Quick Answer: What Are the Steps to Prepare for Composable Commerce?

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Composable commerce is a long-term goal for organizations seeking to shift to an architecture that will enable business agility. This quick answer provides guidance to applications and software engineering leaders on how to best prepare for composability.

Quick Answer

How can I prepare for composable commerce?

- **Step one** — go API-first ("headless") with a decoupled experience layer
- **Step two** — embrace a modular approach to digital commerce technology
- **Step three** — simplify commerce experience composition for the business user
- **Step four** — prepare to compose the core commerce application

More Detail

Gartner’s view is that future businesses will be composable in both business function and technology. Digital commerce as a composable application is a long-term strategy: an ongoing shift, with a five to 10 year horizon to mainstream acceptance. Some digitally advanced organizations are already taking these steps, and some vendors are leading the way.

**Step one: go API-first ("headless") with a decoupled experience layer.**

**Step two: embrace a modular approach to digital commerce technology.**

Step one is well underway in the industry and many of our more digitally mature clients have embraced step two to some level. The first step is achieved via "headless," experience-driven or API-first commerce, driving as many touchpoints as required.
Take step two by exploiting the rise of modular commerce platforms and ecosystem solutions. For more on API-first and modular commerce see Choose the Right Digital Commerce Platform Architecture.

However, to truly meet the ideal state of composable commerce, you will need to take two, more challenging steps:

**Step three: simplify commerce experience composition for the business user.**

Alongside the sheer competitiveness of digital commerce, a major reason why this sector is an early adopter of composability is that the customer-facing “application” (i.e., commerce websites and mobile apps) can be composed at the user interface (UI), “natively” or in a web browser. It looks like a single application to the customer, even if the elements on the “pages” come together at the client side from several discrete APIs, sourced from one or more vendors.

Composing these commerce experiences today is a pro-code task: it's for vendors and/or organizations’ development and DevOps teams, especially API-skilled, front-end developers and technologies such as Jamstack, NGINX, Node.js, Next.js, React, Vue, the cloud runtimes and content delivery networks (CDNs). However, for a platform to adhere to our ideal state of composable technologies, the composition must be low- or no-code, so that a business user can compose the application suite and the digital experiences as required.

**Look toward the maturing of low-code and no-code tools for enabling the business user to compose experiences.**

We are seeing the emergence of presentation composition tools. Today, you have several choices:

- From digital commerce platform vendors, including VTEX with VTEX IO and Adobe with PWA Studio
- From the DXP space with vendors such as Coremedia, Magnolia and e-Spirit (Crownpeak)
- From the headless CMS space with vendors including Amplience, Contentful and Contentstack
In 2021 there is a clear gap for a low-code application development platform (LCAP) or multiexperience development platform (MXDP) vendor to enter this space with commerce-specific tooling. For more on choosing the right approach for managing experiences see Composable Commerce Must Be Adopted for the Future of Applications.

Step four: prepare to compose the core commerce application.

Today, Gartner sees plenty of real-world examples where the decomposition of digital commerce platforms is at the level shown in Figure 1.

Figure 1. A Simplified and Idealized View of a Modular, API-First Commerce Experience

However, the benefits of true composability come at a finer level of granularity of capability. How realistic today is the composability of the platform shown in Figure 2?
The answer is — not very!

For step three, you compose commerce experiences. For step four, you will prepare to compose commerce applications. While the former is underway, the latter remains nascent.
What we traditionally see as the “commerce application” will be decomposed into multiple packaged business capabilities (PBCs), the entity that lies at the heart of composable technology (see Innovation Insight for Packaged Business Capabilities and Their Role in the Future Composable Enterprise). In this, the future is already here, just unevenly distributed across the vendor landscape. Traditionally, functions such as cart, check-out, product, promotions etc., share considerable data, maintain a state and are traditionally linked entities in an underlying relational database. This fundamentally breaks the definition of a PBC (it must own its own data and be independently deployable). Some commerce vendors have already achieved a higher level of decomposition, while others are already “modular monoliths” and may follow. Simultaneously, we are noticing specialist vendors already providing elements of this core composability, such as “promotions as a service,” “check-out as a service” and “product detail pages as a service.” “Shoppable media” is an extension of this. In the world of seamless multiexperiences, these capabilities can be used in different contexts outside a traditional digital commerce customer journey.

You can begin the journey toward core composability by selecting vendors who sell a truly modular digital commerce platform. These are best placed to take future steps and will already provide many of the composable commerce business agility advantages. If completely replatforming is not a current option, the elements described above are already available on the market. However, integration into a digital commerce platform will require either an existing productized integration or customization. We predict that a future step five will be the adoption of application composition technologies (ACT).

A note on the “size” of PBCs: PBCs are not one-size-fits-all, this is why Gartner does not often use the word “microservices” in this context. PBC size and complexity can vary depending on the appropriate level of technical granularity, an approach we call “multigrained” services within a mesh app and service architecture (MASA) (see Adopt a Mesh App and Service Architecture to Power Your Digital Business). A PBC can, of course, be constructed using a microservices architecture. For more on modularity and microservices in digital commerce see Apply the Principles Behind the Future of Applications to Digital Commerce.

The emergence of application composition technologies for the back end.
Gartner defines the architecture of composability as requiring three key features: autonomy, orchestration and discovery (for more on this, see Quick Answer: What Does It Mean to Be ‘Composable’?). While each commerce platform vendor might aim for delivering application modules or nascent PBCs with these features internally, there are no rules for external interoperability, no standard, no agreed formats beyond the constructs of APIs, Webhooks and events. True composability will therefore take some time to mature and is a longer play, but the benefits of agility and flexibility of the modular approach are to be had along the way. It also has the potential to revolutionize architecture not just in commerce but across the enterprise. For more detail on the emerging ACT see Innovation Insight for Application Composition Technology.

Recommended by the Authors

Innovation Insight for Application Composition Technology

Composable Commerce Must Be Adopted for the Future of Applications

Innovation Insight for Composable Modularity of Packaged Business Capabilities

Hype Cycle for Digital Commerce, 2021

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