DIVIDE AND CONQUER: MICROSERVICES VERSUS THE MONOLITH

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You find the product you want. You click. You buy. You expect it all to work perfectly. But the thousands of customers buying food and groceries online from our client a few years ago had an entirely different experience. They wanted fresh vegetables but got system failures. They wanted frozen meals but they got frozen screens instead.

Infuriating for customer, yes. But also frustrating for the company with an expensive, error-prone system that was too cumbersome to evolve in line with the company's expansion plans. Something had to change.

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PROBLEM

The problem dated back to 2009 when the retailer decided to open the e-commerce channel, built on an off-the-shelf product. The solution implemented lacked speed, flexibility and stability to support the 200 percent growth for the channel and would often breakdown during peak business hours. Platform scalability was a concern, leading to only 220 of the retailers' 1400 stores being enabled for the e-commerce channel. Naturally, both store owners and end customers were unhappy with their experience.

SOLUTION

Starting with improvements to the existing solution, we transitioned from the old 'waterfall' methodology to 'Agile' methodology and introduced DevOps and Automation. This enhanced the channel's flexibility and stability, which meant new features could now be easily introduced, in response to customer needs.

But the biggest challenge was replacing the ill-implemented monolithic solution with small, independent microservices to reap several benefits. The 'decoupled architecture' enabled new versions of services to be deployed easily, thereby improving time to market while lowering release management overheads. The introduction of microservices also improved system scalability, thus allowing client to onboard additional stores on the e-commerce channel. Unlike the old monolithic solution where failure of one module invariably meant failure of the whole system, the new architecture isolated failure of modules, thus improving the service availability to over 99.9 percent. Transitioning from the monolithic architecture to a microservices based decoupled architecture also made security assessment easier. The client is now on a journey to the cloud, which, besides saving cost, allows it to scale faster to meet peak needs.

The implementation has transformed the retailer's sluggish e-commerce channel into a highly agile and reliable platform, and immediately strengthened its position in the market. This resulted in a whopping 470 percent increase in online orders over a two-year period. The adoption of less complex open source stacks has reduced licensing costs and lowered the critical "cost per order" metric.

More importantly, when customers order, they get the products and the experience they expect.

ONLINE ORDER VOLUME UP

470%

IN TWO YEARS

99.9%

AVAILABILITY

WE DID THIS FOR THEM. WE CAN DO IT FOR YOU.

Find out more about how we can help you achieve better e-commerce performance.

Reach out to us at askus@infosys.com

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