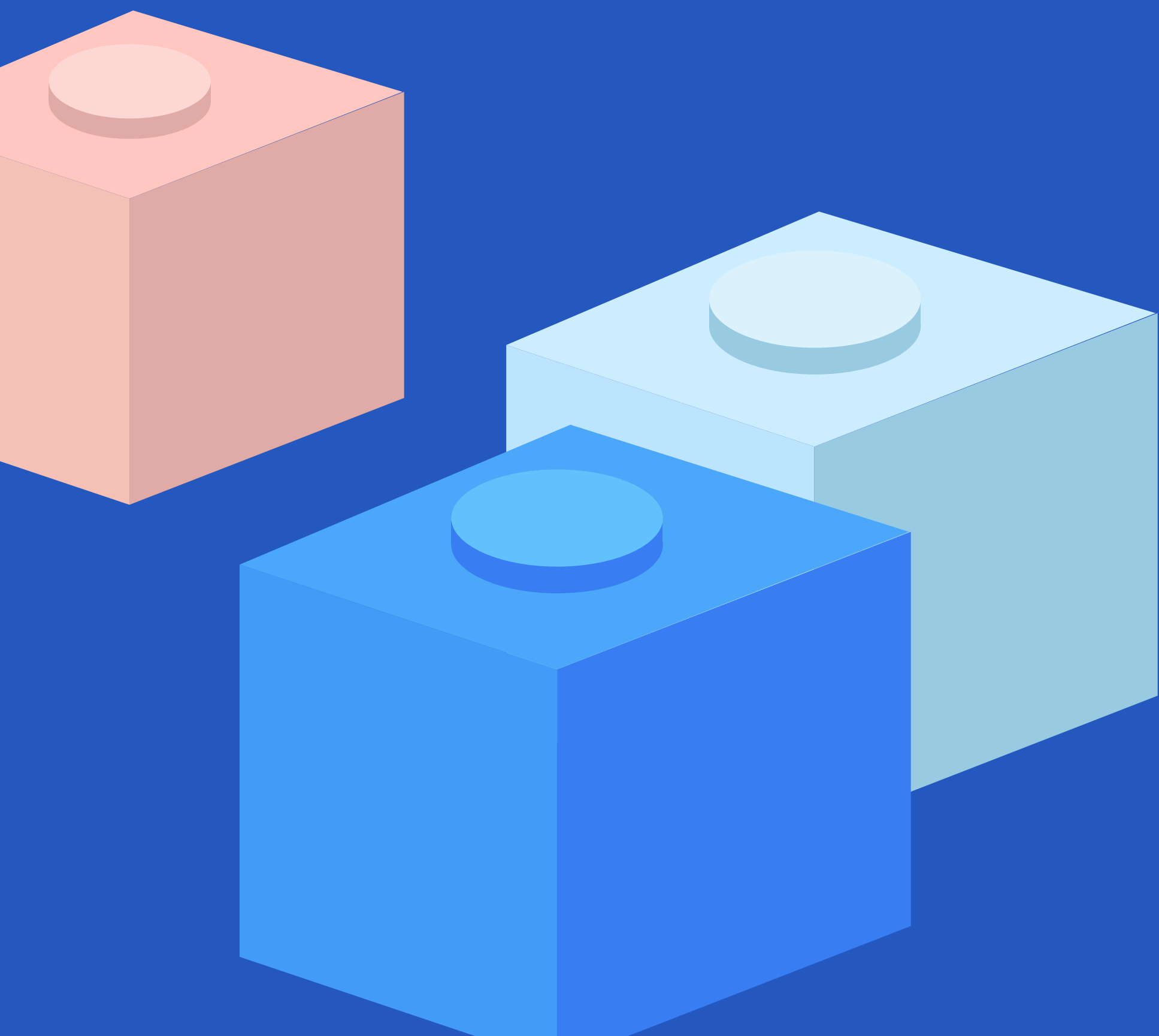SPRING 2022

APPLY
DIGITAL

How to Get Started with MACH

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Contents

A digital history in the making:
From Inflexible Suites to Modular Stacks

Moving from a monolithic suite to a MACH stack ecosystem is about rethinking how your business operates. It requires you to take some initial steps to set up a modular software ecosystem by bringing together interoperable technologies that serve your business goals.

Before we dive into how you can get started with MACH, aren't you curious about what MACH is and why it's so popular in the tech world?

A MACH ecosystem comprises of specialized technologies, also known as packaged business capabilities (PBCs), that are modular and interoperable. In the past, technologies existed as standalone solutions that weren't interoperable. The different capabilities like content management systems, commerce, and search existed in silos. Businesses needed solution providers like us to help build integrations that allowed interoperability between these solutions, creating a tightly coupled enterprise suite. But if a suite failed to serve the purpose, the only choice was to move to another suite, putting a major strain on both time and budget. So while these businesses gained the ability to go to market quickly, they lost the flexibility to adapt to changing market conditions.

That's when the software industry realized that modularity along with interoperability within a software ecosystem is a must. So tech stacks started replacing suites as businesses began formulating a future-proof organizational model. MACH is an architecture and set of principles that helps us build revolutionary tech stacks.
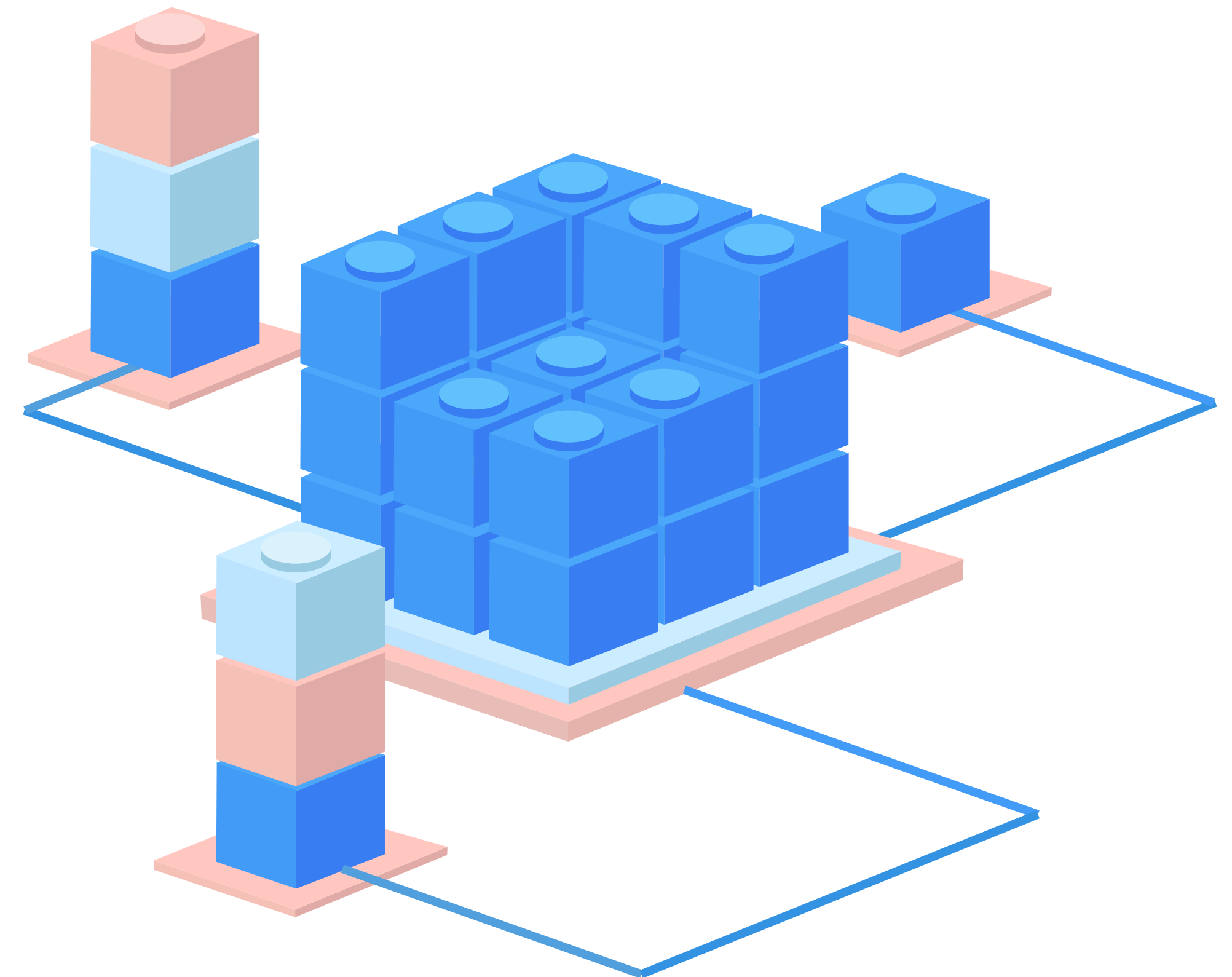
Re-evaluating your Organizational Model as you Move to MACH

Setting up a MACH tech stack requires some initial steps. But once established, the MACH architecture gives you both flexibility and agility to rapidly respond to changing market demands. This is a general overview of some of the basic steps we take to help support your move to MACH:

01   We consider your business goals to decide whether you should move to MACH

02   We audit your existing ecosystem to decide on the capabilities that require a change

03   We choose the best of breed PBCs to revamp these capabilities

04   We get into the execution and integration of these PBCs

You can start your MACH journey by changing one capability at a time based on your immediate needs, without having to rethink your entire business model at once.

Let's dive into how our MACH experts at Apply Digital introduce core and niche MACH capabilities to your software ecosystem.

01

Core Capability:
Start your MACH journey with Content

Companies using a monolithic suite have content scattered across different business parts that are tightly coupled to the front-end, creating dependencies between these parts and adversely impacting the user experience. A headless MACH CMS like Contentful's content platform tackles this challenge and sets up your content for an omnichannel experience.

We consolidate all your content in one place and model it differently for different parts of the business. So now, we have centralized content decoupled from the front-end, ensuring a frictionless user experience.
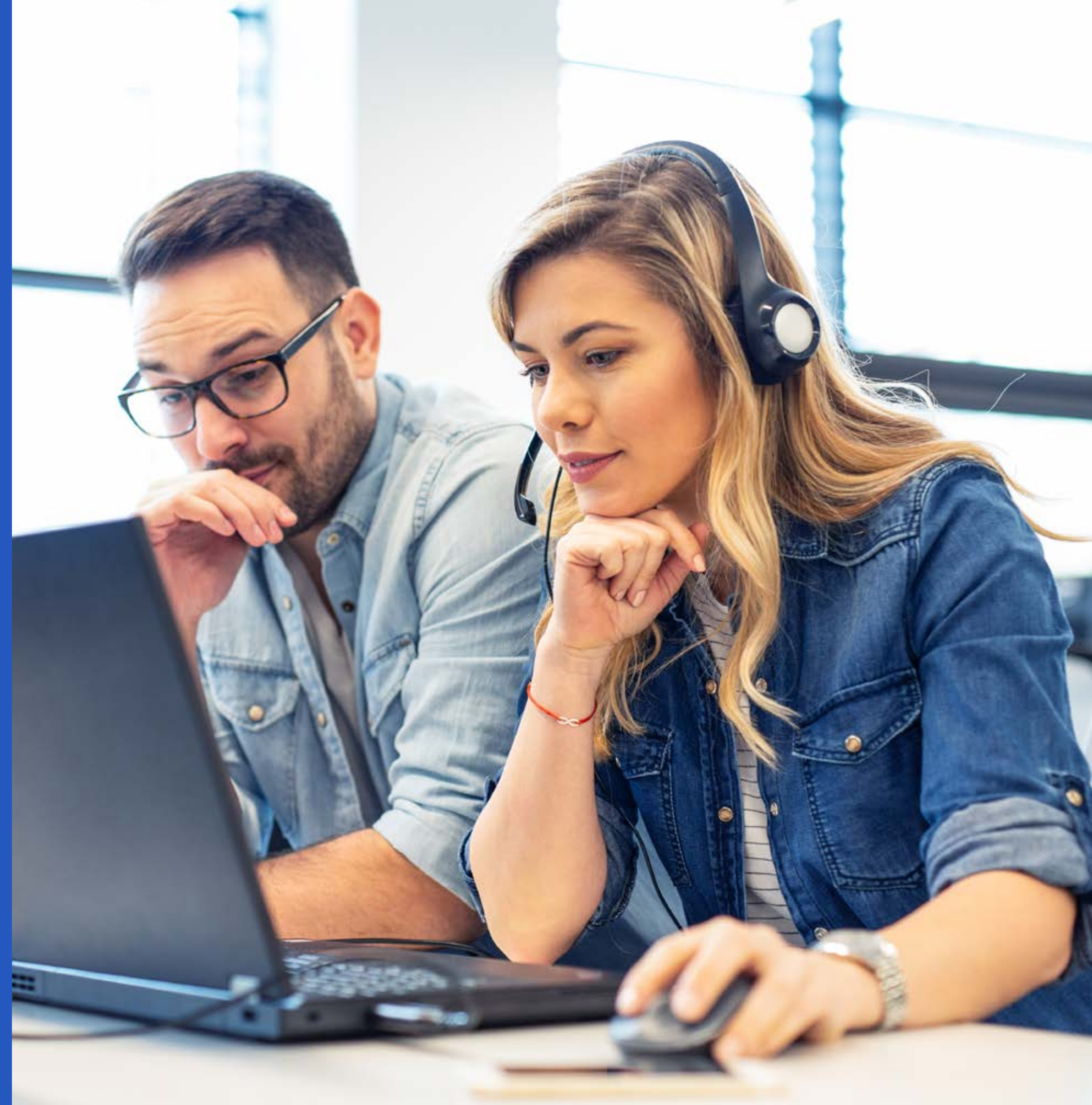
Core Capability:
Start your MACH journey with Content

Here are the ways we get you started in your transition to a headless CMS experience:

Step 01	Model content for consistency across touchpoints:	• Create a design system consisting of reusable components for all touchpoints • Model content on the CMS by combining these components to give structure and organization to your content
	The Takeaway	• Your MACH CMS ensures consistency and reuse of content for fast-track delivery and retrieval through APIs

Step 02	Set up the information architecture:	• Add a navigation model to help build the information architecture for the content, which varies from one touchpoint to another, just like content modeling • This can be done inside the CMS or using an external navigation tool
	The Takeaway	• A clearly defined information architecture creates a strong base for an uninterrupted customer journey

Step 03	Headless content delivery:	• With organized content and navigation in place for all touchpoints, your CMS focuses on one thing: content delivery via its API

Because the CMS is not hard-wired for just a limited set of touchpoints, if a new touchpoint gets added in the future (like as a kiosk or wearable), there would be no impact on the rest of your business or the user experience.

Our MACH Content success stories

While working for [Shaw Mobile](#), we had separate teams modeling the content for different sections (Shop, Browse, and My Account) on their site, but [Contentful's content platform](#) as our MACH CMS allowed consistency across all sections. For Freedom Mobile, we had content that consisted of many mobile phone options for purchase. We modeled the content as the user would see the phones in the real world, making the experience device agnostic.

02

Core Capability:
Start your MACH journey with Commerce

Having the right commerce engine for your organization gives users a better experience, helps build your brand, and most importantly, increases your revenue. It also improves the efficiency and capability of the back-office staff.
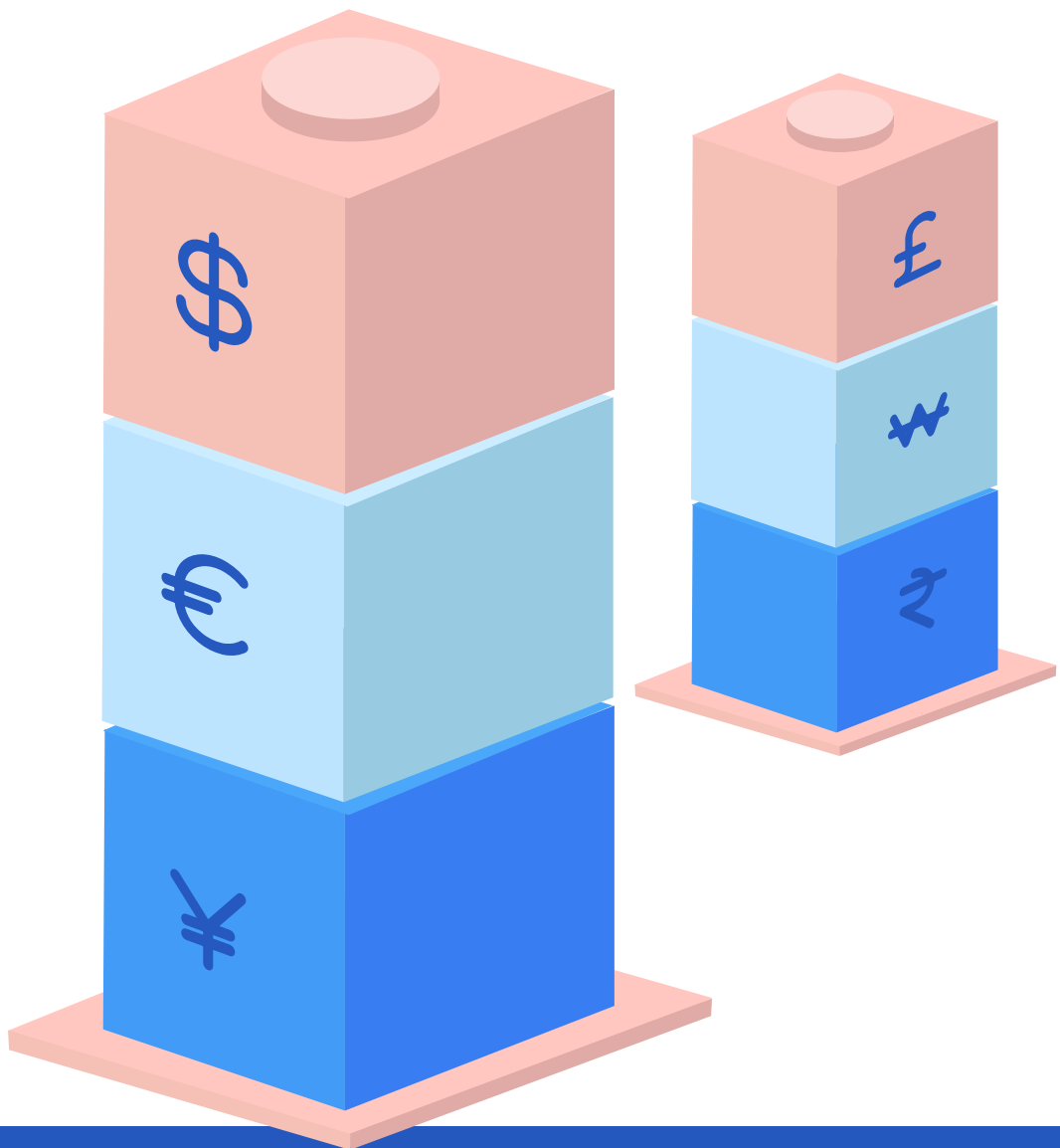
Due to the central role of a commerce engine in a software ecosystem, there has been fierce competition and dramatic evolution in the way commerce operates. Today, headless composable commerce is widely being adopted for its promise of enhanced capabilities, flexibility, and lower adoption costs.

Here's the way we help you begin your transition to a headless commerce experience:

Core Capability:
Start your MACH journey with Commerce

Here are the steps we take to help you facilitate your transition to a headless commerce experience:

Step 01	**Evaluate and contrast:**	• Evaluate the gaps in your existing commerce engine • Determine whether you need to replace your engine or add composable commerce PBCs to assist your commerce
Step 02	**Choose your commerce tools:**	• Bring together PBCs like Order Management System (OMS), Product Information Management (PIM), Payment, Customer Data Platform (CDP) etc. and other available SAAS tools that are free of vendor lock-in and serve your commerce needs
Step 03	**Build your composable commerce using standard interfaces:**	• All the commerce PBCs in the MACH ecosystem are committed to making interoperability as streamlined as possible using standard API-driven integrations • Assemble and integrate these PBCs into your ecosystem by overcoming any challenges with our support
	The Takeaway	• Your new commerce engine is composed of interchangeable tools and is ready for future scaling and transformations
Step 04	**Iterate and expand with MACH:**	• After setting up your core commerce engine, focus on adding new capabilities like personalization and search as you iterate for an extensive commerce experience

We intuitively support your end-users in every step of their journey with headless composable commerce and build a new identity for your brand.

Our MACH Commerce success story

While working for eMed, a smart healthcare startup, we leveraged the use of PBCs like Orders and Inventory and Payment provided by Elastic Path Commerce Cloud (EPCC), which is a multi-tenant headless eCommerce solution. We combined these PBCs with our custom-built shopping cart and checkout flow experiences as we required customers to have doctors' approvals before placing an order.

03

Niche Capability:
Start your MACH journey with Search or Communication

It isn't always necessary to move major parts of your business, like commerce or CMS, to MACH. Instead, it's possible to take the bottom-up approach and start with a niche peripheral tool. Tools like a centralized search tool, a customer communication tool, or a social media tool could meet your immediate requirement. We can always go back to larger parts of the business as you scale and grow.

Adding a centralized search system means all-time high service availability beyond just keyword matching, and making queries and database calls faster. Centralized search tools assist the CMS when the built-in search falls short. We integrate the search tool modularly at the backend, adding strong features like spell check, location identifier, and search with languages other than English. But what happens when the CMS needs to be changed? Does that mean the search tool needs to be changed too? No. At this stage, we just bring in a new CMS that replaces the old one and integrate it with our search tool.

Our MACH Search and Communication success stories

Niche PBCs are as important as the core business capabilities. They fill the gaps in customer journeys, providing an omnichannel user experience that goes beyond satisfying the customers' needs. We've integrated a third-party search tool like Algolia into the tech stack of many of our clients quickly and seamlessly, helping them reap the benefits of advanced search. Similar to search, tools like Infobip and Stream quickly help us leverage other niche capabilities like customer communication and social media expansion.

Final Thoughts

Working with an experienced solutions partner like Apply Digital paves an easier path to choosing the best and most effective capabilities and tools to serve your road map efficiently. Your internal teams will be more empowered than ever while using these tools without any IT support hurdles.

When you move your business from a monolithic suite to a MACH stack, we walk you through the changes and integrations as we add core and niche capabilities to your ecosystem and help address any questions that you might have along the way. To support agility and continuous improvement of MACH capabilities, the interest in the MACHification of technology is also growing on the data front. We then use data-specific tools to fetch and visualize data and gain insights on your tech stack to ensure its robustness by using KPIs that help us keep our tools and architecture in check. Stay tuned for our next white paper where we talk about the use of data inside a MACH ecosystem.

At Apply Digital, we strongly believe that the move to MACH technology is a turning point in the evolution of present-day enterprise tech. MACH enables scaling, experimentation, and agile change for the lowest cost and at the fastest speed. At every stage of the pipeline, it gives us the ability to reassess and future-proof your software ecosystem. **Our end goal is the same as yours, to get your business ready for uncertain times. So let us help you get started with MACH. Contact us at hello@applydigital.com.**

About
Apply Digital

Apply Digital is an innovation, products, and experiences company.

Digital to our core, we are purpose-built to transform possibilities for people. We solve complex problems with well-executed solutions tailor-made for continuous growth — we're ambitious and our clients are too. We work with well-funded start-ups, global brands, and Fortune 1000 companies spanning industries and audiences, including EA, Moderna, League Health, and Realtor.com.

For more insights on how we can help you succeed,

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