

Personalize Content With Headless CMS, Decoupled Personalization and MACH Principles

In our developer workshops, we show just how easy it is to build, integrate, and go to market with personalization when it's based on MACH (Microservices, API-first, Cloud-native SaaS and Headless) principles like those upon which Contentstack, Uniform and EPAM operate.

Below is a summary of the key learnings about personalization for developers:

PERSONALIZATION BASICS

Why personalize content?

Here's why you should care about implementing personalization, in case you don't yet.

- Relevant content makes visitors happy with your digital properties
- Happy visitors have higher conversion rates (buying, signing up, etc.)
- ...Up to 19% higher conversion!

If personalization is so great, why doesn't everybody do it?

Common blockers to personalization:

- 1. People** - your marketing team needs to deeply understand your audience and create content to meet their needs
- 2. Start-up cost** - typically there is a software cost, plus the effort of building to your needs
- 3. Complex rules** - traditional rules-based logic is hard to scale & maintain
- 4. Lack of structured data** - for AI/ML to work on to do the job for you
- 5. Process** - stakeholder alignment & team training takes time

Luckily, MACH personalization technology and SI support reduces the load on the people, the wallet, and the need to create complex rules - so a lot of the blockers are removed.

ARCHITECTURAL CONSIDERATIONS

Types of personalization and their impact on speed

- 1. Suites** - Software that has everything from CMS to DAM to personalization. Rules-based and tightly coupled to vendor; origin-based and thus slower (up to +1s of page load time)
- 2. 3rd-party scripts** - JS files loaded on top of your HTML; works with AI models; DOM overwrite; also origin-based but a bit faster (± 500 ms additional page load time)
- 3. API first** - Decoupled but code ships with your codebase, semi-automated, CMS-based, edge based. (± 10 ms delay)

Considerations when modeling content for personalization

1. **Structured vs Dynamic:** How structured do you want the content to be versus giving flexibility and interactivity? A MACH system allows you to do content personalization with both.
2. **Use Global Fields:** Essentially, content modeling within content. A reusable, useful way to model content.
3. **Think agnostic of channel and touchpoint:** Model content in as small “chunks” as possible, so it's not locked into one channel execution (like a website) but instead that content is prepared for re-use in any channel, whether one you have now or might add in the future.
4. **We want lists!** Personalization works with options—lists of options—so the best one can be surfaced for the visitor based on real-time behavior.

HOW WE HELP



How Uniform works to support personalization

Uniform uses intents and signals from visitor behavior (or cookies, query strings, events, etc) to create a real-time intent profile and show content to match. No segments, no personas, no if-else rules. Content has “intent tags” connected to it in the CMS and based on the intent score created by intent signals, content gets personalized for the visitor's intent on the site. So, instead of placing people in pre-determined buckets like “developer” or “marketer”, the system can dynamically change which content is shown based on the user's behavior on that particular day - it might be a “marketing developer”, for example.



How Contentstack works to support personalization

Contentstack API-first headless CMS allows for information to flow freely between different MACH technologies and expose interfaces (“experience extensions”) within these that make working with content and personalization easy for both marketers and developers. It lets experts be experts in the platforms that they create within, without locking them into a particular way of working. Content from Contentstack easily extends into any channel or touchpoint. This gives flexibility and speed to business teams while providing powerful developer tooling.



How EPAM works to support personalization

EPAM helps businesses implement composable architecture alongside their previous tech stack investments. As consumer touchpoints have become more ubiquitous and the speed of innovation has increased, a MACH-based architecture enables businesses to implement the technologies they need, quickly. From strategy to design and development to support, EPAM's multidisciplinary teams work with enterprises to deliver personalized, seamlessly integrated experiences powered by MACH technologies, while aligning our clients' leadership and empowering teams to elevate their omnichannel strategy.

[Watch our developer workshop](#) to code along with us and see how it works for yourself.