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SAP Commerce Cloud

Winning in B2B Commerce

Technology, Architecture, People, and Processes

Technology and Architecture – What's best for your organization?

As you prepare to transform your commerce business, you'll have to address three key areas. The choices you make will determine your ability to drive short- and long-term growth as an innovative digital enterprise.

To ensure a successful outcome, you'll need to:

- Clearly define your business requirements
- Determine an appropriate architectural structure for your systems
- Align your people and processes to reflect where you are today and what you aspire to become in the near and distant future

In this document, we'll define the most common options employed today as well as the possible limitations of each, discuss organizational and process considerations, and prepare you for long-term success as you transform your business.

WHAT'S IN A NAME?

Buzzwords abound in the world of e-commerce, particularly when it comes to new architectural models like headless, composable, and MACH (Microservices-based, API-first, Cloud-native, and Headless). Navigating these, and understanding the finer points of differentiation among them, can be confusing.

As API-first, open architecture approaches to the front office technology stack grow in popularity, many CRM and e-commerce stakeholders are asking: "Which commerce approach is right for my business? Should I use a headless or composable architecture? Does a single- or multi-tenant environment make more sense?" But in our experience, better questions to ask are: "What do I actually need to meet my business requirements now? What kind of experience can we deliver to meet and exceed customers' constantly changing expectations? What should I plan next to grow my business, both near- and long-term?"

Many businesses become convinced new e-commerce technologies are turnkey engines of business agility, allowing new capabilities to be added or changed out like Lego® bricks. However, once solutions are selected and implementation projects begin in earnest, many businesses encounter two primary unforeseen factors: First, a new e-commerce tool may solve many functional gaps in customer-facing digital channels, but there is still a vast array of capabilities it can't provide, meaning new applications may need to be licensed, and existing technologies integrated and maintained to achieve a minimum viable solution.

Second, the business may lack the level of digital maturity to effectively deploy and manage the new solution; many additional UX, DevOps, and IT resources may be needed to manage it – whether hired or outsourced to an integration partner.

To avoid further confusion and begin unpacking the pros and cons of adopting a new type of platform architecture, let's look at a brief history of how we got here.

HOW IT STARTED

A decade ago, most e-commerce platforms were architecturally monolithic and largely deployed on premises. The best did a good job of providing most of the capabilities needed to deliver a solid digital commerce experience to end customers, but also typically:

- Involved lengthy implementation cycles
- Were relatively difficult and costly to customize, extend, and maintain
- Required significant up-front capital expenditure
- Were frequently "hardwired" to back end processes

As long as nothing changed, these worked well. But, as the e-commerce market matured, and consumers and business buyers began changing their shopping and buying habits to reflect their increasing preference for digital channels – and the ubiquity of smart, mobile devices in their daily lives – the e-commerce software industry pivoted in turn.

Noting the massive success of hyperscale marketplaces like Amazon, eBay, and Walmart, and wanting to increase their own businesses' agility, some mature companies began asking their systems integration (SI) partners to "rip off the head" of their existing commerce platforms. The goal was to decouple the legacy monolithic commerce platform model into independent front- and back-end layers that communicate through API calls, and provide a more convenient, engaging, and transparent commerce experience to customers, while also helping the business more easily adapt to changing market conditions and business requirements.

This "headless" approach enabled companies to continuously evolve the front-end presentation layer of the platform without needing to alter the back end, operational layer for each new change. They were then free to optimize the customer experience by adding new, in-demand capabilities – personalization engines or artificial intelligence/machine learning (AI/ML) automation, for example – all without affecting the core platform. Similarly, integrations for supply chain and inventory management, payments, customer service, and other core business functions could be added or swapped without directly affecting the presentation layer. Of course, this required having plenty of developers available to manage ongoing integrations and maintenance.

HOW IT'S GOING

While headless architecture enabled more business flexibility, there can still be limitations, whether from the platform's core capabilities or the level of integration required due to an organization's level of digital maturity and resources. As more companies began embracing this concept, it eventually evolved into "composable commerce", a term coined by Gartner, that involves combining best-of-breed e-commerce components across a range of categories (see Figure 1) to build a custom solution designed exclusively to meet specific business requirements.

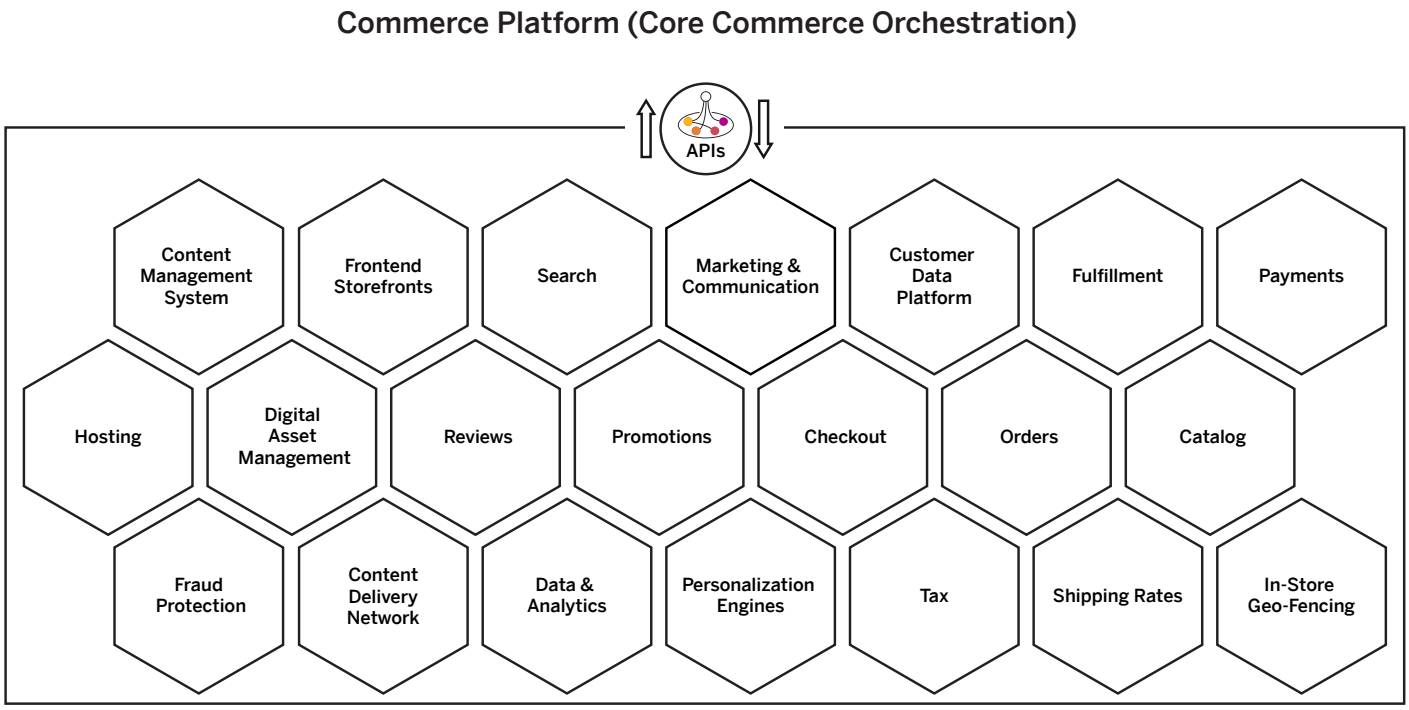


Figure 1: Packaged Business Capability (PBC) categories

With an underlying commerce platform as the foundation, the goal of a composable architecture is to allow the business to decentralize these applications and build a best-in-breed suite of capabilities for the customer-facing, presentational commerce layer to call on-demand. This not only solves core functional gap issues but also frees the business from having to address its own lack of maturity in order to take advantage of a headless, open API architecture.

Done correctly, this approach means fewer vendor contracts to sign, less development and integration outlay, and more flexibility to choose appropriate solutions for each functional area as technologies and market conditions evolve.

SCANNING THE ARCHITECTURAL LANDSCAPE

While the pandemic accelerated the move to a digital-first model across the B2B marketplace, every business is unique. There is no "one size fits all" approach to what a "perfect" commerce ecosystem looks like. There are, however, some commonalities that provide a useful framework.

For example, these are typical steps along the way to sustainable digital transformation:

1. **Monolithic architecture**: The initial implementation of a digital commerce platform
2. **Intermediate evolution**: Either adding a content management system (CMS) to the platform or decoupling the "glass" presentation layer to enable API integrations, depending on the primary focus and trajectory for the business
3. **Advanced architecture**: Adding best-of-breed solutions to address each core business priority
4. **Headless architecture**: Decoupling the front- and back-end layers, with a mediation layer made up of these best-of-breed solutions
5. **Composable + microservices**: A suite of independent, purpose-built components that communicate through a well-defined interface using lightweight, RESTful APIs

Advancing Commerce Architecture

A purpose-built approach to allow for an agile transformation throughout the journey

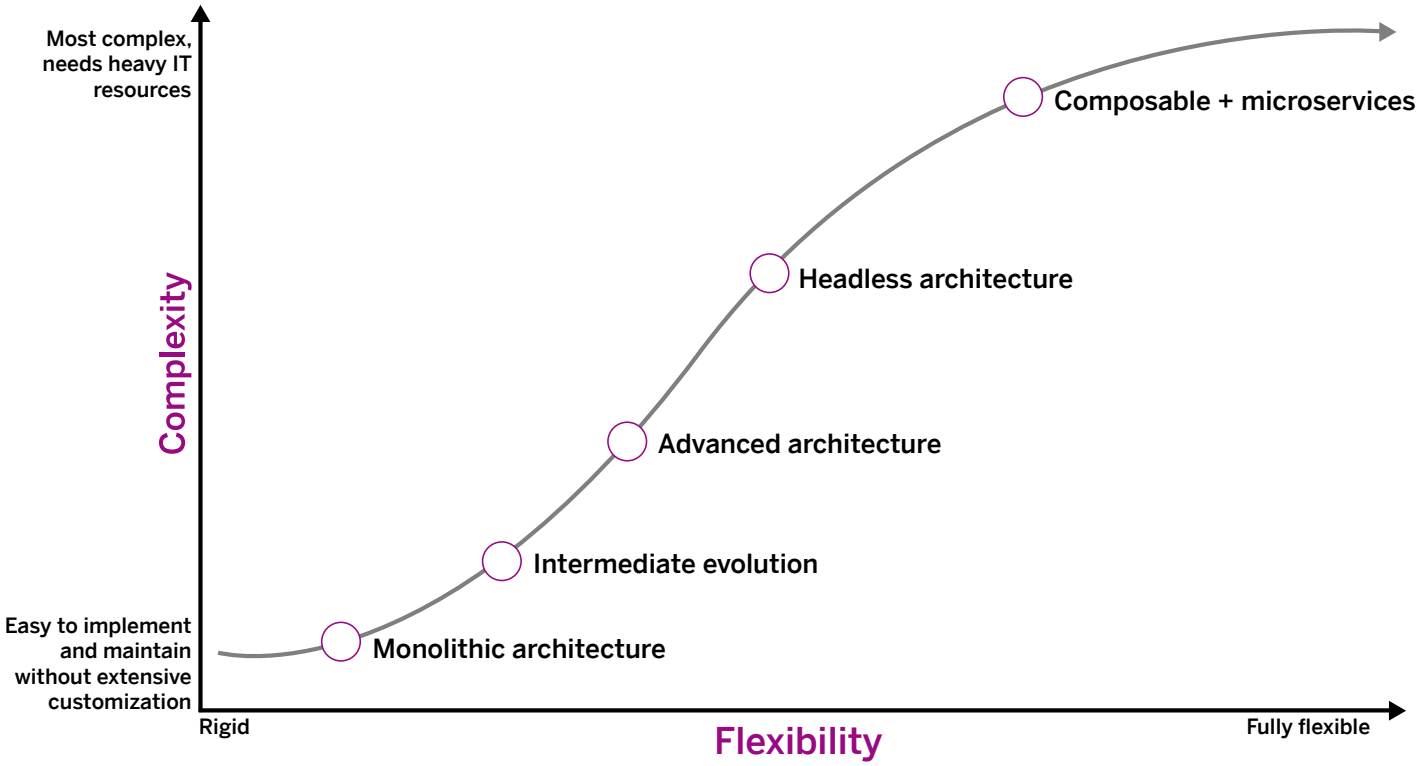


Figure 2. Commerce framework for digital transformation.

Your business' readiness for moving from a legacy monolith to a headless or composable architecture depends on your relative position along this path. To drive long-term, sustainable success, you must first establish a solid foundation that can support maximum flexibility and innovation, while still allowing your business to scale and grow at the pace of your market and your customers.

OTHER CONSIDERATIONS

Along this path, of course, you will be faced with various choices for solutions that address the needs of your specific business model, industry, active market regions, and so on, and the relative weighting of each can vary widely. For example, configuration, pricing, and quotation (CPQ) technologies and automated customer service might be needed relatively early in an automotive project, whereas a large wholesale marketplace initiative might place the highest priority on choosing the best order management and product information management (PIM) solutions.

Also, in today's fast-paced, always-on marketplace, where endless choice abounds, you simply cannot afford to underestimate the value of easy, seamless access, and earning and maintaining the trust of your customers.

So, whatever the current stage of your commerce solution, it should include a well-integrated and mature customer identity and access management (CIAM) solution. This essential technology is vital for:

- Making customer access easy and secure
- Helping you deliver a consistent and seamless experience across devices and touch points
- Building trust with customers and protecting the business from risk by addressing regional data protection and privacy regulations

THE RIGHT PARTNERS MATTER

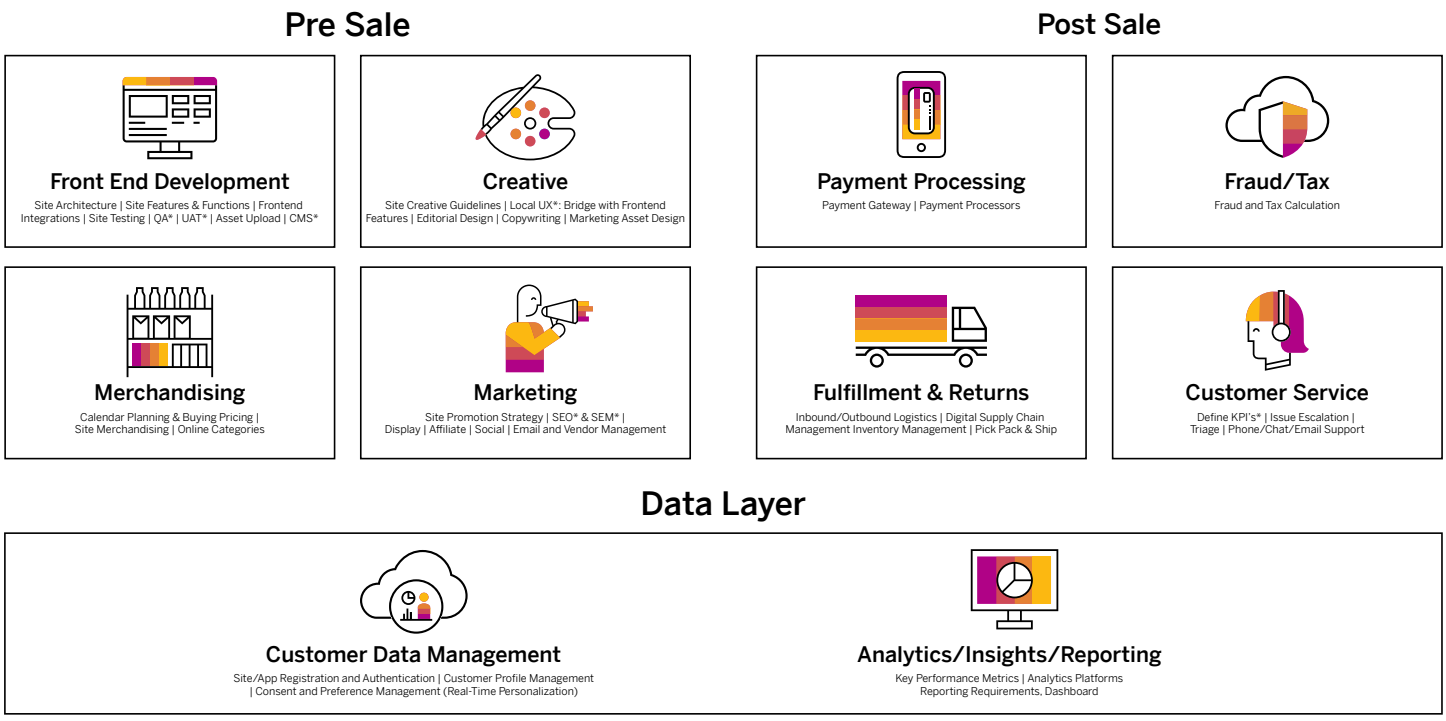
When it comes to digital transformation, it's important to take your next steps in the right sequence. This means that, wherever your organization is on its journey, you should base your decisions not only on the latest and greatest technology, but also on your current and aspirational business goals – with an eye towards continual improvement over time. While a maximally agile, "composable" system may be the final goal, a "crawl, walk, run" mindset is generally the best way to get there.

The right technology partners can help you right size your expectations and accelerate your business' transformation, so choose wisely.

People and Processes: Is Your Organization Ready to Transform?

To assess readiness, the initial question you need to answer is who will drive the project? Is it the marketing department, a commerce engineer, IT, or a cross-functional team? The reality is that ownership of commerce typically spans departments and functions. For B2B organizations in particular, processes like order management, inventory, fulfillment, and payments are owned by separate back-office groups within the enterprise, and this may be the case for front-office processes too.

E-Commerce Spans Multiple Departments and Functions



*QA = Quality Assurance; UAT = User Acceptance Testing; CMS = Content Management System; UX = User Experience; SEO = Search Engine Optimization; SEM = Search Engine Management; KPIs = Key Performance Indicators

Commerce, then, is no longer a single product to be purchased by a single manager, but a set of packages with different stakeholders for each, purchased by a combination of teams. Because of this, during many implementations, key organizational gaps are discovered when customization is needed, but the resources and technologies required to ameliorate those gaps are outside of the scope of the project.

This challenge becomes even more probable for complex initiatives such as launching a D2C channel, building a marketplace, initiating a subscription selling model, or adding additional third-party services into the mix for payments, fulfillment, customer service, and so on.

It's crucial, then, to determine who owns the overall commerce solution while ensuring all stakeholders can collaborate effectively to drive a successful implementation, and, as mentioned earlier, that your teams can effectively integrate and manage external solutions in the long term.

E-COMMERCE IS A TEAM SPORT – DON'T GO IT ALONE

When planning for a large e-commerce project, it's vital to take a step-wise approach. Start with defining your overall strategy and communicate it internally to all relevant stakeholders. This will help the more tactical elements of budgeting and resourcing fall naturally into place, and ensure everyone involved understands the plan and feels a level of ownership and accountability.

Establish your major goals, KPIs, and overall roadmap, and review them every three to six months. Decide who will take the lead on the commerce team, whether a well-qualified existing member of your management team, or a new, specialized full-time manager or director. Make sure all parties are aligned with this leadership structure.

Finally, a commitment to e-commerce success should be reflected in your organization's structure and culture. Many companies initiating omnichannel digital commerce make the mistake of designating existing resources to manage the complexities of this new business model. Instead, either dedicate qualified internal resources or hire new specialists to run your ground game, and ensure your organization can be scaled as business volume and complexity grow.

We hope the information in this e-book has provided some valuable insights to help you on your transformation journey. Want to learn more? Check out our other recent e-book:
"**Winning in B2B Commerce: Preparing Your Business for a Bright Digital Future**"

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