IDC MarketScape

IDC MarketScape: Worldwide AI-Enabled Full-Stack Content Management Systems 2025 Vendor Assessment

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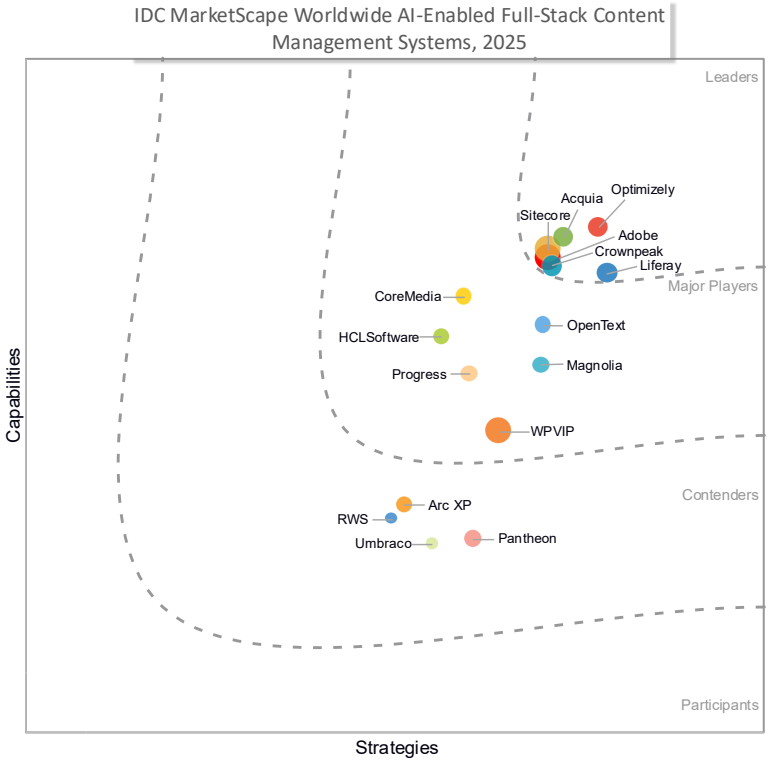
THIS EXCERPT FEATURES LIFERAY AS A LEADER

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide AI-Enabled Full-Stack Content Management Systems



Source: IDC, 2025

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

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ABOUT THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide AI-Enabled Full-Stack Content Management Systems 2025 Vendor Assessment (Doc #US52993625).

IDC OPINION

Early content management system (CMS) platforms were designed to centralize everything — content creation, design, and delivery — within a single environment. Over time, that tightly coupled control began to limit flexibility and slow business responsiveness. In response, CMS architectures evolved to support mobile apps, Internet of Things (IoT) devices, and other connected experiences, giving rise to modular and cloud-based headless alternatives. Yet many organizations continue to value a unified environment in which content management and presentation coexist. Full-stack CMSs address this need by tightly integrating authoring, workflow, and front-end rendering, enabling marketing and creative teams to collaborate and publish efficiently at scale.

AI is now redefining this integrated model. Generative AI (GenAI) accelerates authoring, translation, and layout design, while orchestration agents automate testing, deployment, and governance. Agentic workflows extend full-stack strengths by coordinating entire content and campaign life cycles within the same environment. As a result, AI-enabled full-stack CMSs are emerging as intelligent platforms that combine speed, governance, and consistency with selective modularity where needed.

Technically, a full-stack CMS integrates both functional logic and presentation layers in one managed environment. Traditionally, these systems coupled the rendering engine and repository through internal APIs, creating dependencies. Modern full-stack platforms increasingly apply service-oriented architectures and selectively exposed APIs, allowing organizations to plug in or replace services such as search or databases without disrupting the unified experience.

When enhanced with AI, these systems amplify their core advantage: seamless alignment between authoring and delivery. AI streamlines content creation, automates page assembly, and optimizes layouts or personalization in real time — all within a governed workflow. For authors and marketers, this creates an end-to-end workspace for creation, preview, optimization, and publishing. For developers, modular APIs and AI-assisted components offer flexibility to extend functionality without fragmenting the stack.

From Monolith to AI-Enabled Modular Systems: The Reset of Full-Stack CMS

The full-stack CMS market is undergoing a fundamental reset, shaped by cloud-first adoption, composable architectures, and the rapid embedding of AI. The following forces are redefining how enterprises modernize, govern, and scale digital content delivery programs:

- **AI as the operating system:** Generative and agentic AI are moving from pilots to embedded practice, automating creation, personalization, governance, and experimentation with measurable cycle-time and outcome gains.
- **Cloud-first as baseline:** SaaS delivery has become the default for performance, security, and resilience. On-premises deployments persist only in regulated or highly customized estates.
- **Modernization through migration:** Enterprises demand automated tooling and dashboards to accelerate replatforming while protecting SEO equity, integrations, and cost predictability.
- **Composable and interoperable stacks:** Buyers now expect the modular integration of content, commerce, and personalization, driving vendors to expand APIs, SDKs, and marketplaces.
- **Governance at scale:** Accessibility, localization, and compliance controls are reinforced to ensure global publishing programs remain consistent, secure, and trustworthy.

Operational and Design Considerations for Full-Stack CMSs

AI is redefining the full-stack CMS as a foundation for enterprise modernization. Once valued primarily for unified content authoring and delivery, these platforms are now evolving into intelligent ecosystems where AI and agentic automation optimize every stage of the content life cycle. Generative models accelerate authoring, translation, and layout design, while orchestration agents coordinate publishing, testing, and governance within the same environment. This embedded intelligence enhances the traditional strengths of full-stack architectures — speed, governance, and consistency — while enabling selective modularity through APIs and microservices. For smaller organizations, managed full-stack environments deliver rapid deployment and ease of use; for large enterprises, they provide scalable, governed environments that integrate deeply with marketing, analytics, and operational systems. Across both, AI-enabled architectures are becoming the central engine of digital experience modernization. Key architectural priorities for AI-enabled full-stack CMS buyers include:

- **Require native AI integration:** Favor platforms embedding AI directly within core authoring, workflow, and analytics layers to automate creation, translation, tagging, and optimization activities at scale.
- **Adopt agentic orchestration frameworks:** Prioritize CMSs that integrate agent-based workflows capable of coordinating end-to-end tasks such as campaign assembly, testing, and multichannel publishing.
- **Select unified, modular architectures:** Choose CMSs that preserve full-stack cohesion while incorporating modular services and micro-front ends, allowing gradual modernization without loss of control or stability.
- **Establish AI-aware governance:** Insist on platforms that combine content governance with AI oversight — supporting explainability, auditability, and compliance across automated decisions and generated outputs.
- **Enable controlled extensibility:** Seek CMSs with well-documented APIs, SDKs, and integration layers that allow safe connection to external systems and emerging AI services without compromising platform integrity.
- **Plan for elastic scaling and optimization:** Require cloud-native architectures with telemetry and learning loops that continuously enhance content performance, reliability, and user experience.

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 AI-enabled full-stack CMS buyer's selection list. Vendors were then surveyed and further investigated to ensure their offerings qualified in terms of both capabilities and strategies related to the AI-enabled full-stack 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 demonstrate that it met the following criteria:

- Market presence and momentum based on discussions relating to the vendor during IDC's interaction with the market (briefings, inquiries, and other meetings and engagements)
- Generate revenue from a commercially supported business packaged offering
- Cloud deployment as managed hosted private cloud, PaaS, or SaaS on public cloud
- Clients in cloud production for at least 12 months
- CMS platform purpose-built and validated to scale for midsize to large enterprises, which represent a core sales and marketing focus

- 500+ employees, with approximately 50% of customers in this range
- Provides capabilities to create and manage websites or authenticated workspaces with support for the following capabilities:
  - Creation, curation, and management of content that can be assembled and approved for publishing webpages, mobile websites, and web apps
  - Design/presentation controls such as layout, templates, menus, navigation, and widgets
  - Provides or assists in the personalization of anonymous or authenticated user experiences
  - Content repository providing library services to organize and maintain various content types and metadata
  - Security, roles, and permissions management
  - Analytics and reporting at the infrastructure, content, and user experience layers
  - Interoperability with adjacent technologies via well-documented web services, open APIs (either GraphQL or REST API), or SDKs

ADVICE FOR TECHNOLOGY BUYERS

AI-enabled full-stack CMSs combine the familiarity of an integrated environment with automation that accelerates content creation, translation, and publishing. Buyers should focus on platforms that embed intelligence throughout the workflow while maintaining governance, consistency, and reliability. Modern full-stack systems should make innovation invisible — speeding up delivery without increasing operational complexity. IDC advises technology buyers to:

- **Select unified, AI-driven platforms** that integrate authoring, orchestration, and analytics while automating repetitive content and design tasks.
- **Prioritize intuitive user experiences** with role-based UIs, contextual previews, and guided onboarding that enable rapid adoption.
- **Ensure deep ecosystem integration** with DAM, PIM, CDP, analytics, and commerce systems to streamline the content supply chain.
- **Verify governance and compliance features,** including audit trails, data residency options, and automated accessibility and privacy checks.
- **Look for modular extensibility** through upgrade-safe APIs, SDKs, and marketplaces that future-proof the full-stack environment.

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.

Liferay

After a thorough evaluation of Liferay's strategy and capabilities, IDC has positioned the company in the Leaders category in this 2025 IDC MarketScape for AI-enabled worldwide full-stack content management systems.

Liferay was established in 2004 and is headquartered in Diamond Bar, California, United States. It offers a full-stack CMS under the name Liferay Digital Experience Platform.

Quick facts about Liferay include:

- **Employees:** 1,000+
- **Global sales support:**
  - **Both direct and partner:** Japan, APAC (excluding China, Japan, Australia, and New Zealand), Europe, Middle East/Africa (MEA), South America, North America, and Australia/New Zealand
- **Cloud hosting presence and type:**
  - **Both public cloud and datacenter:** Japan, APAC (excluding China, Japan, Australia, and New Zealand), Europe, Middle East/Africa (MEA), South America, North America, and rest of world
- **Approaches and support for web technologies and frameworks**: Mix of traditional and modern technologies (e.g., Java back end with React UI)
- **Open source code base:** 75–99% — open source core with some proprietary wrappers or extensions
- **Pricing models supported:** The vendor is an open source business and does not charge a software license fee. Annual and/or multiyear subscription fee, usage-based pricing (e.g., API calls, bandwidth, and content entries)

Strengths

- **Enterprise identity depth:** Robust SSO, IAM integration, and granular permissions enable secure, personalized experiences across roles, units, and partner ecosystems with strong governance requirements.

- **Scalability and multisite:** High author and user scalability, attribute-driven multisite publishing, and cascade publishing suit distributed organizations managing many brands, markets, and authenticated audiences.
- **Workflow and governance:** Visual workflow design, quality gates, life-cycle automation, and policy enforcement provide operational discipline across content supply chains and app delivery pipelines.

Challenges

- **Design tool integrations:** Native integrations with design collaboration platforms are limited, increasing friction when translating tokens and components into governed themes and templates.
- **Analytics and experimentation:** In-product experimentation, behavioral analytics, and trend detection are adequate but may require external optimization and intelligence tooling for advanced programs.
- **Regional hosting breadth:** While options exist, public cloud presence and dedicated regional choices may be narrower in terms of footprint.

Consider Liferay When

Consider Liferay when you require a flexible DXP to deliver complex, multi-audience portals and intranets, with open source extensibility, hybrid delivery, and strong integration capabilities that support authenticated, role-based, and multilingual experiences at enterprise scale.

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 2024 Software Tracker and validated by vendors on their revenue in the market. For details regarding the vendors and size of the market, see *Worldwide Web Content Management Software Market Shares, 2024: From Suites to Stacks — Composability Challenges Market Share* (IDC #US53742225, August 2025) and *Worldwide Persuasive Content Management Applications Market Shares, 2024: Leaders Win with Content and AI to Solve the Biggest Employee and Customer Experience Challenges* (IDC #US52096825, August 2025).

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

Content management systems (CMSs) are foundational to delivering persuasive digital content and experiences — the ability to create, manage, and orchestrate messages that inform, engage, and convert audiences across every digital touch point. As part of IDC's Persuasive Content and Experience Strategies initiative, CMSs represent the core technology layer enabling organizations to curate, publish, and optimize editorial, image, rich media, and product content across omni-channel environments, including websites, mobile apps, social networks, digital signs, IoT devices, and conversational interfaces. These systems unify content, design, and data to power connected, data-driven experiences at enterprise scale. IDC categorizes CMS architectures as follows:

- **Application programming interface (API) frameworks:** APIs connect back-end content repositories with front-end presentation layers and external services. Modern CMSs use RESTful, GraphQL, and event-based APIs to enable composable architectures, support data exchange, and integrate with adjacent systems such as analytics, commerce, and personalization engines.

- **Front-end presentation layer:** The front end defines how content is displayed to the end user, using standard web technologies — HTML for structure, CSS for design, and JavaScript for interactivity. Developers increasingly use single-page (SPA) and progressive web app (PWA) frameworks to deliver responsive, app-like experiences powered by CMS APIs.
- **Full-stack CMS:** Full-stack platforms integrate both content management and presentation within a unified environment. Built on service-oriented or modular architectures, they use internal APIs to connect functional and presentation layers. Modern versions selectively expose APIs to external systems for extensibility while preserving the benefits of centralized authoring, workflow, and governance.
- **Headless CMS:** Headless systems separate content creation from presentation. They manage structured, design-agnostic content in API-accessible repositories, allowing developers to build custom front ends that consume data via REST or GraphQL interfaces. All presentation-dependent functionality must be accessible externally, ensuring full decoupling between front-end and back-end logic.
- **Hybrid-headless CMS:** Hybrid systems blend managed presentation control with headless flexibility. They share a single content model across both modes, enabling organizations to manage content once and publish anywhere — through visual authoring interfaces or API-based delivery.
- **Monolithic CMS:** Earlier-generation systems provide all functionality within a single, tightly coupled code base where the presentation, logic, and storage layers are interdependent. While convenient, these architectures lack modularity and cannot support true composability.

AI-Enabled CMS Architectures

AI now operates as a defining layer across all CMS types. AI-enabled CMSs embed generative, predictive, and agentic capabilities throughout the content life cycle — from creation and enrichment to orchestration, delivery, and optimization.

- **Generative AI** accelerates authoring, translation, tagging, and layout design.
- **Predictive AI** analyzes behavioral and contextual data to drive personalization, content recommendations, and performance optimization.
- **Agentic workflows** automate orchestration tasks such as testing, deployment, and governance, coordinating actions across multiple services through autonomous agents.

Modern CMSs expose these AI capabilities through APIs or model integration layers, enabling organizations to combine vendor-provided intelligence with external AI services while maintaining transparency, explainability, and governance controls.

Deployment and Cloud Configurations

CMS solutions can be deployed on premises or across multiple cloud environments. IDC defines its cloud taxonomy as follows:

- **Software as a service (SaaS):** Multitenant, vendor-managed services where unrelated customers share a common application and infrastructure environment
- **Platform as a service (PaaS):** Cloud-ready environments owned or managed by the customer or partner, supporting elastic scaling, self-service, and API-based extensibility
- **Single-tenant deployments:** Dedicated environments, public or private, in which each software instance serves one customer over an extended period
- **Public cloud services:** Shared infrastructures designed for multienterprise use (e.g., AWS, Azure, GCP)
- **Private cloud services:** Dedicated or partner-managed clouds offering controlled access, data residency, and compliance alignment for a single enterprise

Modern CMSs increasingly combine cloud-native deployment, composable design, and embedded AI to deliver governed, adaptive, and continuously optimizing persuasive digital experiences.

LEARN MORE

Related Research

- *IDC MarketScape: Worldwide AI-Enabled Headless Content Management Systems 2025 Vendor Assessment* (IDC #US52993725, October 2025)
- *IDC MarketScape: Worldwide AI-Enabled Hybrid Headless Content Management Systems 2025 Vendor Assessment* (IDC #US52993825, October 2025)
- *Worldwide Web Content Management Software Forecast, 2025–2029* (IDC #US53742325, September 2025)
- *Worldwide Web Content Management Software Market Shares, 2024* (IDC #US53742225, September 2025)
- *Worldwide Web Content Management Software Forecast, 2025–2029* (IDC #US53742325, August 2025)
- *IDC ProductScape: Worldwide Content Management Systems, 2025 — Technology Supplier Solution Functionality* (IDC #US53168725, February 2025)

- *IDC's Web Content Management System Survey, 2024* (IDC #US52561224, September 2024)

Synopsis

This IDC study assesses vendors of the AI-enabled full-stack content management systems (CMSs) that power digital experiences and outlines the most important criteria for organizations when choosing such solutions. The assessment analyzes both quantitative and qualitative factors that explain vendor success in authoring, automating, orchestrating, and governing personalized content experiences across web, mobile, and emerging AI-driven channels. The evaluation applies IDC's rigorous IDC MarketScape framework to measure vendors relative to each other and to the evolving expectations of enterprise buyers.

The study highlights the technological and strategic capabilities expected to define success in the AI-enabled CMS market over the next several years — including embedded GenAI and predictive AI, agentic workflow automation, extensible APIs, and unified governance models that preserve the advantages of the integrated stack while enabling selective composability.

"AI has become the connective tissue of the modern full-stack CMS. What began as an integrated publishing environment is evolving into an AI-driven orchestration platform — one that fuses authoring, automation, and governance to deliver faster, more adaptive digital experiences at enterprise scale." — James McCormick, senior research director, Digital Experience Strategies, IDC

ABOUT IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications, and consumer technology markets. With more than 1,300 analysts worldwide, IDC offers global, regional, and local expertise on technology, IT benchmarking and sourcing, and industry opportunities and trends in over 110 countries. IDC's analysis and insight helps IT professionals, business executives, and the investment community to make fact-based technology decisions and to achieve their key business objectives. Founded in 1964, IDC is a wholly owned subsidiary of International Data Group (IDG, Inc.).

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