

IDC MarketScape

IDC MarketScape: Worldwide Content Management Systems for Persuasive Digital Experiences 2021 Vendor Assessment

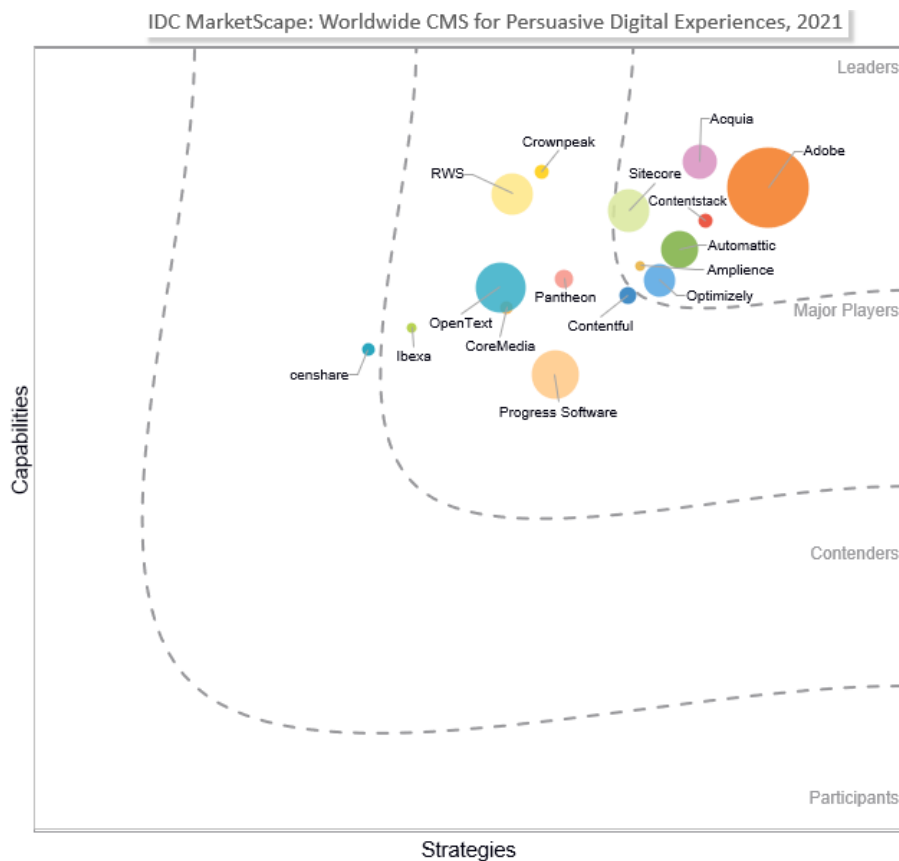
Marci Maddox

THIS IDC MARKETSCAPE EXCERPT FEATURES ADOBE

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide Content Management Systems for Persuasive Digital Experiences Vendor Assessment



Source: IDC, 2021

Please see the Appendix for detailed methodology, market definition, and scoring criteria.

IN THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide Content Management Systems for Persuasive Digital Experiences 2021 Vendor Assessment (Doc # US47412821). All or parts of the following sections are included in this excerpt: IDC Opinion, IDC MarketScape Vendor Inclusion Criteria, Essential Guidance, Vendor Summary Profile, Appendix and Learn More. Also included is Figure 1.

IDC OPINION

An organization's online digital presence is a mission-critical component of the resilient digital enterprise that requires flexibility in delivering content and services at scale. From its inception, the content management system (CMS) was designed to create and manage web, mobile web, and other HTML browser-based experiences. Since then, content management systems have evolved to publish content into app experiences on mobile, IoT, and other connected devices. The shift to accommodate a variety of content owners, web developers, modular cloud-based architectures, and content services has expanded the software options beyond traditional web content management (WCM) platforms to include new headless and open source alternatives.

In its simplest form, a CMS is used to manage and deploy content. Users can create, edit, delete and, most importantly, publish content (e.g., images, videos, forms, templates, pages, component, product assets) to various endpoints. For many organizations, a basic set of CMS capabilities and a straightforward approach for publishing information to a website is all they need. In other cases, a more robust digital experience platform that incorporates add-ons of ecommerce, marketing campaign tools, or customer data platforms is on the table. In either case, content is the core to reimagining what it means to exist within the digital economy.

Content for persuasive digital experiences, especially on brand and consumer websites, varies widely from product information and support installation guides to corporate information across investor relations, legal, HR, and other departments. The traditional waterfall method to "create then publish" content has morphed into an iterative process that empowers marketing teams to build, test, and publish content in shorter cycles and at their own pace. That additional speed is measured by the responsiveness of the organization's website and the amount of time it takes to launch a new online initiative.

Digital Experiences Require a Modern CMS at Its Core

Rising customer expectations and the economic challenges of the pandemic had organizations pivoting their business to a fully digital system practically overnight. As consumers turned to the online version of their favorite brands, people sought a holistic digital experience that was highly personalized, completely connected, and based on empathetic relationships. The website became more than just an informational landing page or a shopping site. From retailers to restaurants, educational institutions, and government offices, every organization relied on its online presence to communicate, educate, and fulfill requests on an unprecedented scale across a hyperconnected digital environment.

During this evaluation, IDC interviewed various companies, creative agencies, and systems integrators that shared some of their common challenges in dealing with antiquated systems:

- *"Making changes, or creating new templates was prohibitively resource intensive, and frustrating for business users, feeling locking into mediocre web experiences. Our CMS really held us back from doing anything creative, or innovative."*
- *"We needed a CMS that was easier to develop on and simpler for our associates to use to create content in many different markets and languages."*
- *"The overall business goals were (and still are) to remove inefficiencies when working across teams within the organization. Today, teams are unable to leverage resources from other teams because processes, tools, and code are different. We need a central CMS platform that will enable all users to work in the same way, so moving across teams is seamless."*
- *"We want to improve the content author experience by finding a CMS that can be configured and customized around marketing needs – bring our websites to a modern technology, improve page speed and efficiency of being able to update pages quickly."*
- *"Anything from web copy to images to promos, we should not have to waste developer cycles on changes that could easily be done with a CMS."*
- *"We want to find a system that does not dictate our tech stack so we can deliver a first-in-class user experience and performance based on technology and vendor choices we've already made as a company. Maximize the value of the tech stack with integrations that share data and create consistent customer experiences across all touch points."*

As businesses head into recovery, forward-looking organizations are reviewing the investments and changes made during the pandemic era. They are codifying any changes that will endure and making sure that they can not only ensure business resiliency but also lay a foundation for future growth, innovation, and agility. There is a renewed focus on customer experience, which is improved with the adoption of personalized, automated, and transformed digital experiences. Other trends of note include:

- **Content value streams:** Content is a core element of the digital customer experience. The modern CMS will orchestrate the content value stream across the various stakeholders in a seamless fluid motion. Fundamental to the engaged customers is gaining an understanding of what they value in products, services, experiences, and interactions with a business. Also important is identifying the streams that provide an opportunity for the business and its customers to exchange value tied to the process by which data and information flows through an organization and along the way accumulates context and form to become enriched content elements. With each iterative touch point of activity along the customer data journey, content strengthens its value.
- **First-party data:** Driven by data trust and the impacts of evolving regulatory demands, there is a reduction in the utility of third-party data and cookie-based customer insight. Users are demanding greater privacy – including transparency, choice, and control over how their data is used – and it's clear the web ecosystem needs to evolve to meet these increasing demands. As a result, businesses must take ownership in understanding and responding to user behavior and expectations.
- **Design systems:** As organizations manage an increasingly broad range of digital touch points with their audiences, more of them are investing in fully digital design systems that can accelerate development and improve brand consistency at the edge. Creative designers are teaming up with web developers to build engaging digital experiences that leverage the back-end content engine of the CMS.

Types of Content Management Systems

Each CMS category can be characterized by the level of control and technical skill needed at the content, design, and administration layers. Small to midsize businesses or independent departments wanting to outsource website operations will find that SaaS-templated website builders require little to no technical skills and provide simplicity in creating a page quickly. Hosted website solutions cater to the open source community, offering ease of operations in the cloud by applying controls across three tiers (web operations, web development, and content management) for better resource and data isolation, utilization, and optimization. Large enterprises with heavy transactional activities or multiple data sources will find that a traditional WCM platform offers the broadest set of capabilities and integrations to other applications. Finally, the most developer-intensive solution, headless CMS, is a good fit for organizations that need a fully customized front-end delivery and have strong development skills in place.

Architectural Considerations

Modern CMSs orient toward a content powerhouse that offers codeless content creation (drag-and-drop authoring and administration, intelligent content recommendations, roles/usage-based templates), presentation design freedom, automated decision-driven workflow, and scalable edge delivery. Architectural elements of consideration include:

- **Smart data structures:** Content relationships require a data structure that supports an object-level atomic design to prevent layered or circular content referencing. Every element needs to be independently assembled, allowing for reuse without dependency on the presentation, and machine driven (e.g., automation, insight and recommendations) to drive kinetic outcomes (e.g., engagement, conversion, learning).
- **Diverse content types:** The data layer must handle a diverse set of content formats (e.g., atomic fragments of content, text, images, videos, augmented reality [AR]/VR, and audio).
- **Accessibility support:** Accessibility checkers quickly scan a website for on-page and technical accessibility issues and errors in readability or navigation based on recognized standards, such as the Web Content Accessibility Guidelines (WCAG). With better content enrichment and presentation design, accessible websites provide an inclusive experience for everyone, optimized across device (desktop browser, voice browser, mobile phone browser, automobile displays) or operational constraints (noisy surroundings, limited lighting, hands-free driving environments).
- **Microservices and API frameworks:** Offering a set of small services, each running in its own process and communicating with lightweight mechanisms, often an HTTP resource API, such as REST or GraphQL, microservices are built around business capabilities that can be scaled independently by distributing the services across servers and replicating as needed with explicit remote call mechanisms.

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

The vendor inclusion list for this document was designed to accurately depict the vendors that are most representative of any given cloud-based content management system buyer's selection list. Vendors were then surveyed and further investigated to ensure that the offerings qualified with both capabilities and strategies related to the CMS market.

Critical to this research effort was for the vendor to meet the inclusion criteria. Any vendor participating in this IDC MarketScape had to showcase that it met the following:

- Market presence and momentum based on IDC inquiry and three years' positive revenue growth
- Generate a minimum of \$10 million in cloud-deployed annual recurring revenue (excluding professional services) in calendar year 2020 from a commercially supported business packaged offering
- Deployment in the cloud as managed hosted private cloud, PaaS or SaaS in a public cloud
- Targets and scales to meet the needs of large to enterprise size organizations supporting 1,000+ employees with approximately 50% of customers in this range
- Has revenue attributed to multilanguage public websites and multichannel digital experiences in at least two of the following regions: North America, Latin America, Europe, Middle East/Africa, Japan, China, Asia/Pacific
- Had customers in production in the cloud for at least 12 months as of January 1, 2021
- Provide capabilities to create and manage websites or authenticated workspaces with support for the following capabilities: content creation, design presentation, personalization, content library services, security/permissions, analytics/reporting, interoperability to adjacent technologies
- Provide customer and partner references that have been in production for at least one year or more and can rate the vendor on its support and product performance in usability, interoperability, customer service, strategy, and cloud provisioning

ADVICE FOR TECHNOLOGY BUYERS

Content management systems are evolving, in terms of advanced functionality and a shift to cloud-native, microservice architectures. As organizations refine their cloud strategy, buyers have a choice of CMS technology options that cater to the needs of the business – whether it is with a single-stack application or a developer-savvy headless open source system. The modern CMS is designed to get business users up and running quickly and effectively streamline the content processes and deliver personalized experiences faster.

For buyers with a cloud-first strategy, CMS applications should provide a solid return on investment that benefits from cloud elasticity and scaled performance that align with business goals. The vendor should provide the services and support to get you up and running quickly and continue to monitor your progress to success. Training and continuous education should be available as guided tutorials, hands-on training, and a community for self-help. The need to deliver more engaging digital experiences will demand more of the content management systems in the coming years. IDC advises technology buyers to look for the following when selecting a vendor:

- A flexible architecture to support reusable atomic content, roles-based templates, and an authoring environment that makes it easy to create and publish content to multiple channels
- A cloud-native architecture, cloud-first strategy, and strong representation of customers that have deployed high-traffic content sites in the cloud
- Intuitive user interface for all users who interact with the CMS (e.g., marketers, brand managers, developers, and administrators)
- A modern, API-first, microservices-based architecture to ensure performance and ease of integration
- An innovation strategy with support for artificial intelligence/machine learning (AI/ML), conversational interfaces, personalized content, or intelligent search

- Innovation track record and demonstrated ability to deliver enhancements on a regular cadence in a seamless manner, including automatic and frequent updates
- Supported connectors to adjacent applications such as a content delivery network (CDN), customer data platforms (CDP), digital asset management (DAM), personalization tools, and commerce systems to minimize custom code required
- Industry-specific solutions and content taxonomies that align to the buyer's use cases (e.g., retail, manufacturing, financial services, healthcare)
- Global multisite management with support for multiple languages, persistent caching, local points of presence or datacenters, and adherence to regulatory guidelines
- Financial stability and ability to support future solutions as user expectations evolve
- A strong partner and developer ecosystem for implementation, support, and technology integrations

VENDOR SUMMARY PROFILES

This section briefly explains IDC's key observations resulting in a vendor's position in the IDC MarketScape. While every vendor is evaluated against each of the criteria outlined in the Appendix, the description here provides a summary of each vendor's strengths and challenges.

Adobe

After a thorough evaluation of Adobe's strategy and capabilities, IDC has positioned the company in the Leaders category within this 2021 IDC MarketScape of content management systems for persuasive digital experiences.

Adobe is a public company established in 1982 and is headquartered in San Jose, California. Adobe offers the CMS under the product name of Adobe Experience Manager (AEM) Sites. Quick facts about Adobe:

- **Content management category:** Web content management platform, headless CMS
- **Global footprint:** Major presence in North America and Europe with growth in APAC
- **Top industry areas:** Retail, financial services, high tech, and manufacturing
- **Ideal organization size:** Midmarket to large enterprise
- **Cloud type:** Multitenant SaaS public or private cloud
- **Architecture:** Decoupled and 20-30% microservices based
- **Web technology, scripting, and coding languages:** Java, Node.js, React, CSS, JavaScript, Sass, TypeScript
- **Based on open source code:** 60-70%
- **Key differentiator:**
 - Adobe Experience Manager Sites addresses content velocity and time to market for personalized experiences with native connectivity to the Adobe Creative Cloud, AEM Assets (digital asset management), and Adobe Target (Personalization). AEM Sites' Quick Experience Creation provides a codeless environment to create templated experiences with integration points to the Adobe stack. AEM Sites offers in-context authoring for emerging channels, enabling practitioners and front-end developers to seamlessly build experiences with tools such as the SPA Editor.

Strengths

- **Authoring environment:** Adobe's feature-rich technology stack includes AEM Sites providing an atomic content design that allows users to assemble variations of pages and summaries from content fragments. Adobe Sensei (Adobe's AI/ML framework) helps streamline and automate authoring tasks along the entire content life cycle.
- **Site administration:** AEM Sites' multisite manager supports master and live copies with quick site templates such as a personalized commerce experience. AEM Sites offers an accessibility score as part of the Experience Audit, which validates the page upon publication.
- **Developer environment:** Adobe has recently entered the headless CMS market with the new React front-end support and SPA sites to be dynamically authored with traditional inline editing tools of AEM Sites, a PWA, and a JSON previewer.

Challenges

- **Product road map:** Adobe has few GraphQL APIs or style guides to meet the needs of front-end developers and is missing a cross-product road map showing how products can be leveraged together as Adobe deepens the integrations to products such as the Adobe XD or Workfront or AI/ML from Adobe Sensei.
- **Pricing and support:** Customers and partners interviewed for this evaluation noted that Adobe has room for improvement in the areas of pricing and customer support. Users noted the high cost for the base product and how support could be more responsive to software issues, especially in the cloud environment.
- **Cloud transition:** Adobe announced the availability of Adobe Experience Manager as a cloud service in 2020 and has been transitioning the base product to a cloud-native architecture including moving to strict microservices-based containers and code deployment packages to assist partners in implementing AEM Sites in the cloud.

Consider Adobe When

Consider Adobe when your website is marketing and commerce focused and you have creative teams that can benefit from the full stack of creative tools available from Adobe.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is to customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis, or strategies axis, indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represents the market share of each individual vendor within the specific market segment being assessed. For this IDC MarketScape, vendor size was determined by IDC's 2021 Software Tracker and validated by each vendor on their revenue in the market. For details regarding the vendors and size of the CCM market, see *Worldwide Persuasive Content Management Applications Market Shares, 2020: Market Leaders Shift as Cloud-Based Solutions Gain Traction* (IDC #US46252521, May 2021).

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of IDC experts in each market. IDC analysts base individual vendor scores, and ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

Market Definition

Digital experience applications curate, manage, publish, and deliver editorial, image, rich media, and product content for omni-channel experiences including websites, mobile apps, social networks, digital signs, IoT apps, and conversational interfaces. IDC categorizes persuasive content management software into four website solution commercial packages:

- **Web content management (WCM) platform**, the most seasoned website solution in the market, is referred to as a full-stack platform that provides both a content engine and a presentation layer to create, edit, and publish digital content such as text, images, audio, video, and interactive graphics to websites and mobile web apps.
- **SaaS-based website building solutions** simplify the website building process by using theme-oriented templates to create and publish content to the web without the need to hire designers or developers. These solutions are full-stack applications that allow for minimal front-end custom branding and developer-built plug-ins.
- **Website managed hosting solutions** offer SaaS or managed private cloud options for open source CMS solutions such as Drupal and WordPress. Taking on the website operational tasks of cloud infrastructure deployment, software upgrades, and website maintenance, these solutions minimize IT involvement and maximize the creative content and web design functions within the organization.
- **Headless CMS** is a back end-only application to manage, store, and track content; the front-end presentation layer is removed. Front-end web developers use APIs to send and retrieve content and apply presentation logic (e.g., localized language display or accessibility controls for text size or closed captioning) or personalized preferences (e.g., style themes or shopping recommendations) to dynamically generate the digital experience.

CMS solutions can be either open source or commercial with an architecture that can be characterized by how the front-end presentation and delivery connects to the back-end content engine. IDC identifies the CMS architectures in this document in the following ways:

- **Single-stack** platforms provide a single application that tightly couples the back-end content management engine to the front-end presentation design and delivery engine to create, edit, and publish digital content such as text, images, audio, video, and interactive graphics for websites and mobile web apps.
- **Decoupled** solutions act as a single application but are designed with separate back-end and front-end services that communicate independently through an API framework allowing for flexibility in data management and event handling.
- **Headless** solutions provide a back end-only content engine leaving the presentation layer to be designed and custom developed using a front-end framework and accessing the content and back-end services via APIs. The architecture is often associated with microservices for large, distributed networks such as cloud environments.

CMS solutions can also be deployed on premises or in multiple cloud configurations. IDC defines its cloud taxonomy with the following:

- **Multitenant software-as-a-service applications (SaaS apps)** services are based on a service composition and delivery model made up of a utility computing environment in which unrelated customers share a common application and infrastructure resources that is managed by an independent software vendor (ISV) or a third-party service provider.
- **Platform-as-a-service (PaaS)** solutions are designed and offered as private cloud-ready solutions; IT assets are typically owned and managed by the customer and dedicated to a single customer. Whether designed for public or private cloud, all PaaS, at a minimum, must conform to IDC's eight basic cloud characteristics: solution packaged; shared/standard services; elastic resource scaling; self-service; elastic, term-based pricing (no perpetual license); ubiquitous (authorized) network access; standard user interface technologies; and published service interface/API.
- **Single-tenant software** can be deployed in either a public or private cloud where each instance of the software is dedicated to a single customer for an extended duration.
- **Public cloud** services are shared among unrelated enterprises and/or consumers, open to a largely unrestricted universe of potential users, and designed for a market, not a single enterprise (e.g., AWS, Azure, GCP).
- **Private cloud** services are shared within a single enterprise or an extended enterprise, with restrictions on access and level of resource dedication, and defined/controlled by the enterprise, beyond the control available in public cloud offerings. (e.g., vendor or partner dedicated cloud).

LEARN MORE

Related Research

- *Operational Considerations of a Modern Content Management System* (IDC #US48196521, September 2021)
- *IDC TechBrief: Website Software for Public Brand and Consumer Digital Experiences* (IDC #US47327121, June 2021)
- *Worldwide Persuasive Content Management Applications Forecast, 2021-2025* (IDC #US46252421, May 2021)
- *Worldwide Persuasive Content Management Applications Market Shares, 2020: Market Leaders Shift as Cloud-Based Solutions Gain Traction* (IDC #US46252521, May 2021)
- *IDC's Worldwide Software Taxonomy, 2021* (IDC #US47588620, April 2021)
- *Delivering Multichannel Digital Customer Experiences: Shifting Preference for Interlocking Cloud Technologies* (IDC #US46252321, March 2021)

Synopsis

This IDC study provides an assessment of the principal content management systems used for persuasive digital experiences and presents the criteria most important for companies to consider when selecting a content management solution. This assessment discusses both quantitative and qualitative characteristics that explain success in the authoring and delivery of personalized content within a brand or consumer website, mobile web app, or other digital delivery channels. The evaluation is based on a comprehensive and rigorous framework that assesses vendors relative to the criteria and one another. The study highlights the factors expected to be the most influential for success in the market during both the short term and the long term.

"The recent unprecedented disruption on business shifted more services online, placing an increased demand for scalable persuasive digital experiences," said Marci Maddox, research director, IDC's Digital Experience Strategies program. "Organizations cannot afford to dismiss the technology that is at the heart of the digital experience – modern content management systems streamline the content value chain and orchestrate customer engagement across many digital channels. The content creation and delivery process can now be augmented with automation, intelligence, and flexibility to better engage the customer at the browser, mobile device, social sites, and more."

About IDC

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