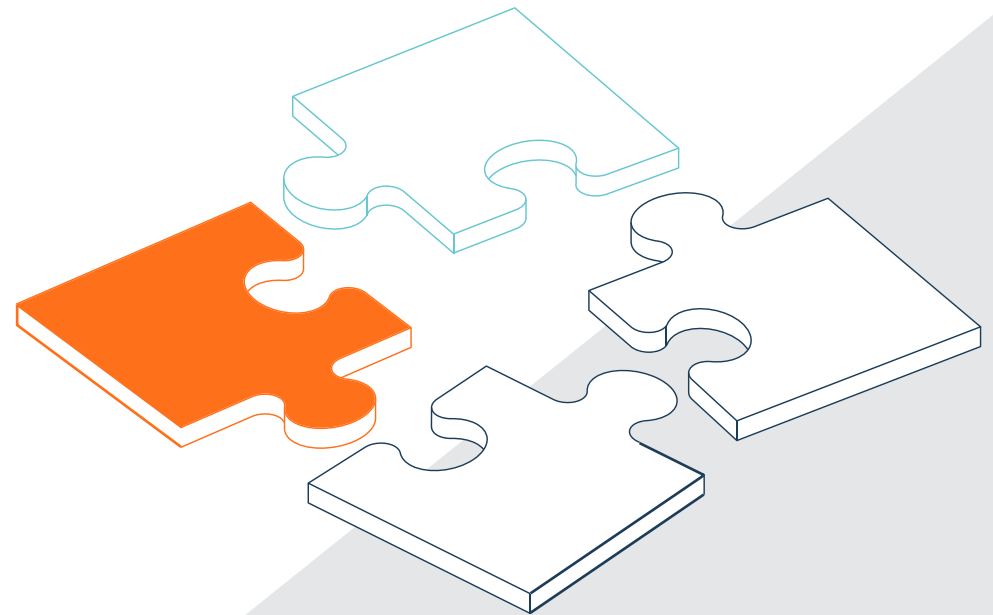
Implementation Phase

Data Migration and Integration

Put a heavy focus on data and data integration first and foremost. Having clean, usable data is the foundation of any successful website implementation. Working on creating the necessary integration connection points should be one of the first steps of your transition to a composable architecture.

Customization and Configuration

Customizations and enhancements can severely alter a project's scope if requirements aren't initially clearly defined or decisions are changed later on. Try to minimize scope creep by defining what is necessary to customize and what can remain out-of-the-box from your platform. Some customizations may be determined that they need more information or can be pushed to a later phase.

Customizations can sometimes create a barrier for scalability. If you are working with an SI, discuss the amount of effort involved and the long-term implications of customizing.

However, an API-first commerce platform will simplify customizations by enabling developers to easily integrate third-party services and customize specific components without affecting the rest of the system. With clear documentation and standardized protocols, developers find it easier to understand and collaborate on customization efforts, ensuring the platform remains adaptable to evolving business needs and technological advancements.

Testing and QA

Testing and QA is a crucial step to a successful web implementation and shouldn't be relied upon by a single party. Both you and your SI should identify all areas that need to be tested and agree on which parties are responsible for signing off on certain aspects of the project.

Moreover, this phase presents an invaluable opportunity to acquaint oneself with emerging technologies and guarantee their seamless integration.

Training and Change Management initiatives further reinforce this process, providing a platform to dismantle existing silos and foster better-connected systems. This not only enhances operational efficiencies but also promotes a culture of continuous improvement.

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Post Implementation

Monitoring and Optimization

Monitoring traffic and analyzing user interaction on your website is extremely valuable (and free) information to your business. Discover and analyze how users get to your site, interact with it, and leave it.

Platform Use Feedback and Improvements

Especially during the first few months of go-live it's important to listen to your website's users and gather feedback. Given the feedback, determine what should be the most pressing next steps to alter or enhance your website.

Continue to listen to your website users and let your site grow and adapt not only with changing technologies but the way users interact on the web.

Scaling and Future-Proofing

Composability makes scaling easier by nature. Be on the lookout for new composable technologies that could be beneficial to your business.

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Conclusion

The limitations of monolithic systems and the challenges inherent in homegrown solutions have paved the way for a new era of commerce architecture, characterized by modularity and flexibility.

Looking ahead, the future of ecommerce lies in the hands of those who embrace change and leverage the power of composable commerce to stay ahead of the curve. By adopting a modular approach, businesses can unlock new possibilities, experiment with emerging technologies, and deliver unparalleled customer experiences.

As you embark on your journey towards composable commerce, remember that it's not just about the technology—it's about fostering a culture of innovation and adaptability within your organization. By staying open to new ideas and embracing a mindset of continuous improvement, you'll be well-positioned to thrive in the dynamic landscape of modern commerce.

About Kibo

Kibo Commerce is a composable digital commerce platform for retailers, manufacturers, distributors, and wholesalers who want to simplify the complexity in their businesses and deliver modern customer experiences. We are the only modular commerce platform supporting experiences that span Order Management, eCommerce, and Subscriptions. Companies like Zwilling, Ace Hardware, Boscov's, Nivel, and REEDS Jewelers trust Kibo to bring simplicity and sophistication to commerce operations and exceed customer expectations.

About XCentium

Founded in 2011 on the principles of delivering value via a senior delivery model, XCentium has quickly built a reputation for smart, thoughtful, and friendly digital experts. We believe in delivering superior digital solutions that help our clients stay ahead of their competition.

XCentium is a full-service digital consultancy with proven expertise in eCommerce, Digital Transformation, Digital Strategy, UX/UI, and Managed Services, partnering with best-in-industry technologies. XCentium is a Kibo Partner, Optimizely Gold Partner, Salesforce Silver Partner, Kontent.ai Premium Partner, Microsoft Gold Partner, and Sitecore Platinum Partner.

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