



**Driving innovation with MACH:
a guide to making the most of
your MACH implementations**

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Introduction

If you're reading this, we're going to assume you and your business have some kind of familiarity with MACH. At the very least, you've added some SaaS tools to expand and improve your commerce stack, plugged in from the cloud via APIs.

Maybe you've separated your front-end and back-end systems entirely to create a headless platform, giving you more flexibility and control over customer and user experience. Or perhaps you've already started experimenting with decoupling individual functions and features in an agile microservices approach. So you are, to all intents and purposes, "MACH Active".

But what does this mean when it comes to taking the next steps? What does it mean to put MACH at the core of your innovation architecture? How do you ensure the gains you make in your pilots and first projects translate to ongoing success in the long term?

A lot of organizations jump into taking a composable approach to try to increase the pace of innovation. They run a handful of deployments, congratulate themselves – and then wonder what happens next. In this guide, our aim is to lift the veil on the 'what next?', explain what innovating with MACH looks like in the long term, and demystify some common assumptions.

More than anything, we want to emphasize that MACH has so much more to offer than the short-term buzz of quick wins. When you approach MACH as a long-term foundation for innovation, and as a shift in mindset about how you work with technology, that's when the real magic happens.



Mark Bartlett

Executive Director for Technology, VML

Join us on the MACH innovation journey

Over the course of the last decade, VML has been helping businesses transition from all-in-one monolithic technology platforms to much more agile composable architectures.

In that time, we've noticed that MACH is perfectly positioned to serve as the "innovation architecture" for the ongoing evolution of your business. To best harness this advantage of MACH to drive your business success, it's helpful to understand MACH through the following three perspectives:

- 1. MACH helps create the context for innovation** – the core principles of MACH architecture foster a culture of innovation by increasing speed and efficiency, and enabling the best solution to achieve any particular business outcome to be easily integrated into the enterprise architecture.
- 2. MACH enables you to innovate as you evolve your legacy architecture** – a composable approach enables businesses to prioritize the components that need to change to drive growth and efficiency, while retaining systems that deliver value, but don't need to evolve as quickly.
- 3. MACH serves as the foundation for your organization's innovation architecture.** Innovating with MACH takes place when companies have completed the organizational and mindset shifts that composable approaches demand, not just the technological shift. This is when businesses can leverage the principles of MACH to drive significant gains through solutions developed and deployed to best drive business outcomes and meet the needs of their customers.

Let's dive into each of these three perspectives one by one, highlighting examples, benefits and considerations for each, so you can establish a foundation for innovation and continuous improvement.



Creating the context for innovation

Businesses are feeling under more pressure than ever to put innovation at the heart of their business. Even more than that, they're feeling the pressure to innovate at speed.

This pressure is coming from increased competition in digital markets. But it's also coming from heightened user and customer expectations. VML's 2025 Future Shopper Report reveals that 59% of consumers globally say they are more likely to purchase from brands that are digitally innovative. And according to the MACH Alliance's 2025 Global Annual Research Report, 93% of global IT decision-makers feel customer and end-user expectations are increasing all the time, and a similar proportion feel that organizations that do not innovate will be left behind.

The same report shows that an organization's bottom line will benefit from a continued shift towards MACH and composable technology. Those with less legacy tech are likely to be more competitive as they can free up IT budget and time for innovation, and as a result can have greater focus on generating and meeting customer demand.

The MACH Alliance also found that IT and business leaders are making strong and clear connections between the need to innovate and their desire to embrace MACH. 82% of technology leaders surveyed said this desire had increased over the past year, and 57% said the ability to innovate faster is a key driver for adopting MACH architectures.

MACH architectures boost the speed of innovation because they allow you to make incremental changes to a particular app or service without affecting the rest of the environment. This is ideal for development approaches like rapid prototyping. Working in an incremental way also helps development teams get closer to business objectives, which increases the chances of innovations paying off.

As such, MACH is no longer being spoken about as a differentiator just in IT circles. Increasingly, it's viewed as something that can make a difference across the entire business.

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The conversation around MACH has gotten bigger. We're starting to see marketing and business people involved in the discussions around MACH and what it can deliver. Working with MACH is driving change across organizations.



Jason Schlosser

Executive Director Technology, VML

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People who are looking at innovation will be working in a MACH way because it's how modern development works. When you build out your infrastructure in a composable way, you can make incremental changes faster and faster.



Miriam McGinty-Lowe

Head of Engineering, WPP Open

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Innovation with legacy stacks

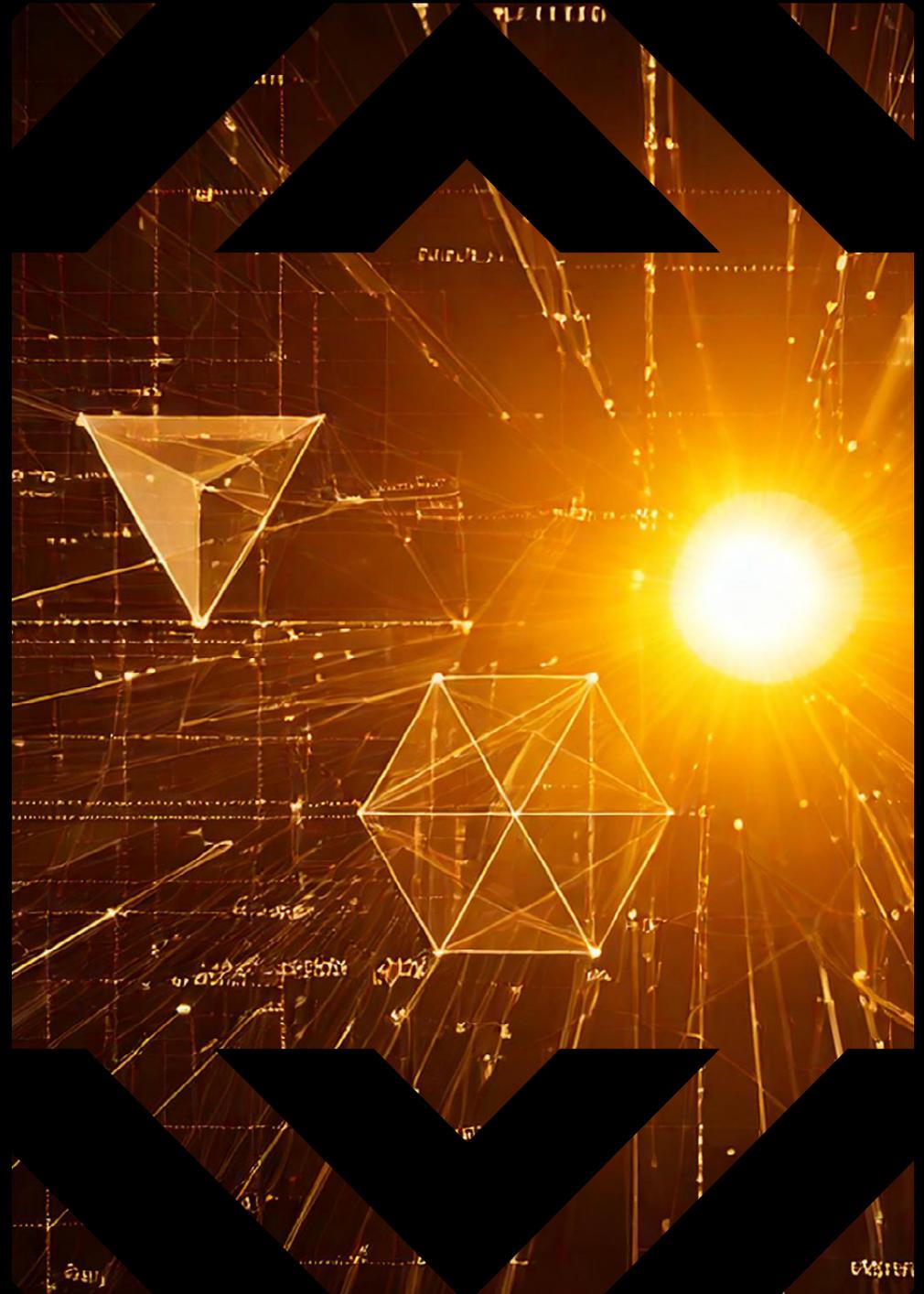
For all that MACH approaches have done to transform our understanding of enterprise architecture, composable is not the only story in town. The MACH Alliance's recent report found correlation between the highest percentages of legacy infrastructure and pace of investment in, and adoption of, MACH, suggesting that organizations that feel behind the curve on composable approaches are sensing a keen pressure to catch up.

Yet change for change's sake is not the goal here. And by and large, that's a message most businesses understand. Larger enterprises invariably still run legacy IT infrastructure that they have no intention of replacing until there is a clear business case for doing so. But that isn't getting in the way of their ambitions for innovation.

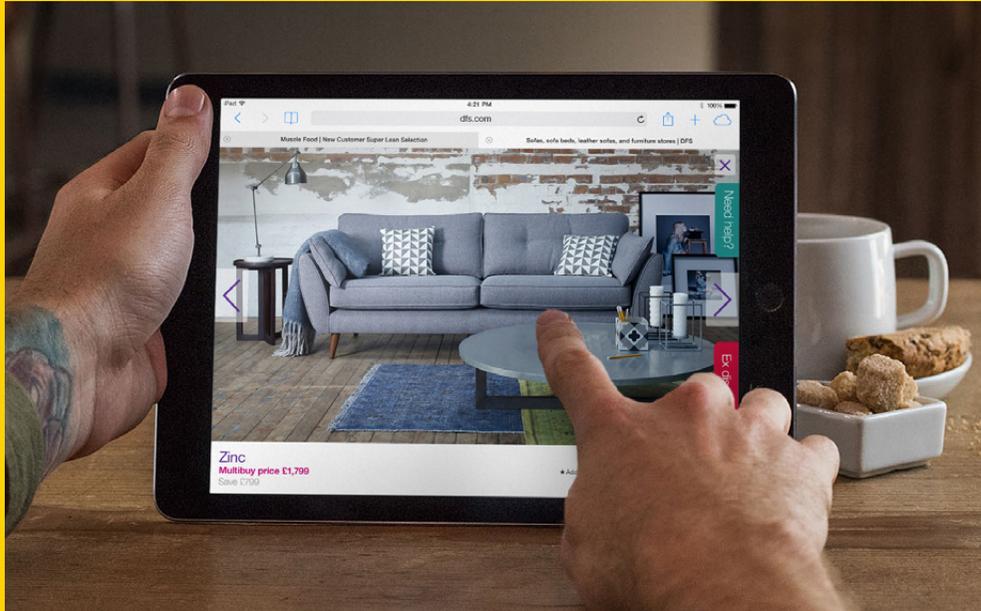
So, what does innovation with legacy architecture look like? This is where the flexibility of MACH really pays off. When it comes to MACH adoption, iteration is the key to success. You don't have to do the whole thing at once as you once did when deploying monolithic systems.

You've likely already identified high-impact features or functions and have iterated those into a composable architecture already. Systems, features or functionality that do not need to evolve as quickly can remain in place, freeing up resources to focus on priority areas of innovation that will drive the most business value.

For example, back-office financial systems or supply-chain integrations can be abstracted to a service layer and integrated into your composable front-office architecture, placing the innovation closer to the end users to drive value and retaining consistency in your back-office operations. Over time, you can then iterate those legacy, back-office systems as well, but at a slower pace and decoupled from features that drive the customer-facing experience.



Client case studies



DFS

Helping the furniture retailer on its journey from a legacy commerce stack to a modern MACH ecosystem

Furniture retailer DFS is a long-standing client, and over the past 10 years, VML has been on a journey with them, building what is now a fully composable, modern MACH environment around an existing monolithic commerce platform that still sits at the heart of its tech stack.

This has seen us work with a number of partners including AWS, Algolia, Fluent Commerce and Amplience to deliver on this ambition.

Pushing forward with composable solutions and applying MACH principles to wider areas of the business has allowed DFS to leverage data in numerous ways, from improving service and customer experience to opening the door to new revenue streams. Overall, the commercial optimization achieved during the course of the journey has seen platform revenues increase by 133% since 2020.



Giant Tiger

Supporting the digital transformation of the Canadian discount store chain

VML supported the largest transformation of Canadian discount store chain Giant Tiger by replacing the end-to-end stack and replatforming to Shopify. We introduced middleware with a portal for in-store pickup, pick & pack operations, and shipping integration, addressing challenges like BOPIS and geo-localization.

Working with partners Contentful, Algolia and Akeneo, this MACH-based overhaul has helped to modernize operations and enhance customer experience, marking a new era in discount retail, or, as Simon Rodrigue, SVP & Chief Digital Officer at Giant Tiger put it: *“Building out an experience to help Canadians save with a smile”*.

MACH as your innovation architecture

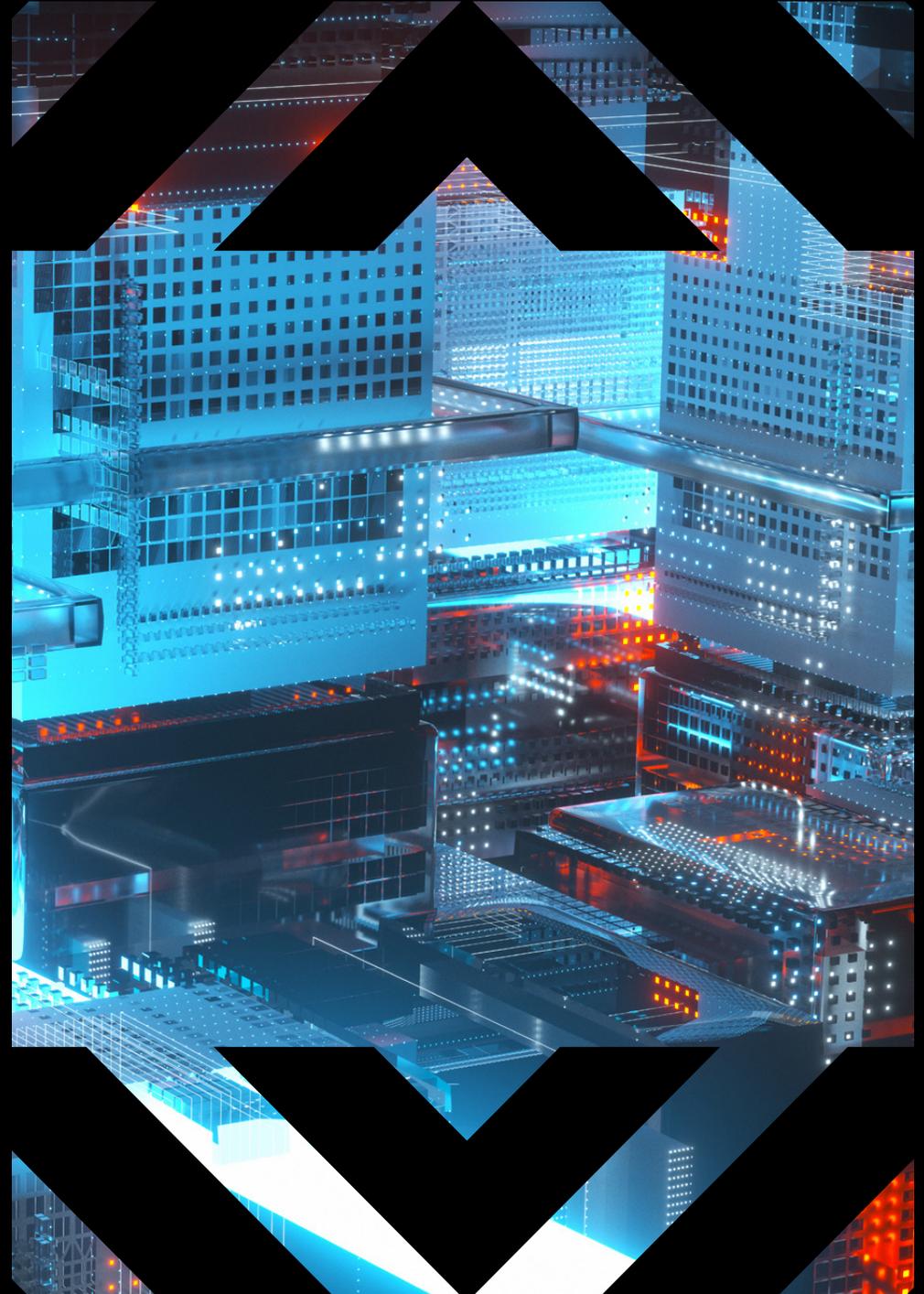
MACH, in itself, doesn't create innovation. It doesn't magically deliver features and functions that push your business forward.

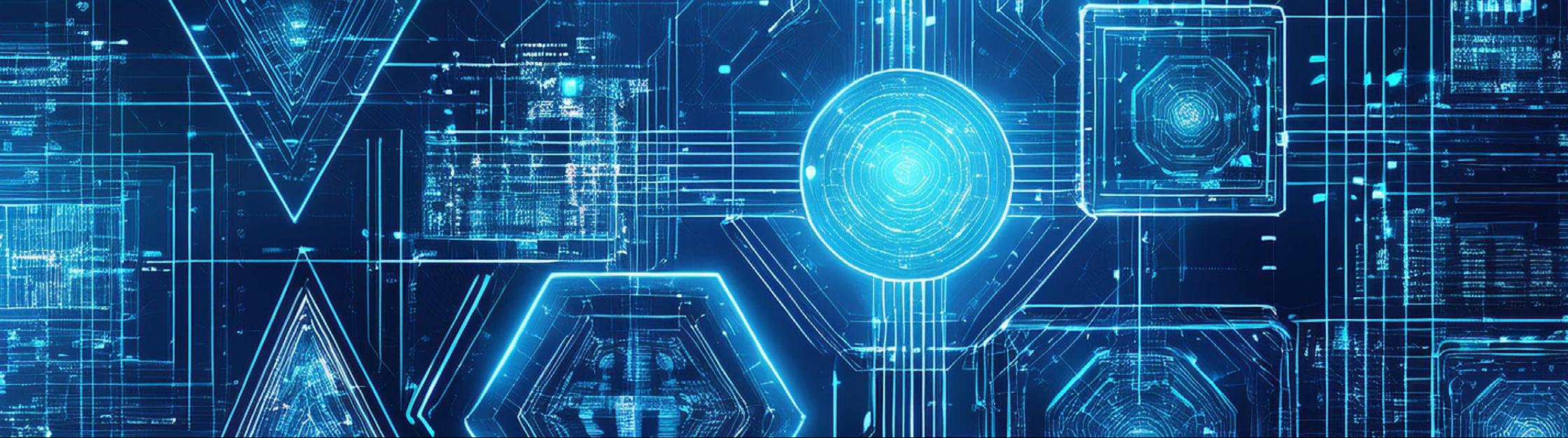
"It can create an innovative microservices environment that does amazing things within an organization," says Mark Bartlett. "But it's neither innovative nor amazing just because it's MACH."

What a MACH approach does do is provide a foundational architecture that is oriented towards continuous improvement and provides a platform for innovation. It strips away technological and operational barriers and allows organizations to focus on outcomes and features that drive measurable business results.

In businesses that have already "piloted" and proven the value of a MACH approach at the edges of customer experience, we now see MACH being applied to critical business domains such as: marketing automation, CRM, PIM, OMS, MarTech and AI.

The focus of an innovation architecture is on a family of connected services that collaborate to deliver the experiences and outcomes your customers deserve. At the same time, iterative delivery of new or newly optimized services speeds up to the point where you don't really have the concept of fixed "big bang" releases anymore. What you have instead is continuous change in response to need, continuous improvement, continuous innovation.





Let's look at some key areas where the MACH approach serves as your innovation architecture:

1. **Event-driven frameworks**, where you replace linear processes with simultaneous data-sharing across multiple applications, based on the creation of an accessible data 'event'. This improves responsiveness, scalability and agility, while establishing workflows that complete in near real-time.
2. **Advanced personalization**, where you enable data-driven tailoring of the customer experience to the individual user based on known preferences and behavior, ultimately unifying the experience across all channels and touchpoints.
3. **Enabling AI**, across the entire tech stack and customer experience. For example, plugging large language model generative AIs like ChatGPT into your infrastructure to power next generation 'smart' help assistants and chatbots to handle customer queries, or leveraging agent-to-agent interactions to build relevant customer segments to test and improve messaging and offers.

In terms of benefits MACH at the core of your innovation architecture makes it easier to integrate new technologies. The further you go with composable architectures, the easier it is to plug in other innovation enabling technologies like AI to have maximum impact.

Another benefit to high availability and high resilience. No system is immune to downtime, but in a distributed system, one component going down doesn't drag the rest with it. Advanced MACH architectures lend themselves to highly resilient software with excellent error handling, ensuring that the innovative features you are deploying to your customers continuously deliver their intended results without critical failures.

And finally, MACH creates cost efficiencies to help prioritize your investment in innovation. With cloud and service-based architectures, you start to reduce your reliance on infrastructure through things like serverless cloud. With autoscaling and pay-on-demand subscriptions, what costs you do incur are based only on what you use, not a fixed cost that has to pre-plan for capacity.

Client case study

T-Mobile

We built T-Mobile's first entirely cloud based data collection platform, a solution designed to improve and personalize customer service with real-time consumer insights. The platform has provided data collection uptime of more than 99.99% over several years, with millions of dollars in business savings achieved through outcomes like reductions in call times and better handset diagnostics.

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As organizations go further with their MACH journeys, we find more and more reaching out for support. It's often a case of, 'we've built this thing, now we need help operating it'. That's fairly normal when you move on from building more mature MACH environments to trying to gain the optimum operational advantage; you discover different challenges in a MACH environment compared to running a monolithic platform. So that's an area where we work very closely with client teams, on areas like upskilling, but also providing managed services to help with the management of what is now a much larger ecosystem built up of multiple partners.



Nick Harry

Chief Technology Officer, VML EMEA

E: nick.harry@vml.com

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Client case study

B2B rental company

Customizing connections between digital services to drive a better CX for a major B2B rental company

The organization uses digital presence platform Yext to manage listings and local site content for its high volume of branches across North America and Europe. It had originally built a custom API connection directly to Yext and a separate API connection to its Drupal CMS. This eventually led to inconsistencies between the central website and local listings.

VML was challenged to create a single data flow to improve consistency of data and internal processes. Working closely with Yext and Drupal, the new APIs we built enabled levels of customization that weren't possible previously, and allowed for easier updates for new branch types, removing manual processes to launch listings, and providing better visibility into current locations, new locations, and closures moving forward.

In 2024, the company's multi-million local listing impressions through Google were directly attributable to revenues exceeding \$6.5+ million.





Ultimately, MACH is an enabler of innovation, not innovative in and of itself. It can be a means of revolutionizing your performance, creating meaningful and impactful customer experience and driving significant cost efficiencies. But, as with any tool, you have to know how to use it to get those benefits.

So, what are your next steps for ensuring MACH can be your architecture for innovation? Here are five things you can do right away:

- 1 Review your business strategy** and understand what the key drivers of innovation are for your organization.
- 2 Involve your tech team in discussions** about which applications, features and functions are best positioned to drive innovation, and which can remain in their current state a bit longer.
- 3 Consider the success metrics of your current MACH initiatives.** What are the key lessons learned? How can you ensure your next set of MACH priorities can outperform those that came before?
- 4 Weigh up the operational culture of your business.** What needs to change to ensure you can fully embrace, and therefore get maximum value from, innovation?
- 5 Finally, talk to a specialist partner like VML** who can provide strategic and practical expertise from the start to the finish of your innovation journey, and see the big picture of solutions that deliver outcomes for your business.



Continuing your MACH journey

If there's one thing we've learnt in more than a decade helping clients to step into MACH environments, there are no shortcuts to success.

A composable approach to commerce and experience technology offers rich rewards – agility, control, cost efficiencies, the freedom to make innovative ideas happen and really hone in on delivering the best possible experience for customers and users. But these rewards don't come overnight. It's not just your approach to technology that must change.

Decoupling different functions and services is just the start. The long game involves significant operational change, shifts in workflows, internal relationships, even how you fund IT. That also means significant change for your people, who will be asked to work in different ways, with different tools and in a different kind of IT environment. It's essential you take them with you on that journey and empower them to succeed with appropriate upskilling and development.

How VML can help

For all these reasons, if you want to make a success of your MACH journey, we strongly recommend finding a partner who can help you on the way.

At VML, we have the experience, the track record, and the end-to-end capabilities to help establish and guide you along your innovation roadmap, right the way through to operating in a continuous state of innovation in a fully composable technology ecosystem. We've done it many times before.

More than anything else, we take a pragmatic approach to MACH. Delivering value against your business goals comes first, no matter how that is achieved. We don't advocate change for change's sake – to us, it's the experience we deliver to your customers, which drives your business growth, that matters most, not the latest and greatest technology. When you combine that with a rigorous approach to engineering, expertise in service-led architectures, and a sharp focus on scalability, reliability, security and observability, you get a recipe for driving success in the long term, not just ticking off quick wins.

Ready to find out if you're ready to embrace MACH as your innovation architecture? We're offering a free, no-strings-attached consultation to review where you are on your journey to innovation, and highlight the next steps to take.

→ Get in touch [here](#) to find out more.



About VML

VML is a leading creative company that combines brand experience, customer experience, and commerce, to create connected brands that drive growth.

Underpinning all of this is VML Enterprise Solutions, bringing together our consulting, technology, data and innovation capabilities. Over 9,000 employees across VML's key offices and local markets contribute to the Enterprise Solutions offering to deliver on the increasing market demand for applications of AI, technology-driven transformation and operational efficiencies, brought to life via robust technology solutions.

The agency is celebrated for its innovative and award-winning work with blue chip client partners including AstraZeneca, ColgatePalmolive, Ford, Microsoft, Nestlé, The Coca-Cola Company, and Wendy's. VML is recognized as a Leader by Forrester Wave™ reports for Commerce Services, Marketing Creative and Content Services, and is a Strong Performer in the Forrester Wave™: CX Strategy Consulting Services.

VML's global network is powered by 26,000 talented people across 60-plus markets, with principal offices in Kansas City, New York, Detroit, London, São Paulo, Shanghai, Singapore, and Sydney. VML is a WPP agency (NYSE: WPP). For more information, please visit www.vml.com, and follow us on [Instagram](#), [LinkedIn](#), and [X](#). [#WeAreVML](#)

Connect with us

E: MACH@vml.com