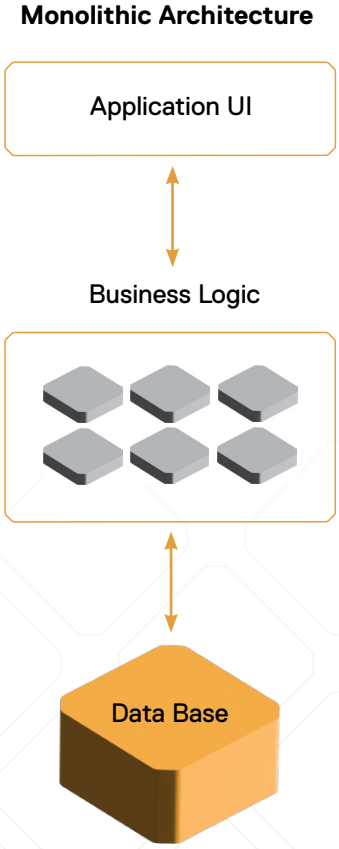
HANDOUT

PBCs or Microservices? The winning value proposition of a PBC platform

Spryker

Once upon a time, e-commerce platforms were built as large, indivisible units called monoliths. However, the last few years have called for more speed, flexibility and scalability as main features required for businesses implementing e-commerce solutions. As a consequence, the software that companies utilize needs to be more agile – that has led to the rise of microservices and PBCs. Let's take a look at the fundamental difference between monoliths, microservices and PBCs, and try to understand why a PBC system might be the best solutions for your digital commerce platform.

What is the Monolithic Architecture?

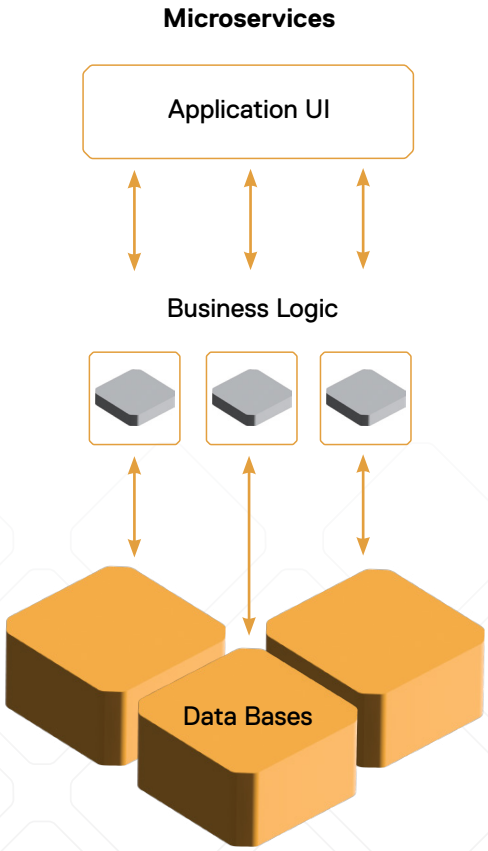


Monolithic architecture can be seen as a solid block, cumbersome and inflexible, and requiring a lot of work to allow any change in the system. In fact, if changes are made to any part of the platform, all of its software has to be considered and updated.

One-size-fits-all systems no longer provide the versatility required for modern business, largely due to their limited customization and lack of features for niche use cases. One way these new attitudes are reflected is through the move away from monolithic e-commerce platforms to microservices or PBCs.

What are Microservices?

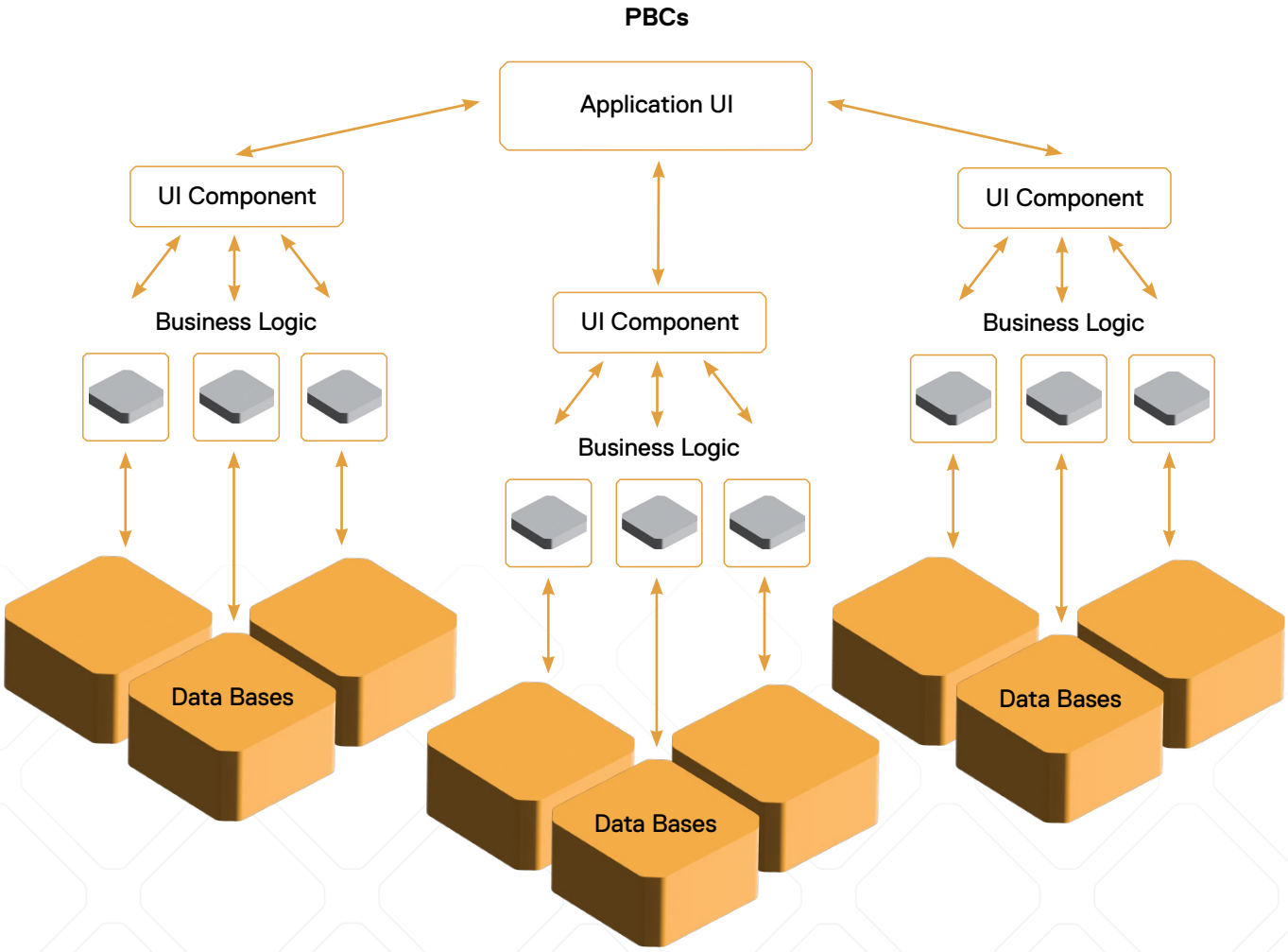
At the opposite side of the monolithic architecture built on a single large indivisible unit, microservices platforms are built from tiny autonomous components. Microservices are granular and independent but loosely coupled on the same platform. More flexible than monoliths, microservices can be extended, updated and modified without altering the functionality of other services in the platform.



Due to their nature of independent components, microservices fall under the composable commerce paradigm. But this doesn't mean they are the only ones, or the best solution.

What are PBCs?

Packaged Business Capabilities (PBCs) are bundled features that perform specific business functions. In other words, a PBC is a service or application, decoupled from other services, that uses APIs to communicate with other components. PBCs are the building blocks that allow Composable Commerce to transform technical aspects into experiences that are tailored to specific business objectives.



PBCs are a future-proof bridge between monolithic platforms and microservices. Their ability to work independently of other PBCs enables agile updates, changes, and extensions with no impact on the overall tech stack. PBCs enable users to easily switch between capabilities provided by third-party vendors, embracing both composable enterprise and a best-of-breed approach.

PBCs are largely seen as a forward-thinking business solution. Gartner predicts that 30% of digital commerce organizations will use PBCs to construct their application experiences by 2024.

Why are PBCs preferred for Composable Commerce?

Both PBCs and microservices are scalable, headless and independent. But a platform built on PBCs can have several advantages over one built on a multitude of microservices.

Microservices require substantial time and effort during implementation. A solution that consists of multitudes of microservices creates complexity, thus can be expensive and difficult. In fact, each microservice carries its own APIs, and it is a huge effort to stitch them together. Moreover, they only perform a specific task, often quite small in scope. Although it is easier to extend out individual microservices, several may need to be extended to fully create a new function.

A PBC application focused on the business value of its components has several advantages compared to a microservice platform:

Exceptional Business Value

Each PBC's goal is to increase the system's business value, with a clear explanation of the advantages and requirements for both business and IT organizations. This is because decisions about new features, goods, or services should ideally be made collaboratively.

Progressive Collaboration

Progress and added value are produced for each stakeholder when business and technological values are understood across departments.

Carefully Curated

Standardized, rigid, and clunky shelfware can be avoided because PBCs let businesses select what is necessary while giving plenty of room for customization.

Reduce Costs

PBCs reduce complexity and total cost of ownership in comparison to microservices.

Accelerated scalability and time to market.

Provided as an intact unit of APIs, the speed of initial setup and maintenance is increased using PBCs.

Allow businesses to take advantage of the best solutions on the market.

Offering an ability to swap capabilities with those offered by multiple third-party providers means organizations can opt for those which offer the most value to their business.

	PBCs	Microservices
Lower Level of Complexity	☆☆	☆
Business-centricity	☆☆☆	☆☆
Low Cost of Ownership	☆☆	☆
Customisation	☆☆☆	☆☆
Best-of-breed Solutions	☆☆☆	☆☆
Speed and Time to Value	☆☆☆	☆☆
Clarity and Team Collaboration	☆☆☆	☆☆
Applicable in many Use Cases	☆☆☆	☆
Operational Ease	☆☆☆	☆
Less Developer Resources	☆☆	☆

Conclusion

PBCs, as offered by Spryker, offer a compromise between traditional monolithic architecture and granular microservice applications. When correctly handled, they provide the right amount of flexibility and agility highly sought after in today's competitive business landscape.

Spryker's App Composition Platform enables businesses to build the platform they want by connecting, configuring and utilizing a curated selection of third-party services, or apps, on their application at the click of a button.

Learn more about Spryker's App Composition Platform

About Spryker

Spryker Systems GmbH is a privately held technology company headquartered in Berlin, Germany and New York, USA. Founded in 2014, Spryker enables companies to build sophisticated transactional business models in unified commerce including B2B, B2C, and Enterprise Marketplaces. Spryker is the most modern, fully composable platform-as-a-service (PaaS) solution with headless & API-based architecture that is cloud and enterprise-ready and loved by developers and business users worldwide. Spryker customers extend their sales reach and grow revenue with a system that allows them to increase operational efficiency, lower the total cost of ownership, expand to new markets and business models faster than ever before: Spryker solutions have empowered 150+ companies to manage transactions in more than 200 countries worldwide and is trusted by brands such as Aldi, Siemens, Hilti, and Ricoh. Gartner® recognized Spryker as a Visionary in the 2021 Magic Quadrant™ for Digital Commerce, just one year after it first appeared (2020), and has also been named as a major player in B2B e-Commerce by IDC. Finally, it is the only commerce platform to provide full B2B, B2C, D2C, and Marketplace capabilities out of one stack. Find out more at spryker.com

Spryker

Spryker Systems GmbH
Heidestraße 9–10
10557 Berlin / Germany

T +49 / 30 / 208 49 83 50
M hello@spryker.com
W spryker.com