



Hybrid CMS

The next generation of
the headless CMS

Everything you wanted to
know about hybrid,
headless and decoupled
content management
systems



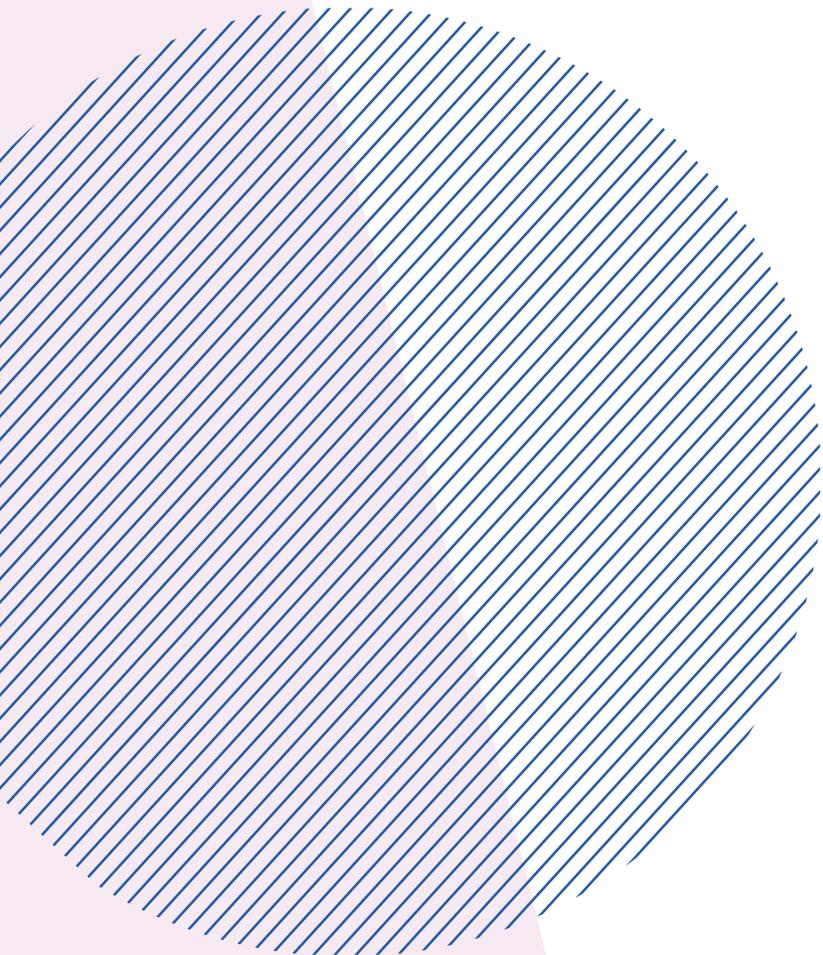


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The next generation of the headless CMS

Everything you need to know about hybrid, headless and decoupled content management systems.

Content management systems (CMS) have been in use for more than 25 years, but only recently has the concept of “headless CMS” become popular. Headless CMS is revolutionizing digital experiences across a wide range of digital channels and devices. A headless CMS improves your company’s ability to deliver these experiences for your customers, wherever they may be, and do it much faster!

However, today’s pure-play headless CMS still lacks many of the core capabilities of a “traditional” CMS, such as:

- ✗ Support for workflow and collaboration
- ✗ Ability to scale content management across multiple brands, countries and languages
- ✗ Ease of use for non-technical users
- ✗ The interoperability required to enable a next generation digital experience (DX) ecosystem

These are all essential capabilities for today’s digital business, and you won’t get them from a pure-play headless CMS. The good news: there is a way to get the best of both traditional and headless CMS...

A hybrid headless CMS is the next generation of content management. It combines all the advantages of a headless CMS with those of a more traditional enterprise-class CMS.

A HYBRID CMS WITH HEADLESS AND “DECOUPLED” CAPABILITIES WILL ENABLE:

AGILITY

- Rapid deployment within your ecosystem with prebuilt interoperability and REST APIs.
- Future-ready for any channel or device, enabling content to be pulled into SPAs, PWAs, conversational platforms, digital signs or IoT devices.
- Faster updating of user experiences.
- Frontend delivery devices (“head”) can be added or modified without any modifications needed to the CMS (“body”).

EMPOWERMENT

- Ease of use. Empower non-IT users to rapidly learn how to use advanced CMS capabilities without coding, including viewing AND editing any channel’s experience.
- One source of content truth. Content is orchestrated globally using a hybrid CMS.
- Unified customer view. Modernize the technology stack to get a unified view of the customer to make product content more engaging, and B2B and B2C e-commerce experiences more relevant.

SCALABILITY

- Your CMS will grow with your needs including enabling new devices and channels. For example, a B2B manufacturer decides to provide content to additional resellers and/or direct to consumers through any channel, device or application across the world.
- Support new business models as your company grows by simplifying technical complexity and reducing time to market.
- Enter new regions, countries, languages and other segments.

In this eBook, we answer the most common questions from both technical and non-technical audiences about hybrid, headless and decoupled CMS:

- What do headless CMS and Content-as-a-Service (CaaS) mean?
- How is a headless CMS different from a traditional or decoupled CMS?
- What role does Content-as-a-Service play?
- Why is a hybrid CMS the next-generation headless CMS?
- What are the business and technical benefits of a hybrid and headless CMS?
- What are the key criteria for selecting a hybrid CMS vendor?

The purpose of a CMS is to help developers, designers, editors, marketers and e-commerce managers create and manage digital content to better drive engagement and revenue.

There are many different types of CMS, each with their own strengths and weaknesses. And with the evolution of technology, the increase in available channels and devices and the growing number of hypercompetitive markets, a reliable, flexible and scalable CMS is more important than ever for enabling and simplifying content-driven digital experiences.

Types of Content Management systems:

Traditional CMS, headless CMS and hybrid headless CMS

This ebook explores enterprise-class CMS needs for mid-to-large companies that have any of the following requirements:

- Scalability to meet complex organizational needs
- Ability to differentiate through design and digital experience
- Integration across multiple systems to build a digital ecosystem
- Support for omnichannel digital experiences (e.g., mobile, mobile applications, tablets, digital signs, kiosks, social media, marketing automation systems, voice-activated systems, smart watches, virtual reality devices)
- Multilingual and multisite management
- Make regular updates to websites and other digital channels for usability and security
- Support collaboration across functions, countries and/or business units for the creation and delivery of content.

Read IDC Marketscape report [here](#).

What is the difference between backend and frontend for a CMS?

A typical enterprise-class CMS includes two major functional areas: a backend and a frontend. In a traditional, “coupled” CMS, these two functions are part of the same vendor platform linked through custom code.

BACKEND FUNCTIONALITY:

- **Storage:** A database is used to store content and digital assets. A digital asset management (DAM) system may be integrated with the CMS, and/or this may be part of the CMS.
- **Content Creation:** An editor interface enables non-technical staff to create and edit content.
- **Workflow and collaboration:** An enterprise-class CMS enables large, multinational organizations to collaborate across business units, regions and functions for content creation, reviews, approvals and translations as needed.
- **Developer and designer interface:** Developers and designers have the capability to create and edit templates and modify digital experience designs.
- **Backend code:** Developers create code and/or utilize vendor-provided templates that serve as the foundation of the backend application functionality. For example, code that enables form submissions and interaction with databases and other applications.
- **Administration:** Technical and non-technical staff use this area to manage the CMS application.

FRONTEND FUNCTIONALITY:

- **Content delivery and presentation:** This is where the entire experience created in the backend is delivered to the end user. Some parts of the site structure and style may also be created in the frontend either with or without backend interaction. (e.g., HTML, CSS)
- **Input collection:** The frontend is responsible for collecting input from the end user, which dictates the user experience that is realized, either with or without communication with the backend.
- **Frontend code:** Developers create code which sits in the front end to manage communication with backend systems, control the user interface for the end-customer, and enable execution of applications that do not require a direct interface with backend systems. For example, in the frontend HTML controls layout on a website, the design is controlled by CSS, and basic interaction would be enabled through JavaScript. Single page applications (SPA) and progressive web applications (PWA) are increasing the level of innovation available to developers in the frontend and the richness of end users’ experiences.

The traditional CMS

The first CMS was monolithic, combining the frontend and backend in a single platform. This worked, initially, because they were developed to support only one type of channel: websites.

In a monolithic CMS, the frontend accesses content from a database in the backend, and all content is published to the website in the predesigned layout.

With the rapid increase in mobile applications, web-based applications, digital signage, wearables and many other channels that reach far beyond the personal computer, a monolithic CMS has become cumbersome and detrimental to business growth.

They require significant resources and cost valuable time because every additional new channel requires new content delivery and presentation templates to be created by developers and designers as well as other related frontend coding work.

The greatest disadvantage of a monolithic CMS is its lack of modularity. This makes it difficult to reuse application code. And because it's all part of a single program, regular maintenance tends to disrupt application usage.

Other disadvantages of traditional, monolithic CMS, include:

- Significant challenges in supporting new business opportunities, such as new channels and frontend applications (e.g., single page applications or progressive web applications).
- Inability to support go-to-market in a cloud or Software-as-a-Service (SaaS) environment as they were built on-premise
- Designed mainly for developers, which significantly impacts ease-of-use for non- technical users, creates backlogs for technical support and hinders companies' agility to respond to market demands

To overcome these challenges and enable companies to be more responsive to market demands, newer, more flexible types of CMS have emerged.

Traditional, Monolithic CMS: One Platform, More Channels



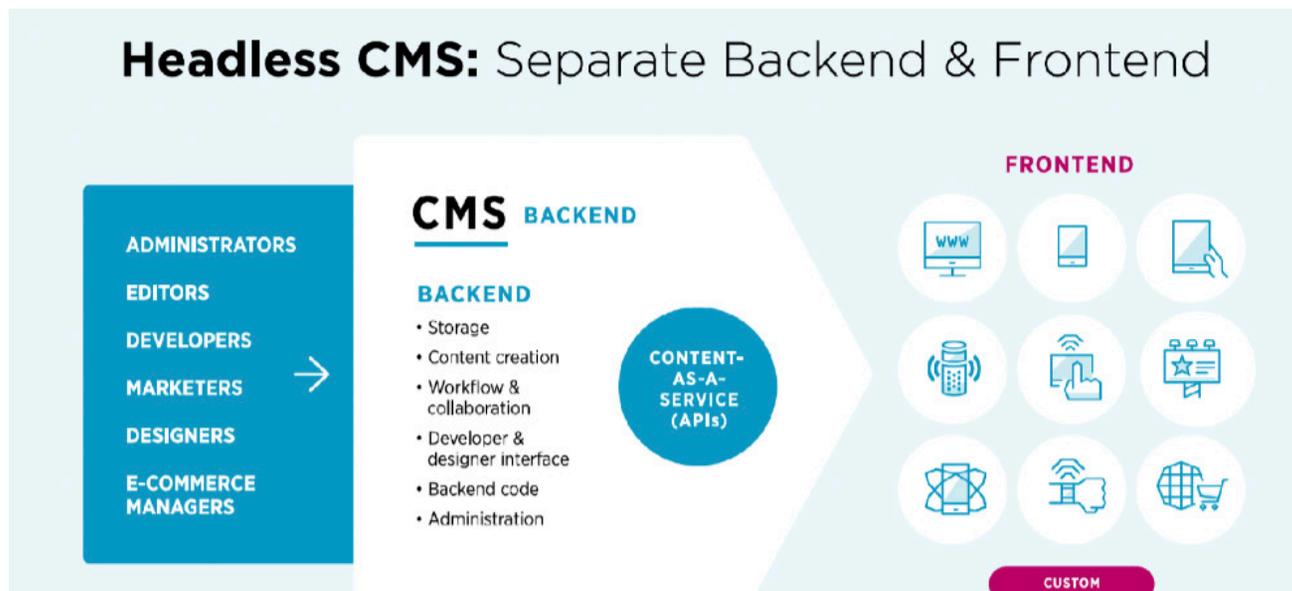
Headless CMS

What is a headless CMS?

A headless CMS enables the creation and management of content (i.e., the “body”) while giving responsibility for content presentation/layout to the delivery channels (i.e., the “head”). Content is no longer pushed out to a channel in a predefined manner. Instead, content is pulled or requested from the CMS by any channel with modern APIs (Application Programming Interface) such as REST. This enables each individual channel to leverage its own unique presentation capabilities. A REST API uses the internet protocol HTTP to request data from a data source, in this case, the CMS.

In a pure-play headless situation, the headless CMS doesn’t generate any frontend code. It provides content as a service, which is why headless CMS is sometimes referred to as “Content-as-a-Service” (CaaS). This process results in the best available digital experience for the end users of a particular device since frontend developers are able to continue developing new functionality for any channel independent of the core/backend CMS.

Since 2016, interest in headless CMS has skyrocketed, and the trend continues.



Why are headless CMS capabilities needed and how is it different from a traditional CMS?

Headless CMS is becoming increasingly popular. This is because we live in an omnichannel world and headless CMS allows you to support any channels that are available now or in the future. This is known as omnichannel content management.

A headless CMS gives developers, marketing teams, content managers, website managers, and e-commerce managers the ability to create more engaging and interactive experiences for customers. This can be achieved quickly and with minimal investment, reducing your time to market and giving you a competitive advantage.

Are you burdened with a traditional, monolithic CMS that's inflexible, resource-heavy and can't support all the new channels you need? A headless CMS can help you to:

CREATE AND DELIVER CONTENT-DRIVEN DIGITAL EXPERIENCES ON ANY CHANNEL

A headless CMS, by nature of its backend design and use of APIs, can provide access to content for any frontend/channel. The same content can then be used across any and all other channels, including mobile, mobile applications, tablets, digital signs, social channels, wearable devices, voice-activated devices, Internet of Things (IoT) devices) and more.

Make fast updates to the user experience (UX)

Changing the user interface (UI) of a channel at the frontend of a traditional, monolithic CMS is difficult, time-consuming and costly. With headless CMS, the UI can be changed without changing the underlying (headless) CMS implementation, thereby increasing digital experience agility.

LEVERAGE THE MOST INNOVATIVE AI FRAMEWORKS

The best way to optimize digital experiences is to give frontend developers the most advanced frontend tools. In a headless CMS architecture, developers can easily use these advanced tools on any channel or device (frontend) with little to no impact on backend functionality. Two examples of this are the use of single-page applications (SPA) and progressive web applications (PWA).

- SPA: A website or web application located on a single page is dynamically updated i.e. regular full-page loads from a server are no longer necessary, and only part of the site is dynamically updated. This enables the creation of more consistent and more engaging user experiences.
- PWA: A web application that loads like regular web pages or websites but offers the capabilities for working offline, push notifications and device hardware access traditionally available only to native applications.

OVERCOME TECHNICAL OR SCALE LIMITATIONS AT THE FRONTEND

Frontend applications may have UX or technical limits, such as limits imposed by e-commerce applications or portals, that can result in negative business consequences or higher costs. Headless CMS offers the opportunity to bypass these limits.

The following table summarizes the key market drivers for headless CMS and the advantages of its deployment compared to a traditional CMS:

Market drivers for headless CMS	Headless CMS advantages
Buyers want to stay connected across multiple devices, and each device enables a unique digital experience for end users – and a new way to drive revenue.	Omnichannel management: A headless CMS can provide content for display and use on any number and type of channels. New channels and devices have unique needs. A traditional CMS might not meet the unique needs of a new device, making it difficult to optimize the experience on that device.
Increased competition	Agility, faster time to market: A headless CMS can enable marketers to focus on creativity, while developers can focus on delivering the best digital experience, improving team productivity and overall success.
Increased organizational complexity	Reduce digital complexity: Multiple content authors across different functions in an organization can use the same CMS for creation and delivery of content to any channel. Content is centralized within a headless CMS.
Increased technical complexity	Reduce digital complexity: Developers can refresh the frontend presentation layer without developing an entirely new CMS. A headless CMS facilitates the use of a microservices architecture as well as easier integration within an expanding digital technology ecosystem. This reduces reliance on CMS vendors for complex technical modifications.

In a headless CMS scenario, the frontend creates the layout and presentation layers.

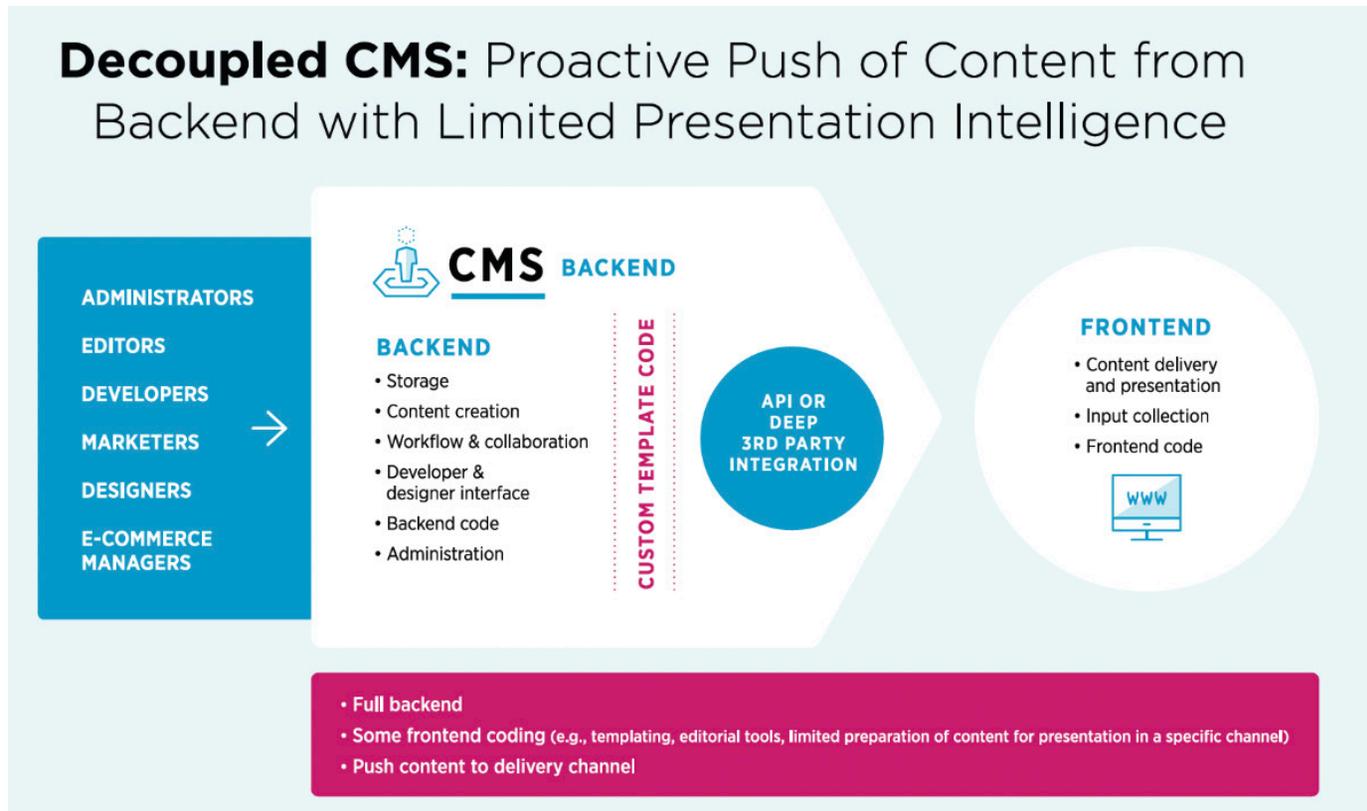
This may be accomplished by interactive Javascript frameworks (e.g., Vue, React), static site generators (e.g., Jekyll, Hexo or Hugo), mobile applications (e.g., Mobify) or another CMS.

(TIP: Ensure your headless CMS enables view AND edit of experiences in any frontend).

Decoupled CMS

What is a decoupled CMS versus a headless CMS?

A decoupled CMS provides the full backend capabilities of a traditional CMS with limited frontend capabilities or presentation intelligence (e.g., coding and templates for presentation). Content in a decoupled configuration is pushed into the channels.



A headless CMS is good, but a hybrid headless CMS is better

Pure-play headless CMS solutions offer significant advantages over the traditional CMS, but come with their own disadvantages:

- ✗ Inability to support enterprise-class needs
- ✗ Lack of personalization capabilities
- ✗ Inability to support deep integration into channels when needed.
- ✗ Lack of preview AND edit capabilities into digital devices for better omnichannel management.
- ✗ Relatively poor ease-of-use capabilities for managing content across multiple brands, business units, countries, languages, etc. For example, some pure-play headless CMS enable ease of use by non-technical users.

If you're looking to optimize your end users' digital experiences as quickly and cost-effectively as possible, you need the combined strength of headless as well as traditional content management solutions. You need a hybrid headless CMS.

A hybrid CMS offers all of the features of a pure-play headless CMS with the best of traditional CMS capabilities:

(TIP: Refer to these capabilities as you select your next hybrid or headless CMS vendor.)

BACK-END EXTENSIBILITY FOR EASE OF INTEGRATION

Extensive, stable and comprehensive APIs enable you to integrate with any tech stack.

- Business-level enablement: API-level interoperability alone is not enough. Your team needs to be able to make changes with little to no IT involvement. A hybrid CMS enables your business users to interact with and benefit from, third-party tools through seamless integration.
- Content-as-a-Service: To improve productivity and efficiency, you need to be able to create content once and publish it everywhere with speed.

CLOUD AND SAAS SCALABILITY

Cloud and SaaS mean you can predict costs and save revenue with subscription fees. What's more, you can reduce capital outlay, accelerate setup and deployment, improve accessibility by developers and application users, easily apply software upgrades, seamlessly integrate with other tools and enhance scalability.

AUTOMATED CONTENT CREATION

By tapping into the power of AI and machine learning, a hybrid CMS can ease the content creation process and increase scalability to deliver content everywhere.

PREVIEW AND EDITORIAL CAPABILITIES

A hybrid headless CMS takes advantage of the traditional CMS capability to compile website content into the layout and presentation design, preview it on any channel and then modify it using an intuitive WYSIWYG tool. A headless CMS enables multiple frontend channels to extract content from the CMS. A hybrid headless CMS offers the best of both worlds by providing preview and editorial capabilities. These editorial features mean marketers can rapidly create better experiences for their users on any channel.

DECOUPLED CMS AND HEADLESS CMS OPTIONS

Only the most innovative CMS vendors are offering their enterprise-class customers multiple deployment options with the ability to deploy the CMS as:

- A combined front-end and back-end platform,
- A stand-alone back-end solution to enable breakthrough, content-driven experiences on any channel (headless CMS), or
- A hybrid of these two where some channels or devices are deeply integrated with the CMS while others can pull content from the headless CMS as needed.

OFFER THE OPTION OF A DIGITAL EXPERIENCE PLATFORM (DXP)

A DXP is a core set of software technologies that orchestrates the creation, delivery and optimization of personalized, content-rich digital experiences anytime, anywhere.





CAPABILITY TO ACCOMMODATE A DECOUPLED CMS CONFIGURATION

The full capabilities of a channel or device may not be realized without deeper integration between the CMS and the channel (e.g., AI provided as part of an e-commerce platform). A decoupled hybrid CMS solution enables this deeper level of integration with a frontend versus acting in a purely headless manner.

EASE OF USE

There are many potential users of a CMS, such as developers, administrators, marketers and e-commerce managers. A hybrid headless CMS enables all of these users with:

- Rapid and easy installation, start-up and adoption of its capabilities
- An intuitive user interface
- Ease of accessibility from multiple devices
- Easy maintenance
- Many other ease-of-use features

AI-DRIVEN PERSONALIZATION

End users and buyers are overwhelmed with digital content and online choices to get their information and make transactions. One of the top opportunities for you to engage your audiences and differentiate your products or services to customize the digital experience. The best CMS vendors have included in their solution the ability to personalize content and related digital experiences using machine learning and AI. This includes tapping into internal, external and behavioral data to create personalized experiences on the web, mobile devices or any channel at the micro-segment or even individual level.

Hybrid CMS + B2B & B2C commerce platforms: a match made in heaven

A headless approach that makes IT happy. A frontend experience that empowers marketing to get the job done. A decoupled architecture that enables content-driven commerce. Hybrid headless CMS lets you do it all.

Simultaneously create and deploy content using any technology, to any device, anywhere in the world – at light speed.

A hybrid headless CMS enables content-driven commerce experiences that are more immersive and engaging than today's typical B2B and B2C online commerce scenarios. These more inspiring experiences have proven to increase commerce engagement by more than 200%, leading to increased average revenue per user (ARPU) and overall revenue.

Companies like Salesforce.com, SAP and IBM have created highly efficient commerce platforms for managing online transactions with very basic content management; however, they lack the capabilities of an enterprise-class hybrid CMS (with headless capabilities) which enables commerce and marketing managers to achieve:

CONTENT-DRIVEN EXPERIENCES

Add dynamic content, such as interactive images, videos or user-generated content, and manage multiple campaigns at once on category and product pages in the commerce environment – with no coding required.

SCALE

Create and manage a corporate website presence coupled with commerce at a global level and across channels. This may include support for multiple brands, sites, countries and languages; workflow and collaboration across global, local and business unit teams as well as managing collaboration with resellers and distributors in B2B environments.

A CONNECTED BUYER'S JOURNEY

Deliver an immersive and connected buyer's journey across multiple channels and devices, including mobile, SPAs, PWAs, conversational platforms, digital signs and more.

(TIP: Ensure the hybrid headless CMS you select allows anyone in your company, or even select external teams, to tap into the power of your CMS for content creation and management. This could be store managers creating content on digital signs, a famous chef writing recipes for your product pages or technology experts contributing content to your B2B product pages).

Hybrid headless CMS in action

TSI Holdings

TSI Holdings, Japan's largest online retailer, created two dynamic e-commerce sites for its HUMAN WOMAN and Margaret Howell brands using the Crownpeak Hybrid Headless CMS and Salesforce Commerce Cloud. Its new experience-driven commerce engine helped the company capitalize on existing e-commerce investments, lower overall operational costs, and accelerate time-to-market for individual brands.

Using this decoupled content and commerce approach with deep integration of the CMS into their commerce platform, TSI now delivers omnichannel digital experiences to maintain their leadership within the Japanese fashion marketplace. What's more, thanks to improved consolidated workflows and overall ease of use, **content editors now create content 2.5x faster and update site content 1.5x faster, accelerating** time to market.

The hybrid headless capabilities of Crownpeak CMS, (FirstSpirit), enable TSI Holdings to leverage future content for other devices such as mobile applications, digital signs etc.





Grohe

GROHE is the world's leading provider of sanitary fittings and a global brand dedicated to providing innovative water products with nearly \$1.6 billion in sales and more than 6,000 employees worldwide. GROHE created one unified digital presence for all constituents—including customers, wholesalers, retailers, dealers, sales agencies, and so on.

The company uses the Crownpeak CMS, (FirstSpirit), and SAP Commerce Cloud for its digital experience platform, which manages its massive e-commerce presence of more than 60 intranet, corporate and country websites in 80 countries and languages. The hybrid CMS solution enables more engaging product content and more relevant e-commerce experiences across the multiple channels used today – the website, social and display ads and mobile apps – as well as any new channel that arises in the future.

“We realized we needed to modernize our technology stack to get a unified view of the customer so we could make product content more engaging, and e-commerce experiences more relevant.”

Carlos Carvalho, Global Head of Websites, Grohe

Conclusion

An enterprise-class, hybrid CMS that includes headless and decoupled capabilities offers significant opportunities for companies to bring more inspiring, content-driven experiences to their B2B and B2C customers. Developers, marketers and other digital experience professionals shouldn't be held back by the monolithic traditional CMS or pure-play headless CMS which lack scalability and ease of use for non-technical teams.

A hybrid CMS empowers your teams to increase productivity, optimize your speed to market and improve your sites' performance. Your marketers can create and publish content on their terms, whilst your developers can customize digital experiences.

The Crownpeak solution

Increase productivity, accelerate time-to-market, and improve your sites' performance with the Crownpeak hybrid headless content management solution (FirstSpirit).

Marketers can easily create and publish content across channels with AI capabilities, a no-code drag-and-drop WYSIWYG tool and a native integration with digital accessibility. Developers can seamlessly orchestrate experiences by using powerful integration capabilities and unlimited technology publication flexibility.

[Request a demo](#)

