5 Things to Consider Before Committing to Composable Architectures

By Brian Browning

PART 1: The Rise of the Composable Suite

Anyone who is paying attention to the world of content and commerce management has seen the meteoric rise of MACH (Microservices, API-first, Cloud-native, Headless), or composable architecture, and for good reason. MACH solutions are known for their dynamic, flexible approaches to experience development that delivers agility and performance that is the goal of any business who leverages digital channels to interact with, convert and retain customers. In addition, the philosophy of MACH is hard to argue: choose best of breed solutions, have no vendor lock-in, create your assets once and use them anywhere.

To truly realize the benefits of composable solutions requires maturity and a plan for building and growing into these architectures. Many organizations don't have the ability to simply commit to composable and convert legacy systems to more modernized approaches and instead, must consider new, hybrid methods to slowly migrate to composable architectures, leveraging composable suites instead of jumping wholeheartedly into complete rewrites.

There are two new trends we see now driving the composable marketplace:

1. Pure play MACH composable vendors are now creating features and services which tilt more towards traditional CMS platforms. Examples here include Contentstack building the Automation Hub framework and now expanding into front-end hosting with its Contentstack Launch featureset.

2. At the same time, traditional CMS platforms are modernizing their underlying architecture to drive the benefits of composable architecture, using a new approach called a Composable Suite. Optimizely is most notable here in that it offers a new SaaS based approach to delivering its well-regarded CMS and CMP platforms using traditional MACH delivery models.

Not So Easy....

Building a business case can be the key to driving the powerful results found in composable architectures. Starting with Proof of concepts and building them into larger, more impactful solutions is an effective way to both mitigate risk while embracing the power of modernized architectures. One organization we recently worked with embarked on a multi-year journey for their composable transformation. They were unique in that they had the maturity and ability to commit the appropriate resources but it all started by making the business case for composable modernization. Focusing on tangible business benefits in addition to IT and cost savings considerations are key to winning the discussion.

The concept of a composable suite is fairly recent, but builds upon the core concepts of MACH architecture – a modern technology stack that is 100% supported by microservices, addressable through comprehensive APIs, delivered on a fully elastic cloud and delivered on a headless basis. Composable suites follow these exact same principles, but provide multiple feature sets and capabilities rather than asking organizations to pick a tool for each feature they need. This approach still allows companies to select the best of breed and replace any given feature (say, search or personalization), but save time by pre-integrating features that are often desirable together (example: a DAM with a CMS).

Here are 5 considerations that organizations should consider when thinking about the best way to approach and adopt MACH solutions:

Consideration		Composable Suite
1	With traditional MACH deployments, organizations will have to contract and procure with each platform. A baseline content-focused build could easily include content management, search, digital asset management and personalization features, requiring contracting and legal support with vendors providing each of these capabilities.	Composable suites typically bundle multiple features together, simplifying both the integration work and the contracting, legal and procurement activities into a single vendor.
2	Depending on how the composable solution is architected, business users may have to work in multiple tools to deliver a single user experience. That means they have to be trained and become proficient with different UIs from different vendors.	Composable suites can offer a common interface across multiple features, quickening the learning curve and reducing the number of UIs that have to be managed.
3	Selecting individual tools and platforms for each feature also requires that those tools be integrated together, which is typically the province of more mature IT teams and organizations. This also adds to the overall cost and timelines of delivering these solutions.	Composable suites already integrate features together in a predictable, standards-compliant fashion, without giving up the ability to replace a given feature with a new tool if desired. In short, it's the best of both worlds.
4	Most organizations aren't able to fully commit to composable architectures because they also have to maintain what they've built in the past. Building a transition plan takes time, energy and effort.	Composable suites accelerate the ability to support hybrid architectures by streamlining costs and providing a natural path from traditional DXP platforms to modern, composable architecture.
5	An ages-old debate exists about selecting the absolute best of breed versus best of need. To put it simply, oftentimes, the perfect is the enemy of the good. The value of composable architecture isn't necessarily the absolute best of a given feature, but instead, the power, agility and speed improvements associated with a modern technology stack.	Composable suites work to deliver "good enough" features without sacrificing significant additional cost and effort trying to deliver perfection across all times and channels without fail. Composable suites are a vital method for helping organizations to navigate their way to fully composable architecture without giving up the native value of being able to buy the absolute best, when they need it.

A final concern should be considered by organizations seeking their path to embracing composable technologies: the MACH marketplace is fast evolving and typically will see market consolidation through acquisitions and mergers. Implementing individual tools today that could later be acquired may have ramifications across how companies build, maintain and evolve their composable ecosystems. While this is always a concern in the world of IT, it is more likely to be prevalent in this space given the rapid growth and explosion of interest in MACH tools.

PART 2: Three Key Options for the Modern Experience Technology Stack

Companies today have three strong options to select as they think about how to continually deliver persuasive customer experiences, two of which are built upon the concept of composable architectures:

1. **Continue to leverage traditional DXP platforms** – It should be made clear that traditional DXPs still have a place for many companies. They are mature, packed with features and are adequate for a wide number of use cases. Standout examples of trusted DXP platforms include Optimizely's DXP, among others.

2. **Migrate fully to MACH / composable architectures** – If an organization is both a mature IT organization and can take on the commitment to fully embrace its digital ecosystem using pure MACH principles, composable architectures can offer tremendous flexibility and power in a fully modernized technology stack that can adapt for an uncertain future. Best in class examples here include tools like Contentstack, Contentful and Optimizely's SaaS CMS offering.

3. **Progressively adapt to MACH / composable architectures through the adoption of Composable Suites** – The increasing choice for many organizations is to adapt MACH / composable architectures through the use of a composable suite. This saves time and energy for legal, procurement and training considerations, while delivering the power and flexibility inherent in native MACH / composable architectures. Optimizely is an intriguing choice in this marketplace. With the announcement of the availability of their Optimizely Composable Suite, customers are able to deliver CMS and CMP capabilities, with commerce capabilities coming later in 2024.

Comparing the Pros and Cons of Native MACH Solutions, Composable Suites and Traditional DXP Platforms

Native MACH Solutions		
Consideration	**Benefits**	**Drawbacks**
Vendor Management	Allows most flexibility in selecting vendors	Must procure and manage vendor-specific relationships
Business User Interfaces	Each MACH tool has a unique interface; best of breed examples can integrate with other tools (ex: Ninetailed's ability to embed in Contentstack's UI)	Business users must learn multiple UIs and sometimes log into different platforms to access features and capabilities
Tool Integration	Each MACH component should be integrated with appropriate tools within the MACH ecosystem	Core integration work is required at build time and must be maintained as component tools change over time
Migration / Adoption	MACH components can be architected and adopted on an as-needed basis, providing agility and flexibility in how to build MACH-driven platforms	Each component of a MACH ecosystem must be reviewed to determine the most appropriate adoption model
Best of Breed	MACH components align fully with the idea of best of breed selections, especially over time. MACH solutions provide the ability for organizations to change their architecture when a more powerful component becomes available over time	Swapping components requires new integration points and potentially data / asset migration

Composable Solutions		
Consideration	**Benefits**	**Drawbacks**
Vendor Management	Reduces the number of vendors to be managed and procured depending on specific mix of needed features and functionality	Still have additional vendors to negotiate and manage
Business User Interfaces	Reduces number of UIs to learn and manage	Still may need to login to additional interfaces, depending on specific makeup of composable ecosystem
Tool Integration	Reduced number of integration points; simplified and expedited build times compared to native MACH	Non-Suite components must still be integrated separately
Migration / Adoption	Expedited build times, reduced migration and adoption times especially compared to native MACH ecosystems	Non-Suite components must still be migrated or adopted separately
Best of Breed	Best balance of best-of-breed versus best-of-need; allows for flexibility in crafting unique composable ecosystems	Assumes that all Suite components meet expectations and needs for a given project; if not, no value delivered in this approach

Traditional DXP Solutions		
Consideration	**Benefits**	**Drawbacks**
Vendor Management	Consolidates all vendor management and procurement responsibilities to one single vendor	Potential lock-in to a single vendor, often requiring a multi-year commitment making it difficult to move quickly if a DXP isn't viable
Business User Interfaces	Typically, a common UI is leveraged across all DXP modules and feature sets and requires a single login point for business users	Not all DXPs feature unified UIs; many that are the result of acquisitions and mergers suffer from origin UIs that complicate matters for business users
Tool Integration	Most core feature sets and capabilities come pre-integrated, saving development time. It also allows for easy sharing of analytics and insights across functionality (i.e. search activity automatically influences content recommendations), so the effect is magnified beyond simple integration alone to include data sharing	Requires alignment that the full feature set and capabilities of the platform are good enough for the desired outcome. Must validate level of integration and data sharing, as the depth of this integration varies by vendor
Migration / Adoption	Upon re-platforming conclusion, provides a unified, consistent platform for operation and overall enhancement. Streamlined management and consistency of expectation	Requires full commitment to migrating to a unified platform, even in phases or waves. Less helpful if migration is only focused on partial re-platforming of a given digital ecosystem
Best of Breed	Much more focused on delivering a best-of-need model as any given module can be outperformed by niche providers	Still requires customization and integration work if niche providers are included; some wasted energy and effort when replacing DXP functionality with niche provider work. Can also contribute to code bloat for unused features or capabilities

For More Information

Given the complexities and stakes associated with making these kinds of core architectural decisions, we find that companies benefit from working with trusted partners who have experience with multiple approaches to delivering persuasive, composable digital solutions. Kin + Carta is a well-versed team of business experts, user experience pros and technically excellent practitioners of native MACH, composable suite and traditional DXP platform providers and are ideally positioned to help you navigate these complex decisions.

To learn more about DXPs, MACH or Composable Suites, please contact Kin + Carta:

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