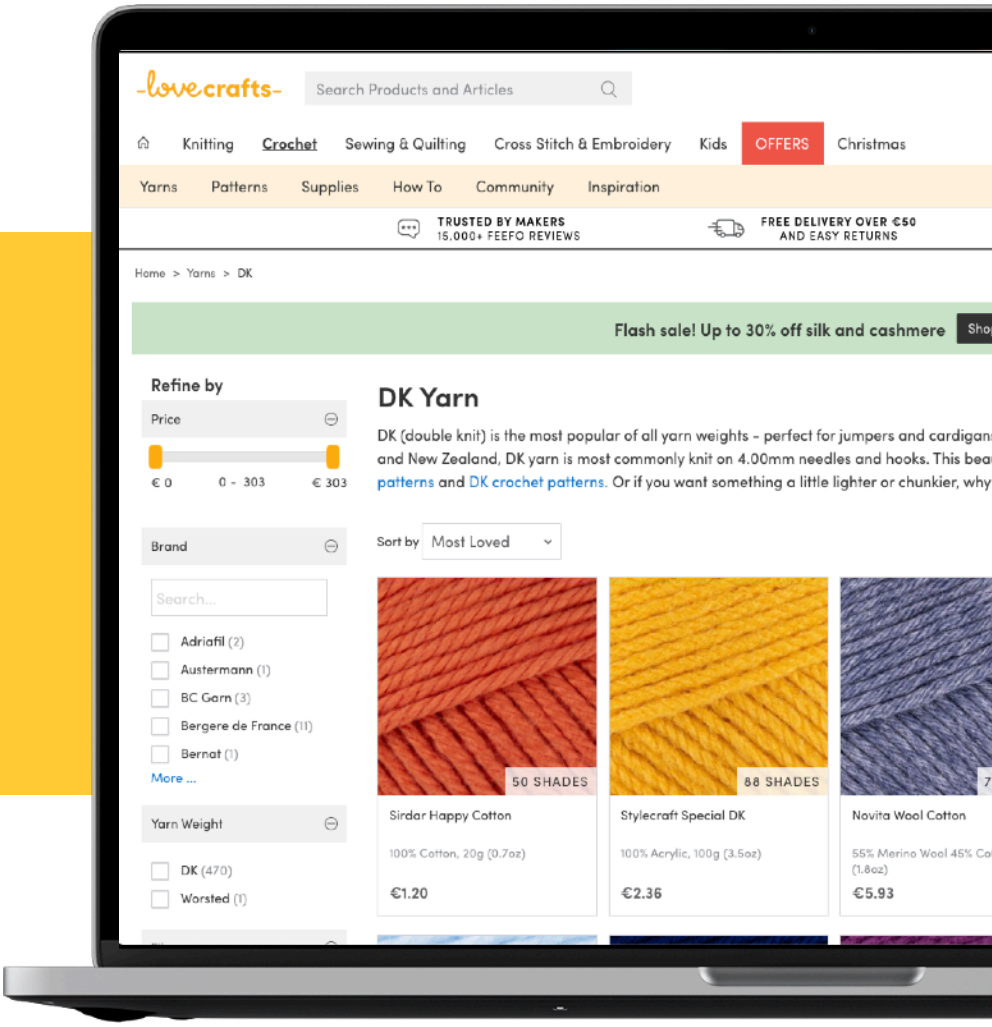
LoveCrafts loves MACH



To serve makers around the world, LoveCrafts turned to a composable architecture that helps it deliver nonstop growth

LoveCrafts is on a mission to create a global community. It's a first-of-its-kind online home for makers, offering a place for crafters to feel inspired and connected, and to find all the materials they need. Its strategy, and its clever development of a composable architecture, has vaulted LoveCrafts into a position as the world's top destination for knitting and crochet supplies.

When LoveCrafts was founded in 2012, it had two opportunities. The first was to fill an e-commerce gap that had overlooked crafters. The second was more ambitious: to build a global community for makers to share their work, learn from peers, and forge relationships.

The company's strategy is to build this experience by creating three pillars -- content, community and commerce -- intertwined for a seamless user experience, but separated enough that they can evolve and grow independently. A composable architecture, based on MACH standards, is now the foundation of the LoveCrafts IT strategy to connect the three pillars of its platform, extend its customer services, and deliver uninterrupted experiences around the world.

Now serving as the Chief Technology Officer, Koklu is part of the LoveCrafts leadership team to together build a unified experience. The company's three pillars of content, community and commerce are connected using metadata so that, for example, crafters can see a list of materials and equipment to purchase for a pattern, or sort for community-created patterns they can fashion from their existing materials.

The site's user experience frequently intermingles content and capabilities from each pillar.

LoveCrafts built the first iteration of its IT foundation over roughly four years, starting in 2013. It began with a relatively standard digital commerce function. Then, it created a content platform where crafters could find new patterns, and individual designers could post and sell their custom patterns in a content marketplace. Finally, it built a community through features for users to share additional content, to engage with each other through follows and discussions, and with channels for LoveCrafts to post blogs and updates.

The most important thing in setting your IT strategy is to know your business well, and where you want to be in 5 years. Once you know where you want to go, choose the tools that enable you to focus on value creation that transforms the business, rather than spending time recreating basic functions.

Even as it built the basics of customer-facing features, LoveCrafts knew from an early point it wanted to embrace a strategy of an API-first, cloud-native, headless IT foundation, which could keep the pillars of its business connected but enable them to continually improve. A monolithic platform could not keep pace with LoveCrafts' globally scaling business. And with the three pillars so intertwined in the user experience, running multiple front-ends woven together introduced performance and productivity issues. Koklu's promise to the LoveCrafts leadership team was simple: "After we change our commerce platform to a MACH platform, we will never run a replatform project ever again, and we can change or add capability easily without disruption."

For Koklu's 25-person IT team, "going composable was no-brainer" and signed on to a MACH philosophy from the start. Their objective was to build a flexible, open and future-proof architecture. Now, the API-first approach for all systems is nearly complete, as the IT team's dedication and focus has delivered both continuous services and steady progress toward their ultimate goal.

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The first steps toward running on a fully composable architecture started in 2014, when LoveCrafts began building its content marketplace and community pillars on headless solutions. Since then, Koklu and his team have updated the tools they use, to maintain flexibility. The content marketplace, where members can sell their patterns and grow an audience, is now running on an Angular JS frontend and Symfony backend. The community pillar runs with an API-only backend that includes features important to LoveCrafts, such as a flexible data structure to serve any type of craft, and a REST API controller with functions similar to GraphQL (which had not yet launched).

In 2018, Koklu and his team streamlined the editorial content management system,

Building and sustaining support for MACH

The market is moving from one-stop, full-stack platforms to modular solutions that decouple front-end and back-end capabilities. But when many organizations have the option to choose an established all-in-one platform, it's not always clear why they should support a MACH strategy. Three methods helped LoveCrafts to build support across the organization.

Specify the business benefits
A MACH strategy makes the most sense when it uniquely enables your business to differentiate. In the case of LoveCrafts, technology is integral to building a product that provides integrated content, community, and commerce for a global audience. No monolithic platforms could do all this for LoveCrafts, let alone efficiently and at scale.

Support your IT team's growth
In many companies, when tooling changes, the team changes. This isn't the case at LoveCrafts, which has done everything in house with the same IT team, rather than outsourcing to system integrators. When the team understands their roles are protected, LoveCrafts builds team loyalty -- and builds experts in next-generation software.

Focus on value creation
Don't spend your time reinventing basics. Instead, choose tools that can provide you with great basic functions and that connect well through APIs. Then, let your team use these building blocks to meet the specific needs of your company and customers.

retiring both WordPress (for blog content) and Magento CMS (for static pages) in favor of a headless, API-first architecture.

LoveCrafts is now focused on completing its final, and most comprehensive, step toward a composable architecture across the business: moving the commerce pillar to a headless architecture. The company is migrating from the Magento e-commerce platform to a decoupled solution built on a commercetools back-end and a Vue Storefront front-end. This a nontrivial shift for LoveCrafts because the company has spent years scaling Magento, both in terms of infrastructure and function, as the company grew to a truly global business with the need for multi-warehousing, proper multi-currency and taxation capabilities, and myriad performance improvements beyond standard Magento offerings.

LoveCrafts found commercetools to be an ideal back-end solution because it is inherently API-first. Combining commercetools with Vue Storefront gives LoveCrafts full control over the front-end user experience, without being constrained by functions of the back-end platform.

To maintain continuity during this migration, Koklu's team is using a strangler pattern to replace components that communicate by API piece by piece, without disrupting service. This "hot-swap" migration from a monolithic solution to a microservice implementation incrementally migrates functionality from the legacy system. When the new system completely takes over, LoveCrafts can decommission its Magento platform. Koklu is overseeing a step-by-step update of the commerce pillar as his team builds new functions including checkout, baskets, content pages, sign-in, and authentication, among others.

Most companies are anxious of taking their core applications to a multi-tenant cloud. You don't control the roadmap and the adaptability. This strategy only works well if the platform you buy is the right one for you, that runs most of your use cases natively and has a great adaptability through APIs.

LoveCrafts vastly prefers running on cloud native SaaS to the alternative, which is to update systems every year or two with a major overhaul. Those large, periodic updates introduce risks in terms of disruption, and incur the opportunity cost of locking in technologies or approaches for the coming years.

Choosing the right SaaS

As it looked to replace Magento, LoveCrafts did extensive market research into back-end solutions. It offers four key findings for any organization looking to select new headless technologies. This guidance is primarily for customers, but vendors, take note!

Prioritize transparent companies
Look for vendors who offer transparent information up front, before you commit. Don't sign an NDA or a contract just to get technical documentation. And don't postpone detailed discussions to the "discovery phase" of the project, which can waste time.

Undertake proof of concepts with vendors
Companies that let you sign up for a free trial demonstrate their confidence in the product. It's a great sign if a vendor lets you sign up yourself without a sales rep to coordinate access -- it correlates closely with their product's level of automation and cloud-readiness.

Identify your use cases and required capabilities
Every organization has a list of must-have functions to enable the business. For example, global businesses need internationalization and localization capabilities, such as multi-currency. To make an informed decision on the relative value of different approaches, you should understand which features you need, look at the customization required from each solution, and document the implementation and running costs.

Choose more flexible options when possible
SaaS can be limiting if the solutions you choose don't support your business needs -- yet it can be a challenge to know what functions your business may need years into the future. Consider the benefits of software that offers customizability, modularity, and composable architecture as you think about the ways your organization may evolve.

LoveCrafts chose commercetools for its back-end, API-first commerce platform only after extensive due diligence. Koklu understands why companies are nervous to migrate to SaaS products for their core business processes. It's not feasible to truly customize multi-tenant SaaS products, but LoveCrafts found that commercetools provides sufficient flexibility, in large part because of its modular and open architecture. LoveCrafts can use certain commercetools modules, such as the shopping cart or ordering system, independently from other features. Without modifying the underlying SaaS product, LoveCrafts has the flexibility to customize its use of commercetools with other systems for product data management, taxes, or pricing engines.

With the journey to a composable architecture nearly complete, Koklu acknowledges that some aspects have been challenging. Teams need to be resilient when they encounter the unexpected, and comfortable putting in effort to complete the work creatively. LoveCrafts showed commitment to its team by providing IT staff with opportunities to learn new skills and become proficient in new tools, rather than bringing in specialists or outsourcing the project.

Looking to the future, Koklu sees nothing but upside. The investment in a composable architecture foundation will support agility far into the future. Now fully covered by APIs and gathering the right data, the product team can move faster and more consistently. Koklu also finds that with a headless and microservices architecture, he has more flexibility to structure teams around responsibilities and ownership. Now, for example, a team member may own the pricing or checkout functions, rather than filling a more narrow role defined by technical skills.

When LoveCrafts completes the final steps of its migration to a composable architecture, it will be positioned to help makers around the world grow and connect, uninterrupted, for years to come.

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