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Acquia

Ultimate Guide to Drupal



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Introduction: Drupal in a CMS 2 + AI World

Digital teams are under more pressure than ever.

Marketing organizations are expected to launch faster, personalize at scale, and continuously optimize experiences — all while maintaining brand consistency, governance, security, and regulatory compliance. At the same time, AI is rapidly changing how content is created, managed, discovered, and delivered.

Traditional content management systems are struggling to keep up.

Many platforms force organizations to choose between speed and control, innovation and governance, or AI adoption and data ownership. As a result, digital leaders are rethinking not just how they build websites — but how they architect their entire digital experience foundation.

Drupal has evolved to meet this moment.

With the introduction of Drupal CMS 2, Drupal 11, and Drupal AI, Drupal is no longer just a flexible CMS. It is a modern, open digital experience foundation designed for organizations that need to move quickly today while staying adaptable for what comes next.

Drupal CMS 2 delivers a more opinionated, marketer-friendly experience on top of Drupal's proven enterprise-grade core. Drupal AI embeds artificial intelligence capabilities directly into the platform — with governance, transparency, and choice built in. And Drupal 11 provides the secure, scalable, and high-performance foundation that makes it all possible.

This guide explores how Drupal enables organizations to:

- ◆ Execute faster without sacrificing governance
- ◆ Scale digital experiences across channels and regions
- ◆ Adopt AI responsibly and flexibly
- ◆ Continuously evolve without vendor lock-in



Drupal CMS 2 + AI: A Go-to-Market Platform Built for Speed, Scale, and Security

Modern go-to-market teams operate in a world where execution speed, operational scale, and security confidence are non-negotiable.

Drupal CMS 2, built on Drupal Core 11.3 – the largest performance improvement in a decade – enables organizations to serve **26-33% more requests with the same infrastructure** compared to previous versions. Combined with Drupal AI, it transforms Drupal into a unified execution platform for digital growth.

Speed: From Idea to Live Experience – Accelerated by Design

Speed is no longer a nice-to-have. It is a competitive advantage.

Drupal CMS 2 dramatically shortens the path from concept to launch by removing friction across content creation, site building, and optimization workflows.

At the core is **Drupal Canvas**, the default editing experience. Canvas introduces true drag-and-drop page building with live preview and real-time editing, allowing teams to see exactly how experiences will look as they build them.

Marketers can:

- ◆ Assemble and update pages visually without waiting on developers

- ◆ Reuse pre-approved components instead of rebuilding layouts
- ◆ Iterate quickly with immediate feedback

Drupal enables a **“Prompt-to-Published”** workflow. While simple automation tools stop at a generic draft, Drupal AI handles the initial 80% of site creation, and **Drupal Canvas** provides the professional-grade tools for humans to refine the final 20%. When new components are needed, you can generate them on-the-fly in Drupal Canvas AI, and optionally sync them out to tools like Storybook or a headless front end, for inside-out component creation. Or, front-end developers can use their IDE of choice (like Cursor or PHPStorm) to generate and tweak components with their preferred toolset and sync those improvements back into Drupal

Canvas. The result is seamless collaboration between human and machine.

Drupal AI further accelerates execution by embedding intelligence directly into these workflows:

- ◆ Generate complete landing pages from text prompts using **Canvas AI**
- ◆ Use an **AI-powered admin assistant** to help create content types, fields, and taxonomy
- ◆ Streamline editing, rewriting, summarization, and accessibility tasks

By reducing handoffs and eliminating manual effort, Drupal enables teams to move from idea to execution faster — without introducing new tools or operational complexity.



Scale: Consistent Experiences Across Teams, Markets, and Channels

Scaling go-to-market execution requires consistency as much as speed.

Drupal CMS 2 enables scale through a **component-based approach**, powered by the **Mercury component library**. Mercury provides reusable, brand-approved building blocks — such as heroes, cards, testimonials, menus, and accordions — that create a shared language between design, marketing, and development teams.

This allows organizations to:

- ◆ Maintain brand consistency across hundreds or thousands of pages
- ◆ Support global and regional teams working in parallel

- ◆ Deliver experiences across web, mobile, and headless architectures from a single content foundation

CMS 2 also introduces **site templates** — near-feature-complete starting points that dramatically reduce time to value. 11 templates intended for distinct use cases were available at launch, including:

- ◆ **Blank** gives way to your custom component library for advanced projects
- ◆ **Byte** provides a production-ready SaaS marketing site
- ◆ **Haven** uses a warm design intended for non-profits
- ◆ **Starter** offers a flexible foundation with Mercury components for broader use cases
- ◆ **Healthcare** has an accessible, patient-centered design for medical clinics and hospitals

- ◆ **Local** is intended for local council sites

Drupal AI extends this scalability by applying intelligence across the entire content lifecycle:

- ◆ Rapid localization through AI-powered translation
- ◆ Conversational, AI-powered search that helps users find what matters faster
- ◆ AI-driven workflows that automate repetitive tasks across large content operations

Because AI operates directly on Drupal's structured content model, teams can scale experiences globally without fragmenting content, workflows, or governance.

Drupal's architectural depth prevents the **"Painted Backdrop Problem"** at scale. While simple AI tools can build simple sites that look pretty, they

often include unmanageable code debt. Drupal manages **thousands of AI-augmented pages simultaneously** using structured content modeling. This ensures that as your AI operations expand, your digital foundation remains maintainable, governable, and scalable without becoming a fragmented collection of disconnected pages.

Drupal's historical strength in multilingual operations is now supercharged by AI. By integrating major AI models directly into the content lifecycle, teams can achieve rapid localization that captures regional nuances and specific brand tones. This moves beyond simple word-for-word translation to intelligent content adaptation, allowing organizations to maintain brand consistency in every market while reducing the manual effort previously required for global site management.



Security: Fast-Moving Teams, Built on Trust and Governance

Speed and scale are only sustainable when built on a foundation that is secure by design, not just by configuration. Drupal's security model is the benchmark for open-source software, trusted by NBC Olympics, The YMCA, the European Commission, The University of Oxford, USA.gov, Yale, Bayer, United Nations, Volkswagen, CERN, BurdaVerlag GmbH, Doctors without Borders and many more.

Proactive Enterprise Security

Unlike proprietary systems that rely on “security through obscurity,” Drupal utilizes a **coordinated vulnerability disclosure** model:

Dedicated Security Team: A global team of 30+ experts manages security, identifying and rectifying vulnerabilities before they go public.

Coordinated Disclosure: Issues remain private until a verified fix is ready, at which point security advisories are released with predictable windows for scheduled maintenance.

Architectural Defense: Drupal core mitigates common attack vectors like SQL injection, Cross-Site Scripting (XSS), and Cross-Site Request Forgery (CSRF) through automated input validation and a robust database abstraction layer.

Secure Access: Multi-factor authentication (MFA) and encoded, hashed, and salted password storage are standard, ensuring user data is protected at the highest level.

Embedded Governance for Fast-Moving Teams

Governance in Drupal is a native capability that unblocks execution rather than slowing it down. Organizations can:

Empower Marketers: Independent publishing happens within defined guardrails, preventing brand or compliance slips.

Automate Workflows: Enforce review and approval stages via granular, role-based permissions (RBAC).

Audit and Compliance: Maintain full visibility with audit logging that captures every content change, login attempt, and permission modification for regulatory documentation.

Software Sovereignty: Irrevocable Digital Freedom

Beyond security, Drupal provides a foundation for **Software Sovereignty**. On the “Software Sovereignty Scale,” Drupal is a rare “Grade A” technology. Because the ownership of its code is distributed across tens of thousands of contributors, it is structurally protected against acquisition or re-licensing. For global organizations and government entities, this guarantees:

Freedom of Action: The permanent, irrevocable right to use and modify your infrastructure regardless of vendor shifts or geopolitical changes.

Data Ownership: You own your roadmap, your models, and your data forever—eliminating the “vendor tax” and lock-in of proprietary platforms.



AI as a Foundational Capability, Not a Bolt-On

Drupal treats AI as a core platform capability — not a feature tied to a single vendor or roadmap.

Organizations have the freedom to choose from leading AI providers such as OpenAI, Anthropic, AWS Bedrock, Google Gemini, Azure AI, Hugging Face, and locally hosted models. Vector databases and retrieval capabilities further enable advanced search and personalization use cases.

This flexibility allows teams to:

- ◆ Optimize for cost, performance, and compliance
- ◆ Adapt as AI models evolve
- ◆ Avoid vendor lock-in

AI becomes a strategic asset that strengthens GTM execution — not a constraint that limits it.

Drupal also differentiates itself through Structural Intelligence. Unlike visual builders that only see the “surface,” Drupal’s Introspectable Architecture (nodes, fields, and entities) is machine-readable. This allows AI agents to understand the deep relationships between your data, resulting in higher-quality, factual content. Furthermore, the Context Control Center in Drupal CMS 2 acts as a governance hub where organizations store “brand truths”—voice, tone, and personas—ensuring that AI-generated experiences are never generic (or worse, hallucinated) but are grounded in specific brand standards.

Opinionated Where It Accelerates Going to Market, Flexible Where It Matters

Drupal CMS 2 is intentionally opinionated in the areas that unblock execution — editing, layout, templates, and workflows — while preserving Drupal’s renowned flexibility underneath.

Organizations retain:

- ◆ Full ownership of their data and content
- ◆ The ability to customize, extend, and integrate freely
- ◆ Freedom from closed ecosystems and forced roadmaps

The result is a platform that supports today’s go-to-market velocity while remaining adaptable for what comes next.

What This Means for Go-to-Market Teams

Together, Drupal CMS 2 and Drupal AI enable organizations to:

- ◆ Launch campaigns and sites faster
- ◆ Scale digital experiences confidently across markets and channels
- ◆ Maintain strong governance, security, and brand integrity
- ◆ Continuously optimize and innovate with AI

They turn Drupal into a go-to-market execution engine — purpose-built for modern digital teams operating in an AI-driven world.



Why Digital Leaders Choose a Foundation for Innovation

Digital leaders are no longer just looking to rebuild what they have; they are seeking a platform that guarantees “**Day Zero**” innovation for their next generation of digital projects. While many legacy systems are “broken” by technical debt, modern digital leaders choose Drupal because it is the most flexible and future-ready foundation available today.



Why Ambitious Teams Start with Drupal:



The “Painted Backdrop” Prevention Strategy:

Unlike simple AI builders or lightweight CMSs that make a simple website easy but long-term maintenance impossible, Drupal uses its structural intelligence to ensure that a new project remains maintainable and governable as it scales from one page to ten thousand.



Accelerated Time-to-Value:

With Drupal **CMS 2** and pre-packaged **Recipes**, teams can move from installation to a feature-rich, enterprise-grade launch faster than ever, without sacrificing the ability to customize later.



Native AI and Sovereignty:

Choosing Drupal for a new project means embedding **Software Sovereignty** and **Responsible AI** into your infrastructure from the first line of code. Organizations retain full ownership of their data, models, and roadmap—avoiding the vendor lock-in that plagues proprietary platforms.



Eliminating the Innovation-Governance Trade-off:

Digital teams often feel forced to choose between speed and control. Drupal provides a single foundation that empowers marketers to iterate rapidly with visual tools like Canvas while giving IT the granular security and compliance they require.

The Bottom Line: Organizations are not just replatforming legacy sites; they are strategically selecting Drupal as the standard for all new digital initiatives to ensure long-term speed, scale, and competitive advantage.



Drupal 11: The Enterprise-Grade Core That Makes It Possible

While Drupal CMS 2 and Drupal AI deliver the speed and usability modern teams demand, Drupal 11 provides the enterprise-grade foundation that makes that velocity sustainable at scale.



Drupal 11 modernizes the core platform with meaningful architectural improvements — enhancing performance and scalability, strengthening security and access controls, streamlining the codebase for long-term maintainability, and aligning dependencies with current enterprise standards. These advancements are not cosmetic; they ensure the platform remains stable, secure, and future-ready as digital complexity increases.

This foundation enables organizations to confidently support high-traffic, mission-critical digital experiences, scale content operations across teams and geographies, and meet the rigorous security and compliance requirements of regulated industries.

Drupal 11 is not a front-end innovation story. It is a risk-reduction and future-readiness story — ensuring that CMS 2 and AI capabilities operate

with confidence, predictability, and long-term stability. While new major versions of Drupal are released every 2 years, each previous major version receives an additional 2 years of Long Term Support (LTS), which allows organizations to upgrade from LTS to LTS for even more stability.

While the Drupal CMS 2 visual layer (Canvas) continues to evolve its interface for localized editing, the underlying Drupal 11 Core remains the industry leader in multilingual management. Drupal supports over 100 languages immediately out of the box, including complex right-to-left (RTL) scripts like Arabic, Hebrew, and Farsi. Its core architecture handles the full translation of every site element—content types, taxonomy, menus, and user interfaces—ensuring that global organizations can scale across borders without the platform limits that hinder smaller visual builders.



What Drupal Enables for Modern Organizations

Drupal's value is best understood not through a list of features, but through the outcomes it enables for modern digital teams.



Drupal's value is best understood not through a list of features, but through the outcomes it enables for modern digital teams.

First and foremost, Drupal accelerates execution. Organizations can move from idea to launch more quickly, reduce reliance on developers for everyday updates, and create an environment where experimentation and iteration happen continuously rather than sporadically. Teams gain the agility needed to respond to market shifts without rebuilding their workflows each time.

At the same time, Drupal supports scalable operations. It enables consistent brand and experience delivery across regions, business units, and channels. Its structured content model promotes reuse and automation, while AI-powered workflows help teams manage growing volumes of content without increasing operational complexity. As organizations expand, their digital foundation expands with them.

Governance is built into the platform rather than layered on afterward. Clear approval workflows, granular access controls, and enterprise-aligned AI usage ensure that teams can move quickly without compromising compliance, brand integrity, or data security. Security and regulatory considerations are embedded directly into the architecture.

Finally, Drupal supports continuous optimization. AI-assisted content improvement, enhanced discoverability through AI-powered search, and a platform designed to evolve without disruptive migrations ensure that organizations can refine and improve their digital experiences over time.

In short, Drupal enables organizations to move faster today — without limiting what they can do tomorrow.



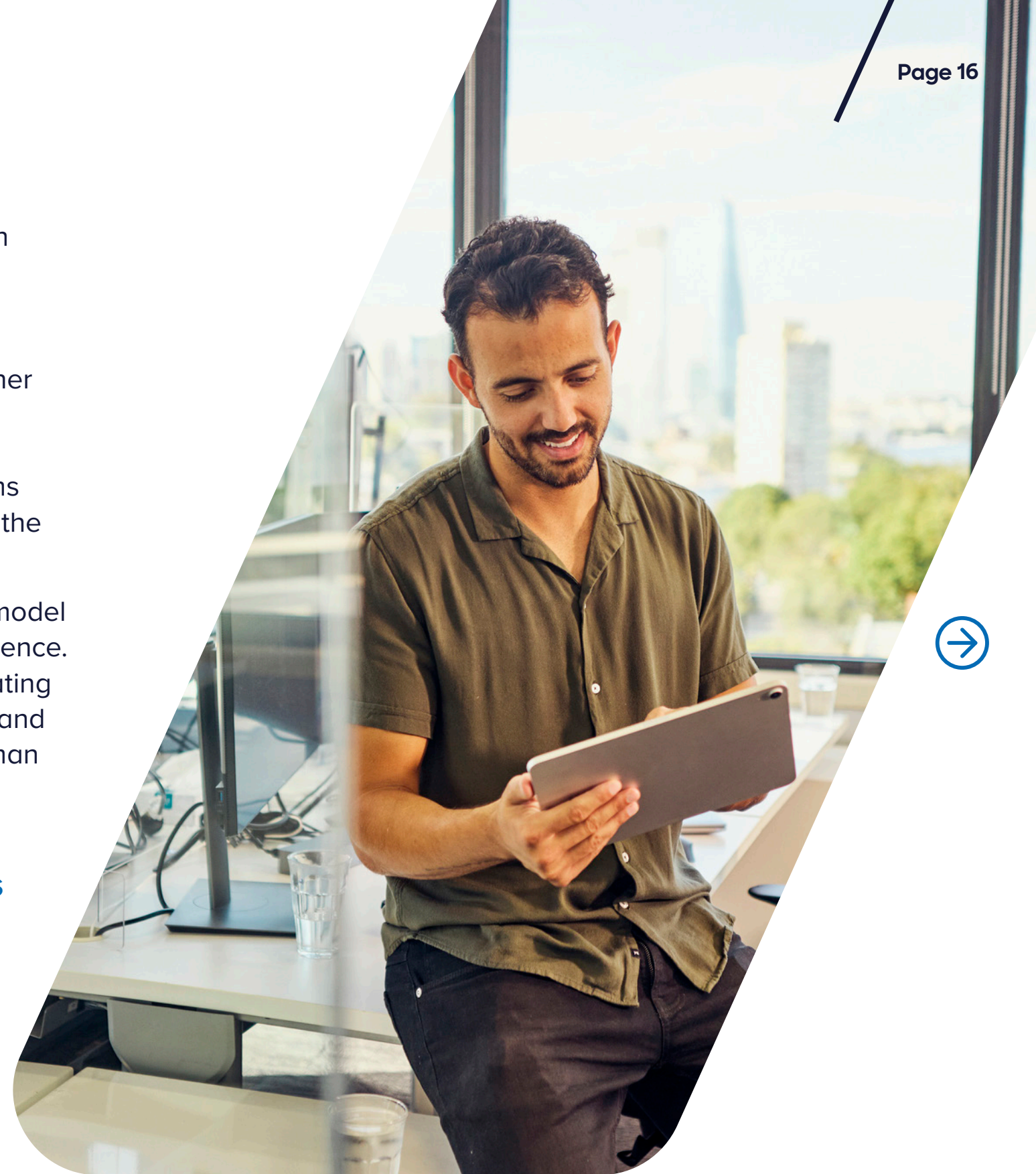
How Teams Work Better Together with Drupal

Modern digital execution depends on tight alignment across teams. Marketing, development, design, and security can no longer operate in silos or in long, sequential workflows. Speed and scale require collaboration without friction.

Drupal is designed to support that collaboration without conflict. Marketers gain the autonomy to build, publish, and optimize experiences independently, while developers focus on extensibility, integrations, and performance rather than routine content updates. Design teams maintain brand consistency through shared, reusable components, and security and IT teams retain governance, visibility, and control across the entire platform.

Drupal CMS 2 establishes a shared operating model where teams work in parallel instead of in sequence. AI capabilities further reduce friction by automating repetitive tasks, accelerating decision-making, and enhancing productivity — all while keeping human oversight firmly in place.

The result is faster execution, fewer bottlenecks, and stronger outcomes across the organization.



The Future of Drupal: Open, AI-Ready, and Built to Evolve

Drupal is built for long-term adaptability in a rapidly changing digital landscape.



As AI capabilities evolve, new channels emerge, and customer expectations continue to shift, organizations need a foundation that can evolve with them. Drupal's open architecture ensures they are never locked into a single vendor's roadmap, pricing model, or technical constraints.

Its future is anchored in open-source innovation driven by a global community, where continuous improvement is a shared effort rather than a proprietary decision. AI is treated as an evolving platform capability — not a fixed feature set — allowing organizations to adopt new models, tools, and approaches as the technology matures. At the same time, Drupal maintains a strong commitment to accessibility, security, and its role as a digital public good. This combination of openness and governance gives organizations the flexibility to adopt what's next without the disruption of repeated replatforming.

While Drupal allows you to rapidly start, it is not limited to short-term convenience. It is designed for organizations building durable, scalable, and intelligent digital experiences that will stand the test of time.



The Drupal Ecosystem: Your Business Longevity Insurance

Drupal's strength extends far beyond its technology; it is a global business infrastructure supported by one of the largest and most active open-source communities in the world.



The Drupal ecosystem serves as a critical selling point for organizations prioritizing stability and long-term return on investment.

Curated Integrations & Immediate Interoperability

Unlike proprietary platforms that force you into a “closed-loop” roadmap, Drupal offers tens of thousands of ways to enhance and extend its capabilities, many of which provide curated integrations. This allows for seamless, “plug-and-play” interoperability with your entire martech stack, including:

- CRM & Marketing Automation: Salesforce, HubSpot, Marketo, and others.
- Digital Assets & Analytics: DAM systems, Google Analytics, Adobe Analytics, and more.
- Commerce & AI: Seamless connections to leading commerce engines and global AI providers.
- Continuous Advancement: Security updates and innovation happen in parallel across a global team, rather than waiting on a single vendor’s quarterly release.
- Expert Support on Demand: A broad ecosystem of certified partners, systems integrators, and AI technology specialists ensures your organization has expert help ready at every stage of your digital journey.

If an integration does not exist yet, Drupal’s open architecture allows you to build new ones rapidly.

A Distributed Model for Innovation and Risk Reduction

With thousands of contributors across hundreds of global organizations, Drupal is protected from the “single-vendor risk” that plagues proprietary systems. This distributed model ensures:

A Digital Public Good for Public Infrastructure

Recognized as a Digital Public Good, Drupal is the global standard for reusable public infrastructure. From the European Commission to national agencies, Drupal’s model allows multiple organizations to build on the same interoperable software stack, ensuring public services are never “held hostage” by proprietary vendor lock-in.

The Bottom Line: For organizations seeking both rapid innovation and enterprise stability, Drupal offers a powerful foundation backed by a global commitment to continuous improvement and business freedom.



Appendices

Appendix A: Technical Architecture & Developer Capabilities

Drupal’s technical architecture is built on a highly modular, “lego-like” foundation that utilizes modern PHP standards, the Composer package manager and Symfony components. At its base, the system relies on a service container and a robust Plugin API, allowing developers to swap out or extend almost any part of the core logic—from how data is cached to how routes are handled. By leveraging dependency injection and an object-oriented hook system, Drupal maintains a clean separation of concerns, ensuring that custom business logic remains decoupled from the core framework. This architecture is designed for high-performance scaling, utilizing sophisticated caching layers and a “composable” approach that allows enterprises to assemble complex digital ecosystems from reusable parts.

For developers, Drupal offers a sophisticated toolkit that prioritizes flexibility and “API-first” delivery. The platform features native support for JSON:API and REST (with GraphQL

support a drop-in capability), making it an industry leader for decoupled (headless) architectures where Drupal serves as a content repository for React, Vue, or mobile applications. Its powerful Configuration Management System allows developers to version-control site settings in YAML files, facilitating seamless deployments across local, staging, and production environments. Additionally, the Entity API and Views module provide a standardized way to model and query complex data structures without writing custom SQL, significantly accelerating the development of data-heavy applications. Drupal’s structural intelligence lays itself very well to AI assisted developer tools.

Beyond backend logic, Drupal empowers developers with a modern frontend experience through the Twig templating engine, which ensures secure and clean markup. The introduction of Single Directory Components (SDC) further aligns Drupal with modern component-based design systems, allowing developers to bundle HTML, CSS, and JS into discrete, reusable units. This is further enhanced by

Drupal Canvas supporting React based components, allowing to build for Drupal even without Drupal knowledge. Backed by a rigorous security team and a commitment to accessibility (WCAG 2.1 compliance), the developer experience is focused on building “ambitious digital experiences” that are secure by default. Whether through low-code site building or deep API integrations, Drupal provides a professional-grade environment for managing the entire content lifecycle at scale.



Appendices

Appendix B: Upgrade and Migration Considerations

Drupal's structured release cycle and overlapping support windows provide a predictable, low-risk upgrade path. In the last decade major version upgrades have become significantly more streamlined, reducing the need for costly rebuilds. Drupal core release cycles consist of 2 years of innovation releases followed by 2 years of Long Term Support (LTS) releases, that prioritise stability even more. This allows organizations to jump from LTS releases to LTS releases for the highest stability.

Drupal 11 continues this approach by modernizing core dependencies and removing deprecated code, resulting in a cleaner and more maintainable platform. Organizations currently on Drupal 10 can upgrade incrementally rather than undertaking disruptive replatforming projects. The same process will continue with Drupal 12.

For organizations migrating from earlier versions, built-in migration tools accelerate

the transition while preserving structured content and governance models. Many teams use migration as an opportunity to modernize their digital operating model — consolidating sites, introducing CMS 2 features, and embedding AI capabilities from the start.

Drupal's upgrade philosophy prioritizes data sovereignty, stability and long-term sustainability, allowing organizations to evolve at their own pace.



Need help with your next Drupal project?



No matter what you want to accomplish with Drupal, Acquia is here to support you.

[Explore Drupal](#)

To stay up-to-date on Drupal, you can also check out the following resources:

dev.acquia.com/drupal11 

linkedin.com/drupal-association 

drupal.org 

drupal.org/about/core 



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About Acquia

Acquia empowers ambitious digital innovators to craft productive, frictionless digital experiences that make a difference to their customers, employees, and communities. We provide the world's leading open digital experience platform (DXP), built on open source Drupal, as part of our commitment to shaping a digital future that is safe, accessible, and available to all. With Acquia DXP, you can unlock the potential of your customer data and content, accelerating time to market and increasing engagement, conversion, and revenue.

