

Microservice Architecture for One of the Biggest DIY E-Commerce Platforms in the Benelux Countries

Successful migration from a monolithic architecture to microservices to help Maxeda DIY group, our e-commerce partner, obtain the system that's more flexible, scalable and easier to maintain.



About our partner

Maxeda is a market leading Dutch retail group that operates do-it-yourself stores in Belgium, Netherlands, and Luxembourg.

- Industry: Retail and E-commerce
- Headquarters: Amsterdam, the Netherlands
- Market: the Benelux countries
- Founded: 1999
- Reach: 387 stores
- Size: 7,000 employees
- Revenue: 1.337 billion euros (2015)
- Owns several brands: Brico, Praxis, Plan-It, and Formido (HYS Enterprise cooperates with Praxis and Brico)
- Cooperation with HYS Enterprise: 3+ years

About our partner's challenges

Management and maintenance of the old monolithic system required a considerable amount of time and resources from the partner. The system contained a lot of obsolete elements, resulting in slower processes and lower operational efficiency.



What our partner needed

Our partner needed a more flexible system and a complete update to their website.

Maxeda has several development teams working on a team extension basis. The HYS team was put in charge of everything related to client services (creating orders, processing payments and orders, and so on).

Solution provided

- Began by supporting the old version of the system while designing solutions that would ramp up the efficiency of the system.
- With other teams from Kyiv and Amsterdam, decided to build a microservice architecture and upgrade the core system. The microservice software architecture allows dividing a system into smaller, independent services. Each of them is flexible, composable, and complete, can be implemented in different programming languages and on different platforms. This makes working with several teams easier. Compared to monolithic systems, microservices are more flexible and scalable and are easier to build and maintain.
- Integrated our client's core system with systems of our client's business partners.
- Migrated to Amazon Web Services, reliable, scalable, and inexpensive cloud computing services. This allowed Maxeda to reduce maintenance costs by paying only for the resources they use, scaling capacity up and down when needed.
- Customized the user flow to enable users to accomplish their tasks as efficiently as possible and improve the website's success rate.
- Started planning the development of another microservice and upgrading SAP Hybris from 5.x to 6.x.

Methodology and technologies

Methodologies used: Scrum, Large-Scale Scrum (LeSS)

Technologies applied: Java, Spring, Spring Boot, JavaScript (React.js, Node.js, Express.js, Zalando.js), Docker, Amazon Docker, MongoDB, DynamoDB

Outcome and benefits delivered

As of 2018, we've been working with Maxeda for more than two years, and we continue to successfully improve and maintain their projects.

During our work with Maxeda we've collaborated with two other development teams to meet all of our client's recruitments, update the entire system, and create a flexible microservice architecture, which has resulted in productivity gains and a conversion rate increase.