Adobe Experience Manager for fueling experiences— everywhere.

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Executive summary

As customer behavior continues to evolve rapidly, businesses must drive brand engagement or face irrelevance. The need to engage with the customer where they are, build custom interfaces, deliver experiences for connected devices, adopt new interaction modes, and deploy new developer technologies is raising a debate over whether investments in content management systems (CMS) will pay off. These trends have led developer and IT teams to consider headless content management as an option for experience management and delivery. The term "headless" means that content is decoupled from the presentation layer (the head) and is delivered in a channel-neutral format to power any channel or experience.

Adobe Experience Manager serves as a headless CMS, giving developers exactly what they need to do what they do best—build faster and deliver exceptional experiences everywhere, with the option to empower marketers with content authoring functionality. Marketers must balance the ability to efficiently author, manage, personalize, and measure experiences with the desire to create extremely customized experiences that could require high-cost technical resources to manage and measure the experience. Yet, many headless CMSs in the market today don't offer any visual tools to get this done. For such scenarios, we recommend a headless CMS geared toward developers, marketers, and editors. One that can quickly create great experiences, is easily extensible, is context optimized, is scalable as the business grows, and allows content reuse for highly customized experiences—at a lower cost. Experience Manager allows developers, marketers, and editors to author channel-optimized contextual experiences along with a headless content repository for any end point.

Challenge—Developer and marketer expectations.

According to Gartner, nearly half (47%) of organizations plan to boost their investments in the Internet of Things (IoT) by 2023. With this explosion in IoT investments, businesses are tasked with adopting new technologies, managing multiple CMSs, and delivering in a new medium to stay connected with their customers. Today's customer demands a connected experience—and more than ever before, the consumer expects a great brand experience on every device and channel.

Furthermore, with the influx of new developer-friendly technologies (like JavaScript frameworks), developers can create more customized front ends that use content decoupled from its presentation layer, using languages and programming frameworks they're already familiar with so they don't have steep learning curves. This means that developers control experience authoring and composition by reusing core content for their front-end experiments. This process demands that a CMS be able to power multiple channels and experiences. It requires a decoupled (also known as "headless") CMS—content separated from the presentation logic. However, typical headless CMSs today don't offer robust authoring services required for marketing teams to author, edit, and create the content experiences customers actually see.

Yet, marketing teams are expected to deliver nimbly on their cross-channel campaigns, with the need to quickly set up and operate in near real-time speeds. With 10 times more content needed per channel, marketers must quickly source, reuse, and deliver great content for that particular interaction. A traditional CMS can hinder developers by ensuring they follow languages, patterns, standards, and rules set by the CMS, which can restrict flexibility, increase code complexity, and reduce maintainability. Typical headless CMSs lack features and functionalities for the marketer like visual editing and live previews.

Developers who originally wanted to focus exclusively on building and delivering world-class applications are now tasked with handling all content updates, edits, and additions, while the marketer is now reliant on developers to ensure changes are made in a timely fashion.

The challenges placed on developers and business teams require companies to take a different approach to the CMS and its supporting services. A headless CMS is a content management system that doesn't have a user interface or presentation/rendering layer and delivers "raw" content to various channels or rendering engines via APIs in the form of JSON (JavaScript Object Notation). The "head" of a CMS system refers to the presentation tier or front end. "Content as a Service" follows this same principle of a content hub that acts as a service to content consumption end points.
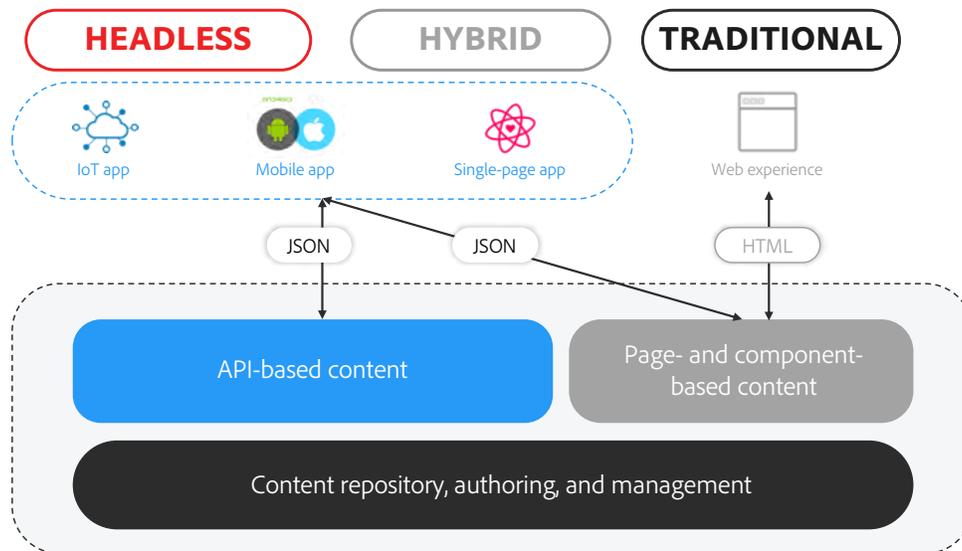
Figure 1. Experience Manager provides flexible content delivery models to meet the needs of marketers and developers.

Choose the right headless CMS.

Headless CMS point solutions in the market today provide many benefits with content reuse, yet those may be offset by the challenges that teams face by creating every end point from the ground up. Marketers and business leaders considering these niche headless CMS players should evaluate the viability of the solution based on the following challenges and questions:

- **Content authoring**—Composing, previewing, and publishing content in a user-friendly environment as opposed to scheduling changes in complex developer tools. Who owns the customer experience, the author on the marketing team or the developer on the IT team?

- **Content management**—How design and layout changes will be managed across organizations. How fast can you make changes, and how long it will take to test, QA, and publish? Can the content author test experiences? Do authors have to learn, adopt, and hire additional resources to manage developer tools?

- **Personalization**—Does one size fit all? How will you create personalization logic for each and every end point? How will you add more experiences as new customer segments come up? Who is responsible for A/B testing? Can it scale to the nth degree with machine learning algorithms?

- **Analytics**—Will you be able to measure all experiences and interactions? Will you have multichannel attribution models to understand the impact of each engagement across channels?

- **Total cost of ownership**—Will this niche headless CMS replace all current CMSs? How will this impact content authors and the marketing team? What is the true cost of multiple CMSs, for example, resources needed to manage experiences, time it takes to manage changes, limitations within each CMS, and cost of execution delays?

- **Security**—Whether the data and content will be secure if you use public APIs. Who is managing the security and access controls of the entire system?

Solution—Next-gen headless experience management.

Experience Manager headless CMS is architected to solve this paradigm and addresses the gaps in typical headless CMSs today. With the unique and flexible headless approach offered by Experience Manager, business users and developers have the tools they need to build for constantly changing consumer expectations. Developers can reuse content and access it in a headless way to create custom front ends with the tools of their choice—giving them the freedom to build faster and deliver exceptional experiences.

Marketing organizations can create and manage fully context-optimized experiences they can scale easily across products, services, organizations, and geographies without any technical dependencies. Only Adobe's approach addresses the entire complex spectrum of needs that brands have in the modern world, supporting agile headless content management and sophisticated, personalized experience management.

Experience Manager headless CMS helps companies meet omnichannel demands by leveraging a headless architecture that separates:

- Core content management that is channel and presentation agnostic
- Context-specific presentation authoring and management
- Content and experience delivery optimization

> " Although 'headless content management' has become something of a buzzword, global organizations are increasingly seeking systems that are not only purely headless, but that can also provide head-on and head-optional capabilities from the same platform.
>
> **Mick MacComascaigh,**
> Research Vice President and Coauthor
> of the WCM Magic Quadrant, Gartner

Experience Manager is a Leader in both the Forrester Wave for Web Content Management and the Gartner Magic Quadrant for Web Content Management. Adobe is also a Leader in the Forrester Wave for Digital Experience Platforms. With thousands of brands using Experience Manager, we have seen and thought through the challenges faced by companies that need to accelerate innovation to keep pace with digital disruption. We understand the flexibility, scalability, and agility needed in a content management and delivery solution to support the wide range of digital experiences that customers demand.

Experience Manager headless CMS allows brands to:

- Build and deliver connected experiences faster with powerful and comprehensive GraphQL APIs
- Boost productivity and create and customize workflows that work for developers with an extensibility framework and integrations
- Easily scale connected experiences everywhere with flexible frameworks while ensuring web performance
- Source the best content—across brand creative teams or imported from existing repositories
- Manage content in an omnichannel manner so it can easily flow into any end point, be it a mobile app, IoT device, in-venue screen, single-page application (SPA), or service
- Compose experiences that adapt and become personalized with easy-to-use tools and guidance from AI and machine learning

Many headless CMSs today don't fulfill the needs of high-velocity, agile, experience-led developer and marketing teams. Without a holistic approach, businesses can quickly run into issues with asset management, access control and security, workflow management for authoring and publishing, versioning, translations, personalization logic, and experience authoring and previewing. Experience Manager headless CMS offers intuitive and comprehensive APIs to deliver Content as a Service, and it gives developers and business users the ability to build, deliver, and scale experiences faster while creating the system and workflows that developers and marketers want, solving the challenges that typical headless CMSs often present.

Regardless of how it's used, one of the greatest benefits of Experience Manager for any organization is its ability to manage experiences from one central platform, significantly minimizing workflow complexities. Starting with one unified authoring environment, you get the benefit of being able to compose all your experiences in a user interface that is intuitive and powerful for both technical and business users.

To deliver digital experiences everywhere customers expect you to be, organizations need not only technology and architectures that support omnichannel experiences, but also a solution that allows cross-functional teams to work together easily. Experience Manager headless CMS provides the support to help companies foster this partnership.

Adobe Experience Manager headless CMS—A cut above the rest.

Today's niche headless CMS players offer an incomplete solution. A complete digital experience management solution needs to have more than just the architecture and capabilities that allow organizations to choose which services to leverage based on a specific content challenge. It must also include tools and resources in each area to make the experience easy to build and operate at scale. While Experience Manager provides a headless CMS that focuses on the needs of developers as well, it is also designed to foster collaboration between business users and developers and provide easy access to the solution, minimizing any bottlenecks. When a headless architecture is paired with useful tools for both developers and business users, full-value realization can be achieved.

Discover how you can build and deliver exceptional omnichannel experiences with the headless capabilities of Experience Manager.

Learn more