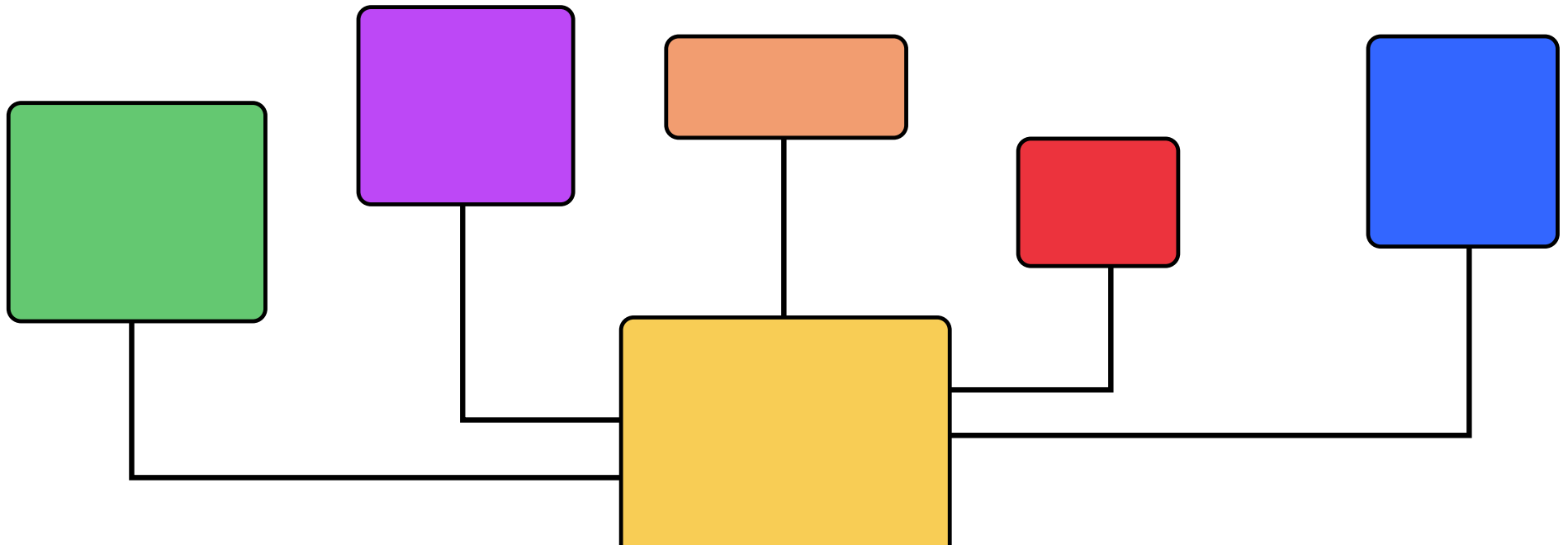


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Should your next digital commerce setup be headless?

By Klaus Colding



The need for speed

Being fast, agile and flexible is often characterized as winning traits within ecommerce. And for good reason, too, since customer's demands are increasing rapidly along with the number of channels available.

This requires businesses to be able to react, optimize and deploy highly relevant customer experiences going all the way from blazing-fast mobile speed to the ability to purchase via voice or visual search. This, however, is easier said than done and in order to succeed, businesses need to have both the organizational as well as the technical structure that allows for speed and agility.

Today, many ecommerce businesses are still relying on a centralized structure with experts organized around technology tiers. A backend developer might work on the checkout one week and on product filters another - all within the same full-stack ecommerce setup. Such a jack-of-all-trades approach usually does not allow for the best solutions and often gives way to mediocrity. Also, if a project requires the involvement of experts across several technology tiers, the result is often an unmanageable communication overhead. This is why many companies are now rethinking both their team structure and ecommerce architecture in order to respond to the changing market needs with speed and flexibility.

In this paper we'll cover:

- ✓ The challenges monolithic platforms face in a fast-paced digital world
- ✓ What microservice is, and why the biggest tech companies have been using them for years
- ✓ Why digital maturity should be the guiding light in your plans for digital development
- ✓ What are the steps you should consider before pursuing headless ecommerce

Monolithic bottlenecks

During the last 5 years, the focus on mobile commerce, social commerce, data analytics, and marketing tech stacks has grown dramatically. Companies now acknowledge that traditional monolithic ecommerce platforms are lagging in flexibility and UI innovation to meet customer and business needs.

This means many ecommerce businesses are now facing difficulties with scaling and expanding due to having both frontend, backend and business logic tied in the same monolithic platform.

What kind of business challenges do we often see, as a consequence of centralized monolithic ecommerce software?

1. Entering new markets and scaling for growing SKUs, traffic, and conversions
2. Enabling multi-channel delivery of content across smartphones, wearables, in-store solutions or IoT devices
3. Enabling a well designed user experience with a shared data foundation across channels
4. Adapting to emerging digital commerce trends such as guides, product configurators or visual search

Modular, decoupled, headless, API first or microservice? Wow...

So, what is the new way going forward, when you can no longer bet on one large block of centralized software to run your entire ecommerce business? Where can you look for inspiration?

Companies such as Amazon, eBay, Netflix, and Google have relied on an architectural principle called Microservices for a long time already. These services are individually developed, deployed and managed and communicate via APIs. This allows companies to break down capabilities into individual, autonomous services called microservices or decoupled services.

The decoupled approach allows teams to work interdependently on different functionality without having to understand the entire systems' logic.

Imagine one team is working on a new commerce App while another is working on improving filters on a category page. Because the teams are leveraging modern APIs, they can simultaneously work on both projects, without the risk of jeopardizing the ecommerce platform.

With an API-first approach, a lot of code can be reused on different projects. This could be a development team that wants to build an in-store ecommerce experience on top of a typical web ecommerce storefront. In this case, they would not have to start from scratch, because they can reuse the foundation for checkout, managing orders, product data, etc. This approach stands in stark contrast to having one monolithic application that contains all business logic, while also being responsible for presenting the frontend. This would create large restrictions and difficulties when wanting to present the best customer experiences through customized design and UX on different devices or sales channels.

You digital maturity should determine your next step

There are many levels of how you can decouple your commerce set up and there is not a one size fits all solution. Some refer to this process as a modular approach or headless and others call it microservice-based or decoupled.

In our opinion, the most important element within this movement is leveraging well-designed APIs that optimizes the speed and liberty of deployment, as it decouples the presentation layer from the transaction and business logic, thus minimizing the effort, time, and cost we often see in full commerce platforms.








Before organizations dive into the headless buzz, it's important to evaluate one's digital maturity, as this approach is not for everyone. In fact, most ecommerce companies barely know where to start when they look at their own current architecture. Forrester's 2020 new tech reports for both B2B and B2C, researched over 30 commerce vendors and found that more than one-fourth of them offer



solutions only fit for digitally advanced clients (such as headless or microservice-based). But a staggering 84% of firms are at a beginner or intermediate level of digital maturity. That makes them the norm, and while there's incredible potential for advancements, Forrester recommends companies to buy only what they can use - or their situation will only worsen.

This implies smaller and less advanced companies should stick with a classic ecommerce suite - one that solves most needs in 1 suite. This could be options like Shopify or Wordpress Woocommerce.

More advanced companies, but still at the intermediate level, should pursue platforms that allow for more freedom and headless options. This could be platforms like BigCommerce where you have options of both using headless commerce but also access to a more traditional suite based feature pack. This approach can get you going fast while not losing flexibility to adapt your commerce needs going forward.

In general, Forrester recommends the following approach to evaluating your next ecommerce platform needs:

Platform-type options	Beginner	Intermediate	Advanced
Commerce suites			
Commerce platforms			
Commerce components			

 **Best fit**  **Close fit**

Source: <https://go.forrester.com/blogs/how-to-de-risk-your-commerce-replatform/>

Only the most advanced companies with unique business models and needs, should go after a fully decoupled microservice architecture and shop for the best of breed within commerce components. This could be going for commerce engines like BigCommerce coupled with a React front-end and a broad array of best of breed services.

The options and vendors within this field are numerous, but the most important element is getting the strategy right.

How, then, will a new setup increase business value? How will more freedom within the front-end create better customer experiences? What kind of scaling and operational needs will you have within the next 3 years? How do you cooperate with your digital partner and what is the role of your internal team? These are some of the questions that should determine how your ecommerce replatforming should be done.

Here are a few key points to analyze your needs:

1. UX needs

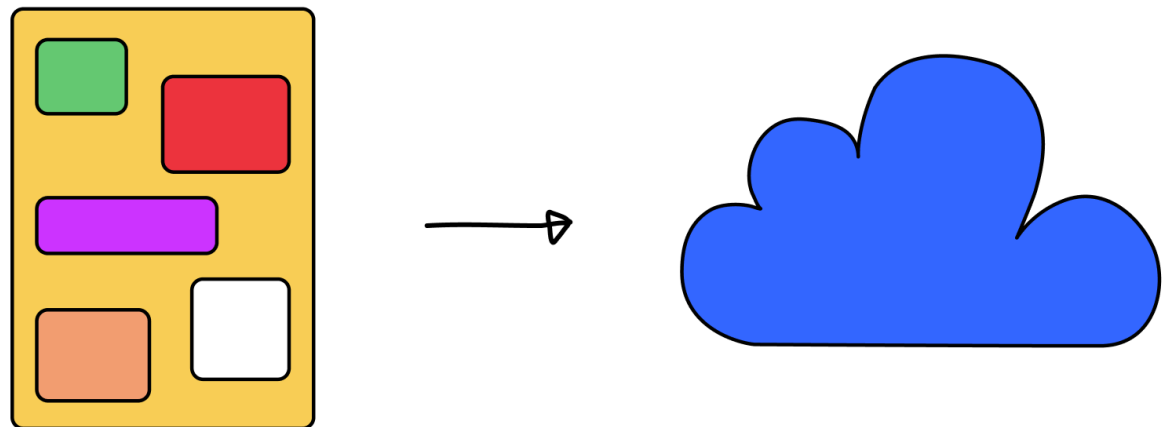
Is your monolithic platform not allowing the UX/design changes you want, making it complex to innovate with user experience and restricting you to expand to newer touchpoints?

2. Technical skills

What is your current technical skill-level? This helps determine whether you or your digital partner are able to handle API implementation, management and technical customization of UI.

3. Commerce capabilities

Assess whether your team or digital partner is capable of handling the commerce services or customer engine components to ensure risk-free interaction with frontend and backend architecture of the complete system.



What to do from here

We have seen some intense cases dealing with legacy ecommerce customizations that failed miserably. Thinking about your new platform merely as a 'lift & shift' from legacy customizations to a new more modern platform is a sure way to fail. You need a fresh start and really evaluate what features create value for your customers. You do not want to carry all the deadweight of code from your previous project with you into your next platform unless it is absolutely necessary (which it isn't in 90% of the cases we see!)

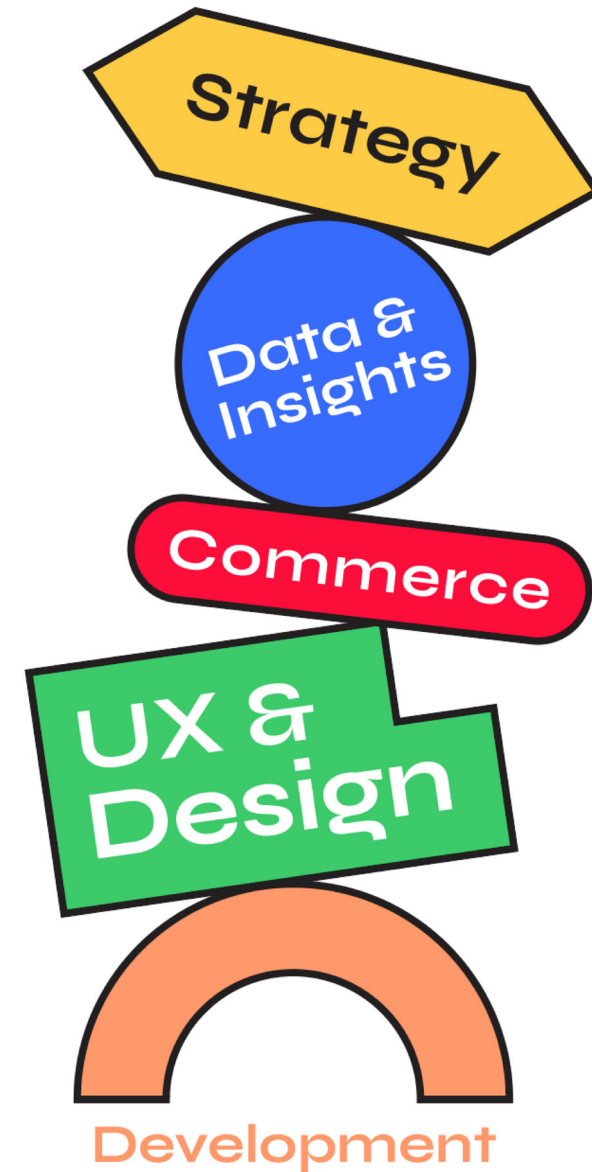
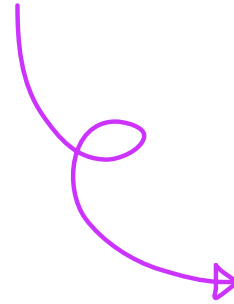
A lot of businesses already tried to do a complete lift and shift from the legacy provider's new version ended up canceling the project and selecting a different vendor altogether. Not a great thing to report to your board of directors, right? But Forrester found companies with iterative approaches to migrating off their old commerce solution were successful. They minimized technical risk and got up and running faster by doing one of these approaches:

- 1. Start one brand at the time**
One company told Forrester that they started with a new headless platform for brands, where they can show the most revenue growth, brand rejuvenation, and protect the consumer.
- 2. Start with the most vital flows for your business**
Interflora is working on decoupling their Ecommerce architecture and chose to roll out a new headless checkout flow 100% optimized for the mobile experience. We A/B tested the new flow on the new platform until it performed better than the legacy one, then they gradually ramped up traffic to 100%.
- 3. "Strangling" the monolith**
Forrester reports that some companies are breaking up their legacy monolith by isolating discrete applications and moving them to the cloud. The trick here is that you have to already have your experience layer decoupled. In other words, you have to already be headless before you apply this strategy.

It should now be clear that headless commerce architecture is not for everyone, and you need digital maturity across your ecommerce ecosystem. It is not a plug & play solution and the value should be clear before companies dive into headless commerce approaches.

However, the companies that master headless commerce will be able to innovate faster and launch superior customer experiences than their counterparts locked into monolithic ecommerce software. That is why we see the next years' digital winners betting big on headless ecommerce architecture.

Shaping tomorrow's user experiences



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