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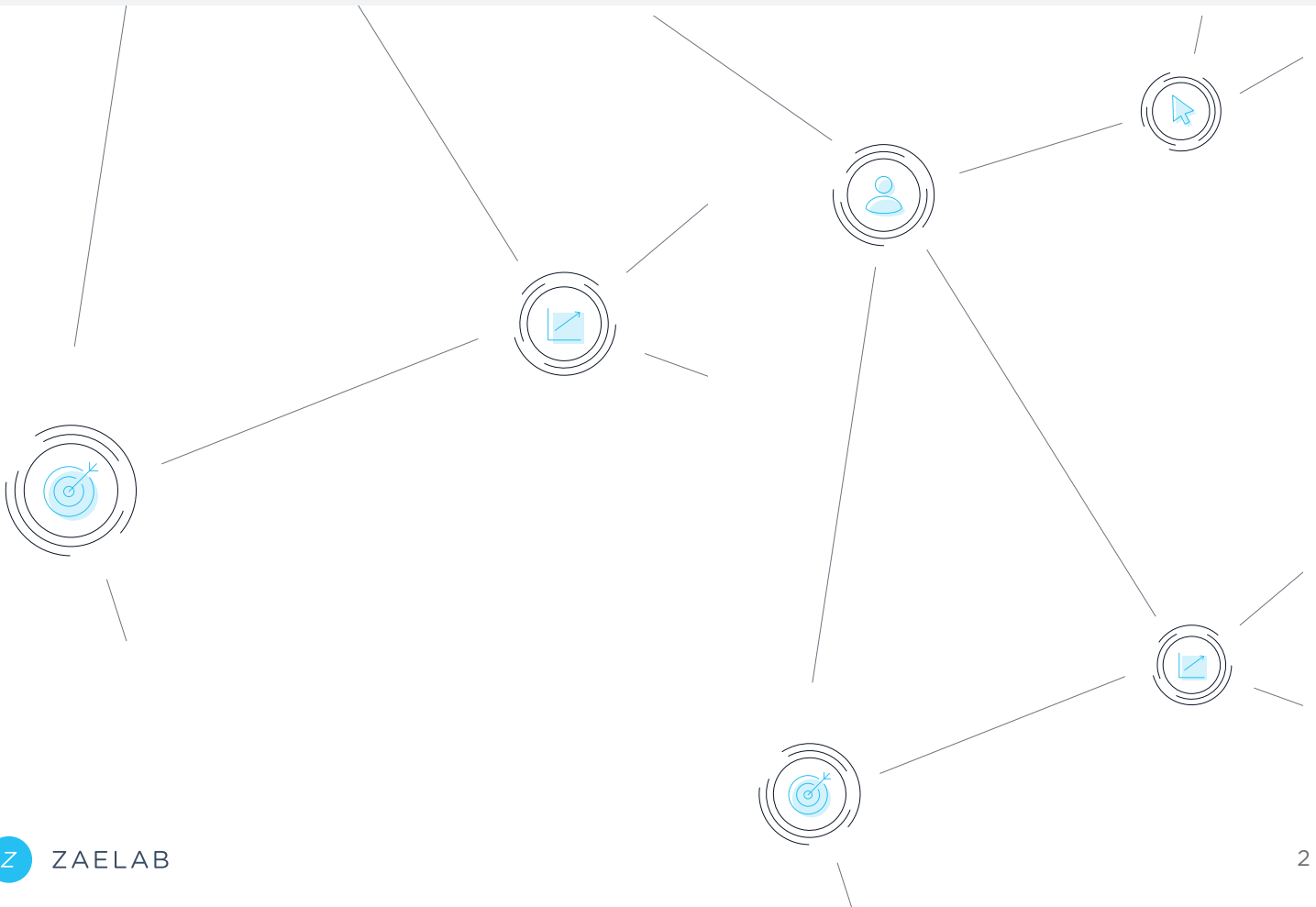
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**commercetools**
*Next generation commerce*

# From Monolith to Microservices:

Learn how enterprises are boosting their speed and flexibility by shifting commerce architectures.

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# Executive Summary

Until recently, digital commerce platforms were almost exclusively deployed by monolith architectures. While this type of framework remains a viable and revenue-producing platform for many enterprises today, it also poses challenges.

Heavy, feature and functionality rich, and slow, monolith commerce platforms provide too much of what is unneeded. Moreover, frontend templating logic is geared towards classic, browser-based ecommerce sites and webshops. As a result, monolith frameworks are not nimble enough to deliver what is required within a reasonable time, or built to scale.

The business driver for increased enterprise flexibility is the customer and experience-led commerce. With monolith architectures, out-of-the-box is a gray area and integration seems to consume implementation - often at the sacrifice of the customer experience. Businesses are seeking out new ways to increase their agility in order to meet customer needs.

Contrary to a single monolithic application that handles all business logic and offers all features, a microservice-based approach encapsulates each business capability into individual services and lets them interact with each other. The result: reduced software complexity and increased speed and flexibility.

A business' commerce platform should be a revenue-enabler and not its handicap when it comes to quick response to market demands. Learn why enterprises are migrating onto microservices architectures - even after implementing a monolith platform - to increase speed and flexibility.

# Introduction

When enterprises implemented ecommerce platforms in the early 2000s, the monolith architecture delivered. It was one, lightweight and unified application. The typical, and most essential features and functionalities were pre-packaged. Requirements were easy to meet. Omnichannel was a mere twinkle in one's eye.

Over time, as one would expect, things changed. Customer and market demands became more complex as delivery expectations turned urgent. Monolithic architectures took on new features and functionalities to meet changing needs, but in doing so, became slower.

Today, an enterprise can still "get it all" from a monolithic ecommerce platform with the caveat that it will take time. Implementations, upgrades, and new integrations are possible, so long as you have a month or two to spare. The problem is that for most leading enterprises, time is of the essence.

Innovation and speed are competitive differentiators. But how can enterprises deliver seamless digital experiences right now when monolith platforms are slowing business down?

Contrasting monolith are microservices. Unlike heavy and slow monolith architectures, microservices are small services that are individually developed and deployed. Communicating via APIs, microservices reduce software complexity, scale vertically, and - you guessed it - increase flexibility, speed and resiliency.

So marks a shift in ecommerce; enterprises are seeking out platforms that not only deliver on today's needs, but that are also designed to scale with the ever-evolving digital landscape. In fact, a recent Gartner study revealed that 56% of enterprise organizations have adopted microservices or have planned and budgeted to deploy API-based or headless commerce architectures.

This turn toward microservices is enabling enterprise agility. Customer demands can be met in days or weeks versus weeks or months, which ultimately better positions enterprises against competitors, Amazon and upstarts.

The question is, how can enterprises adopt microservices architectures - particularly if their ecommerce solution is currently being deployed via a legacy, monolith platform?

**WHAT YOU'LL LEARN:**

- Why monolith digital commerce platforms are not designed to scale with changing market demands

- The benefits of headless commerce architectures, and how they can be leveraged by enterprises

- Why migration doesn't have to be a "lift and shift" experience, and how to move from a monolith platform to a microservices architecture in increments

- How to identify the right time for the business to begin migration

- Why APIs, open architecture and headless commerce platforms are enabling best of breed digital experiences