

# Drupal 9

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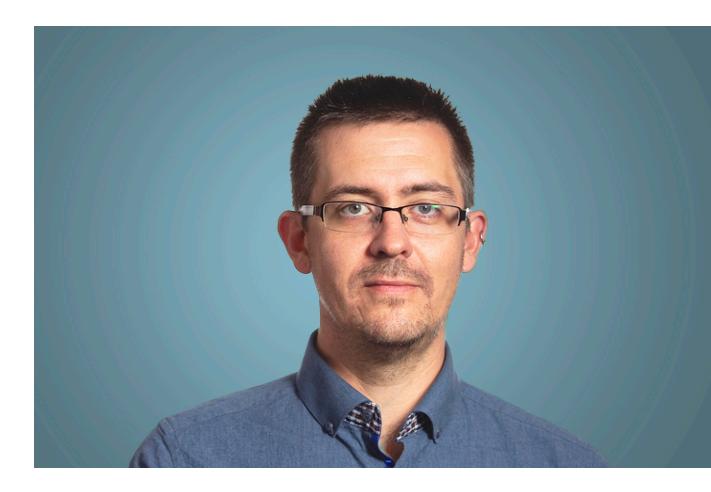
# Migrate & Exceed CXpectations

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#### **About The Author**

Nathan Gervais, Technical Director, is fueled by his passion for Open Source technologies and building digital technologies that empower organizations to lead with a customer-first mindset. Since 2007, Nathan has specialized in Drupal platform migrations and structured content architecture. His commitment to creating valuable digital experiences is supported by his expertise in business solutions related to content management systems. At Appnovation, he leads a team of engineers to be innovative in their solutions-based approach that boost performance measurements by bringing together security, privacy, ethical design, and empathy principles.

"Your tech platforms and ability to be agile are the backbone of digital customer experience. Without strategic and mindful management, you're putting your customers' loyalty on the line."

#### **Nathan Gervais**

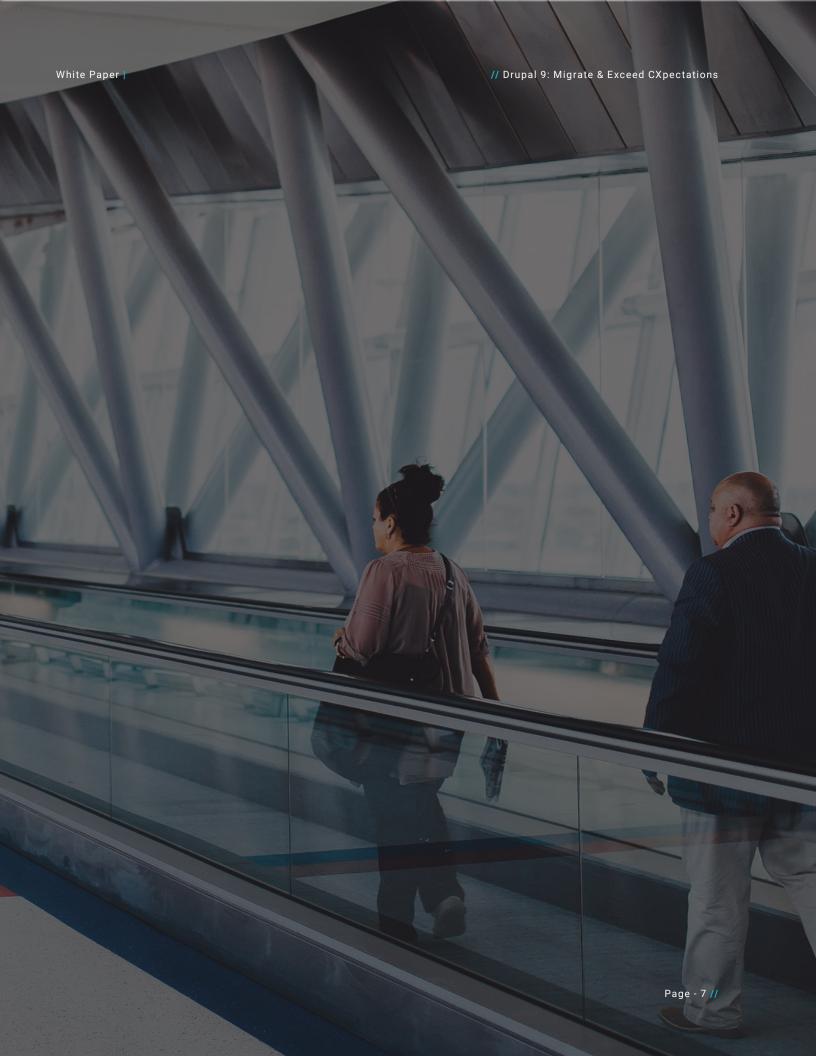
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// Drupal 9: Migrate & Exceed CXpectations

| White Paper

# You Can't Afford To Wait: Moving To Drupal 9 Will Help You Exceed CXpectations



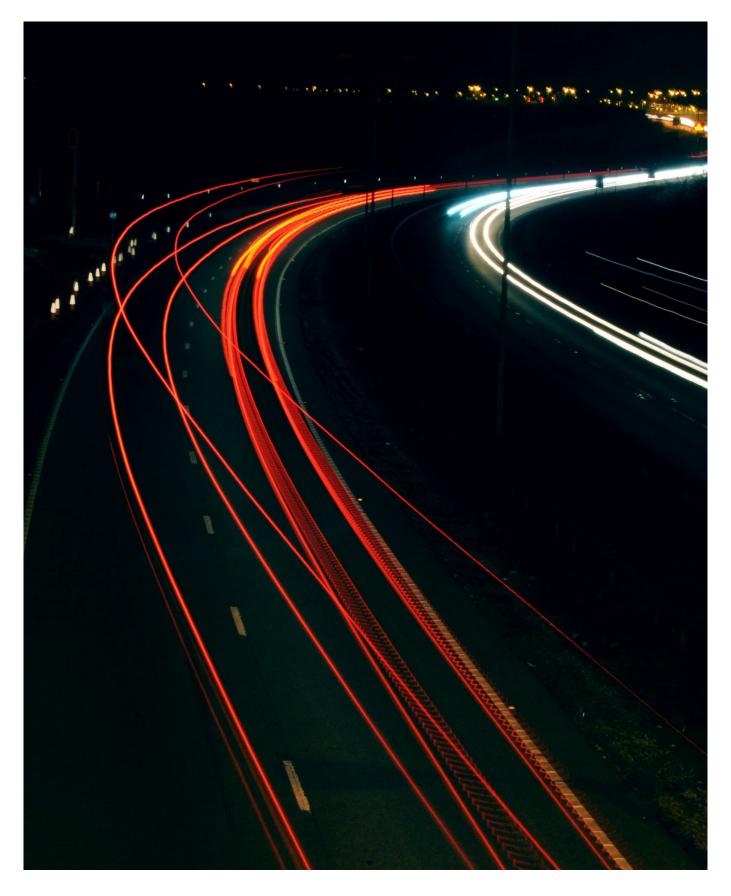
# Why you should make the move to Drupal 9 now

#### The new world is customer-centric

Enabled by a boom in technology, customer expectations are changing faster and growing more sophisticated. With increased options, customers won't wait around to act. And neither should you.

High-performing technology is the foundation on which your entire customer experience is built. You simply cannot create an industry-leading digital organization without the right tech to support your business goals. Your customer's digital and mobile expectations were already increasing exponentially before the beginning of 2020. The beginning of the COVID-19 pandemic has only accelerated them beyond what many companies were prepared for.

This one-two punch of increased demand for amazing digital experiences, in addition to customers' growing expectations, has made the need for a proactive strategic approach to technology more clear than ever. Forrester Research recently published a report in 2019 that states, "Digital experience delivery is not only an opportunity; it's a necessity. AD&D professionals across the organization must transform their firm's customer experience using powerful digital tools, technologies, architectures, and skills."







To update an old saying – if you fail to plan to move to Drupal 9, you plan for your customer experience to fail.

#### Plan now to stay ahead of your competition

Drupal is one of the world's most popular Content Management Systems (CMS). Powering the back-end management for more than 1 million websites, it's a mainstay for thousands of businesses.

#### Summary:

- The latest version of Drupal 9 launched in June 2020. It marks a new beginning for the platform with a host of key upgrades.
- Sites running on Drupal 7 and 8 are, and will, remain open to immediate risks, which include fewer security bug fixes and reduced support.
- Tech support for Drupal 7 will end completely in November 2022 and November 2021 for Drupal 8.

While it might feel like a long time away, from a tech adoption perspective, it's right around the corner. The benefits of the fast adoption of Drupal 9 far outweigh those remaining on outdated versions. For customer-centric organizations, holding off on the switch to Drupal 9 leaves the door wide open for multiple challenges across security, integration, and more. Hesitancy today will put your customer experience at risk tomorrow.

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# Risks of staying on older versions of Drupal

You might be tempted to hang on to older versions of Drupal for the time being. There are several reasons why you shouldn't, many of which lead to wasted time and money down the road.

#### Delaying the inevitable

The most obvious is that a delay is untenable. You will have to make the move before the end of November 2021 and 2022 respectively for Drupal 8 and Drupal 7. Particularly if you need to migrate from Drupal 7, the workload is significant, and to do it right will take time. The longer you wait, the harder you will make the eventual move – exposing yourself to increased risk in the process.

#### Short and long-term security risks

The immediate technical risks include fewer security bug fixes and reduced support for older versions. The most attention and person-power will be focused on maintenance and updates for the core features in Drupal 9.

The major long-term risk would be having a site built on Drupal 7 when full support ends

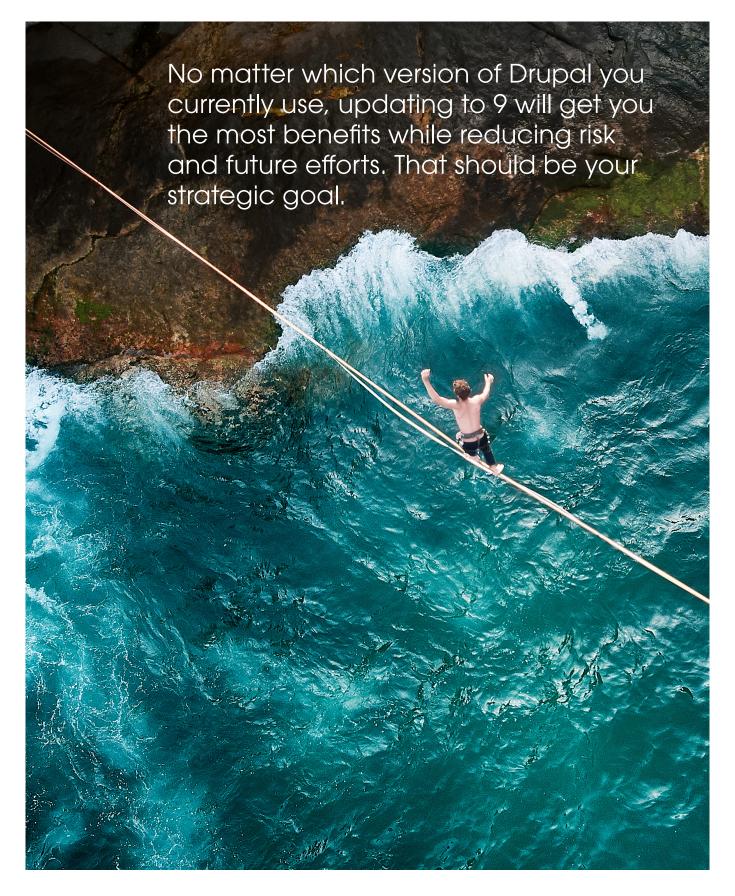
in November 2022 and Drupal 8 in November 2021. That would leave you completely without technical fixes or bug support for your site. You (really) don't want that to happen.

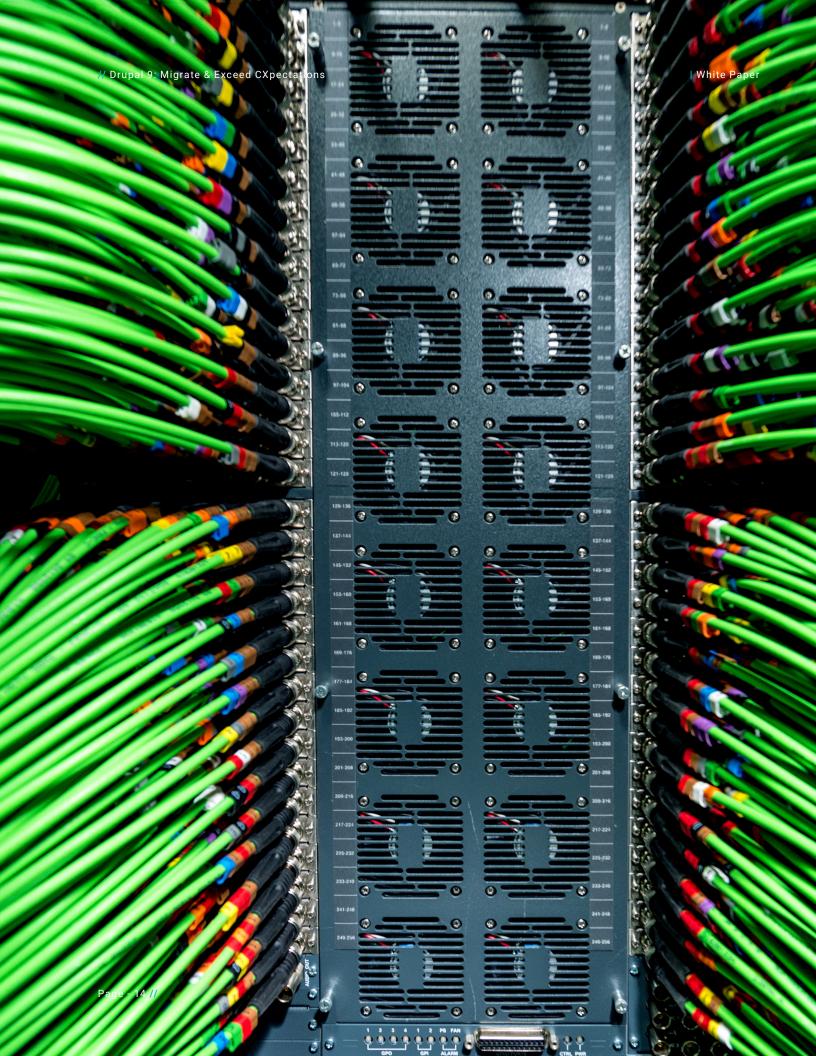
#### Missing key features

Remaining on Drupal 7 means you're missing out on some table stakes features, regardless of when you ultimately make the move to Drupal 9. One of the most important, and obvious, is that Drupal 7 wasn't designed to be mobile-first. With an increasing number of customers accessing the internet only from smartphones, no digitally-savvy business can miss out on that improved ability to optimize applications for mobile.

#### Ignoring best practice

Even without the above risks, it's simply a solid general business practice to always upgrade to the most current version of any tech platform you rely on. When you're running the most up-to-date, you're able to take advantage of a full range of features, bug fixes, security updates, and support.





# How digital-first companies use technology to exceed CXpectations

We talk a lot about digital disruption and how to transform our businesses to prepare for it. In 2020, COVID-19 brought the disruption right to us – whether we were ready for it or not.

To maintain a truly customer-centric experience, leveling up the digital preparedness across your organization is critical. Eighteen months is a relatively long timeline for implementing a tech migration, but depending on the complexity and size of your organization this can also fly by surprisingly fast. Advance warning for the end-of-life of Drupal 7 and 8 support gives us a rare opportunity to be well aware – and prepared – of an impending digital need before it happens.

Pivot planning, agile digital planning, contingencies, and simplified production processes will make sure you've got the flexibility already built into your system to support rapid changes. Migrating to Drupal 9 sooner than later will give you increased flexibility and access to all of these critical business-boosting capabilities. With more aspects of the customer journey relying on digital touchpoints, creating valuable digital experiences is business-critical. This Drupal 9 update supports developing smarter workflows, delivering better experiences, creating a central content repository, and more.



### Five key considerations to meet your CMS needs

Your CMS is a fundamental tech building block of your customer experience. Its capabilities and ease-of-use impact agility and effectiveness across all the internal teams who touch it.

#### 01. Digital Strategy and User Experience

Drupal is designed to put content, commerce, and community first in its solutions. The digital platforms that Drupal supports are the cornerstones of digital transformation and advancement for the brands that use it. They enable not just modern, secure websites, but also content strategies that add value through optimized structures and responsive design.

#### 02. Agility and Scalability

Teams need the right tools to be efficient and agile, and to make the biggest impact whether it's lead gen, conversion, online sales, or brand reputation. Drupal 9's inherently flexible design makes it naturally scalable and easy to work with.



#### 03. Accessibility

The Drupal community is dedicated to accessibility. They've committed that all core features meet <u>WCAG 2.0 accessibility</u> requirements and relevant Drupal modules are built to support semantic markup.

#### 04. Security

Drupal's justifiably proud of a strong, long-term track record in security. Their organized process investigates, verifies, and publishes possible security problems for analysis and solution within the open-source community.

#### 05. SEO-Friendly

Despite running a lot of code, Drupal 8's increased sophistication drastically reduces load times, improving SEO, and overall digital experience.



#### The business benefits of Drupal 9

Drupal 9 brings all the features developed during Drupal 8 and combines them with updated system requirements and components for long security support.

#### Continuous development

Once on Drupal 9, you'll be part of an on-going innovation schedule with feature additions twice each year. Drupal 9.1.0 is already scheduled for December 2, 2020.

#### Familiarity

Developers with Drupal 8 expertise will recognize most of the features of Drupal 9 and won't need to be re-trained. The new improved APIs are cleaned up and consistent, giving devs a modern environment for them to take full advantage of everything Drupal 9 has to offer.

#### Upgraded features and functionality

There are several features that make Drupal 9 stand out in the modern digital marketing landscape. Some highlights include:

#### **Headless Support**

Drupal 9 can be used as a CMS only – integrating with another tech to display pages to the end-user. This gives you the option to run Drupal in the back-end, but, use other technology that's specifically focused on optimized front-end flexibility and speedy load times. In fact, you can tie as many front-end APIs to Drupal as you want – and customize an overall structure that works the best for your business and the type of customer experience you want to create.

#### Multilingual and Multimedia

Driving engagement with top content on mobile is a customer expectation and is critical for any organization. With multimedia capabilities now in the core Drupal offering, capabilities to add video, audio, dynamic images, and more are baked right in. At the same time, multilingual support makes it simpler to run content programs for the growing number of businesses targeting customers across the globe who speak different languages.

#### **Structured Content**

In Drupal 7, it was necessary to build specific pages with set layouts. Drupal 8 created a toolbox, now carried into Drupal 9 so that developers aren't required to build static pages – devs can build layouts and templates

with atomic design components that give businesses the power to build the types of pages they want and evolve them afterwards.

COVID-19 is a great example of how this can be extremely beneficial. Appnovation had clients that were ready to roll and use that toolkit to build new pages, use structured content within existing themes to assemble and re-arrange the parts that they wanted without needing to rely on a developer.

These quick, rapid prototype pages are a great way for marketing and content teams to be able to generate content quickly with better authoring tools and higher visual accuracy.

#### **Content Workflows**

The current demand for high-quality, interactive digital content is higher than ever.

With so much content being created every day, workflows that enable and automate throughout all development phases are invaluable. Drupal 9 does an excellent, direct job of content process management and workflows.

From moderation to scheduling to deployment, Drupal 9 makes it easy to create and approve drafts in a secure editorial environment before moving them to QA or production. Isolated environments are particularly crucial for companies in regulated industries where an accidental exposure of sensitive content could cause fines and harm your reputation. At the same time, following lengthy approvals and edits, you don't want to have to completely re-create content for production and leave yourself vulnerable to small human errors.



#### Why do you want to upgrade?

Before you start planning your Drupal 9 migration, it's critical to identify and build a deep understanding of what your business drivers are. This involves preliminary conversations that will not only highlight objectives but also align them with the best solutions to deliver results.

How does migrating to Drupal 9 benefit your business? What impact and outcomes do you expect to see?

Do you want to take a huge leap in the experience you deliver or reinforce what you achieved on an older version of Drupal?

What best serves your unique circumstance? This would include either a full migration or a refresh of what you have.

What is driving you to consider Drupal 9 - its latest features or Drupal 7's end-of-line?

This is where we can help you and your team evaluate, audit, compare functionalities against business needs, and offer recommendations you can trust.



#### Finding Your Way: Migration Roadmaps

Making the move to Drupal 9 isn't one-size-fits-all. You need to plan your migration path based on your unique business needs and goals. Identifying the right roadmap for your organization will put you on the road to success.





# Moving from Drupal 7 to Drupal 9

As of the beginning of July 2020, more than 62% of all Drupal-based sites were running on Drupal 7. So if you're in that group, you're definitely not alone.

The jump between Drupal 7 and 9 covers a large gap. It doesn't have the same mechanisms and its code is structured quite differently. Because of the large differences with Drupal 8 in the middle, it's almost like you're migrating from something that isn't Drupal at all and into Drupal 9.

This is a complex project with different paths available. Whether you're moving directly to Drupal 9 or take a phased approach from Drupal 7 to 8 to 9, your update needs to be meticulously planned. Taking the time for discovery and exploration to identify your true needs and conducting audits to know where you are (and where you want to go) is crucial.

This all takes time to do well – yet another strong reason why the time to act on migration to Drupal 9 is now.

#### **Upgrade details**

Migrating from Drupal 7 to 9 is a major leap involving extensive and significant changes. You can either:

- Upgrade now to Drupal 8. Ensure you don't have any deprecated or custom code that needs re-writing. If so, the move to Drupal 9 is relatively simple.
- Take action now to get Drupal 7, or older minor versions of 8 ready, to prepare for a Drupal 9 migration as soon as you can.



#### **Action Checklist Drupal 7 to Drupal 9**

Start off with a three-part audit of your current Drupal 7 site to create a full list of the features and modules you've enabled.

#### 1. Feature Audit

- Create a list and take inventory of every module you're using right now
- Prioritize what you want to keep using and what can be dropped
- Build a From/To chart to plan how to migrate each individual module to its comparable version in the latest version of Drupal.

Conducting a feature audit will leave you with a strategic upgrade path that showing how each functionality you're interested in maps out.

#### 2. Content Audit

- Perform the same inventory exercise for all types of content on your current site
- Think of ways you want to enhance your content capabilities, opportunities to merge and streamline what you're doing now with any process improvements you could take advantage of in the latest versions of Drupal.

#### 3. Custom Code Audit

- Once you've defined your current/future state for your features and content, it's critical to look for any custom code you've built outside of Drupal's core offering.
- Quite offen, this code has built out a key feature that's particularly important for your business' operations, regulatory requirements, or other critical needs.
- Can this code be migrated or does it require a complete rewrite? Or, are there alternative ways to accommodate the transition?
- Custom code is approximately 10% of a site – not significant comparatively but usually integral to the site's success.



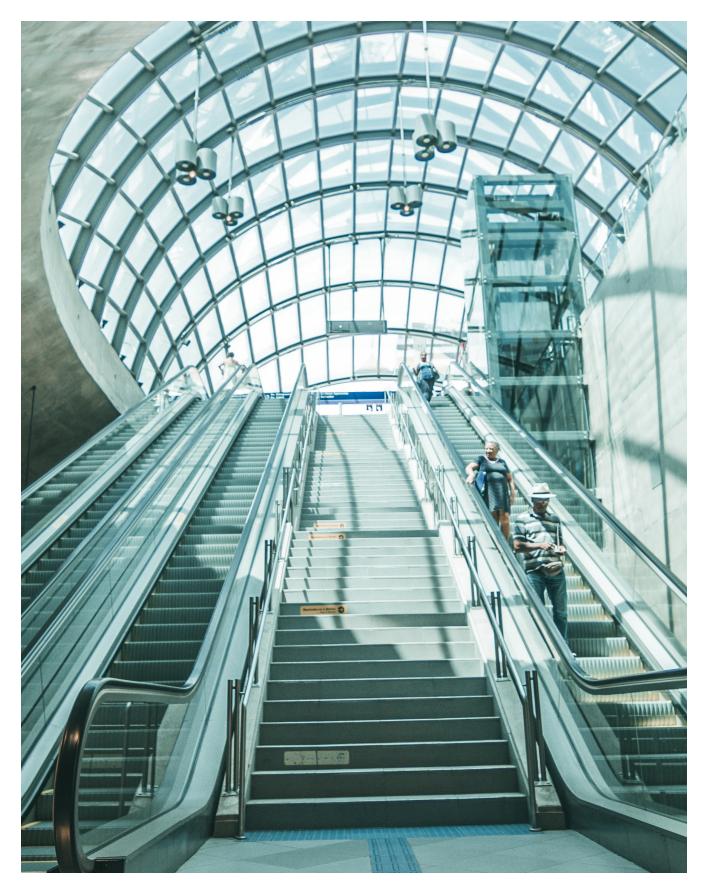
#### How to decide when to stay with a feature or move to a new one

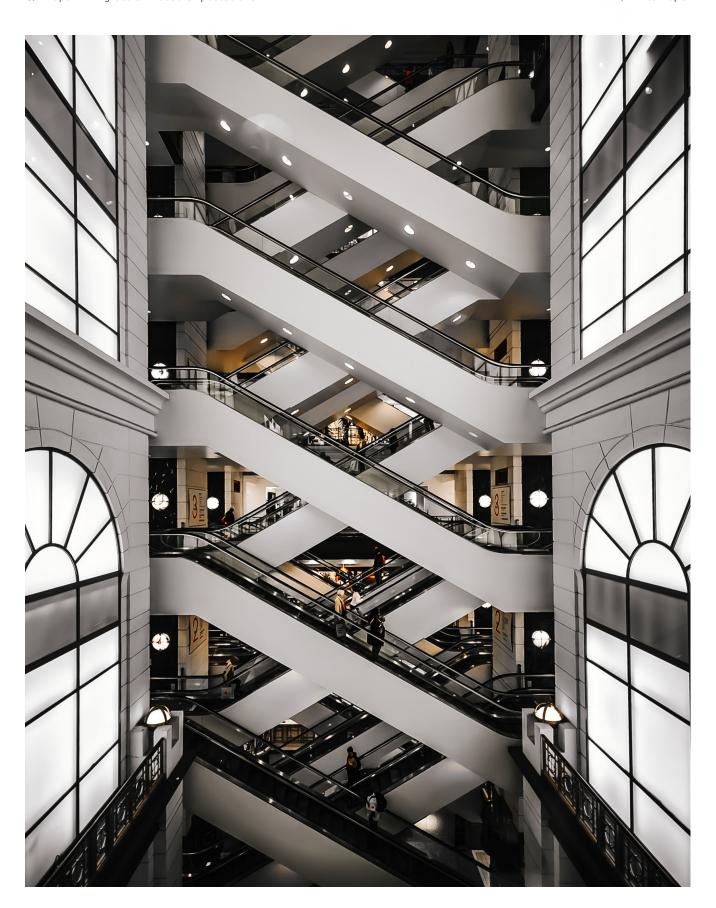
Feature and content audits are highly individual and will be based on your own business needs and perspectives. This is an area where our expertise and guidance can be particularly helpful and guide you to find all the right options that work for you.

For each module you are currently using, there's generally a comparable version that does something very similar (and usually more advanced) in an updated version. It may look different from what you're used to but it delivers the same result. Go through each module one by one and ask yourself if it's adding value and delivering on what you need it to do.

If it's valuable and delivers what you need, then we would identify a comparable or updated module in the version of Drupal you're looking to move to.

If it isn't, then we can further explore what you're trying to accomplish and look at what new modules to add and provide expert consultation to make it happen.





## Moving from Drupal 8 to Drupal 9

In the last decade, previous Drupal major upgrades required a full site re-build. That changed with Drupal 8, which was intentionally designed throughout its lifecycle to evolve toward a smoother upgrade path to Drupal 9.

Drupal 9 is special in that, unlike previous new major versions, it's not a complete remake. It was built on Drupal 8 by deprecating APIs and updating dependencies. This means that a

Drupal 8 to 9 upgrade is relatively simple and straightforward. Still, there are some small details that, if missed early on, can add up to bigger challenges down the road. A thorough migration path, designed by experienced Drupal experts, can take all of this into account to harness the inherent upgradability built into Drupal 8.

#### **Upgrade Details**

The move from Drupal 8 to 9 is relatively simple. The first and most influential step will be an audit to determine if you have any deprecated or custom code that needs re-writing.

Essentially, you need to be on the last minor version of Drupal 8, version 8.9, before you can migrate to 9. This will allow you to take full advantage of everything Drupal 8 has to offer while giving you time to do some housekeeping checks for the two key differences between Drupal 8.9 and 9.0: deprecated code and third-party dependencies.

# Differences between Drupal 8 and 9

#### Deprecated code in Drupal 8.9 and why it matters

Drupal 9.0 was designed to be the same as the last minor version of Drupal 8, except for two key things: deprecated code and third-party dependencies.

As Drupal 8 improved its platform with each minor release, old code was left to maintain stability. Now that we've reached a major upgrade that brings together all the improvements developed throughout Drupal 8's lifecycle, the deprecated code has to be dropped to move into the new world of Drupal 9.

- If you've been keeping up to date with minor version updates of Drupal 8 as they went live, then you're ready to make a relatively simple move to Drupal 9.
- If not, then you'll have to catch up and upgrade to the latest minor version of Drupal 8 before starting the switchover.
- This assessment step is key for Drupal 8 users. There are several automated tools available from Drupal that you can install to conduct an automatic audit of all your current modules and get step-by-step instructions on how to migrate easily to Drupal 9.

On top of all of Drupal 8's existing functionality, Drupal 9 adds:

Improved security and stability with Symfony 4 and PHP 7.3 or later	Twig 2	CKeditor 4, with planned support for CKeditor 5 in a future Drupal 9	Use of jQuery itself, but removes jQuery UI components	Increased database version requirements for all supported
PHP 7.3 or later		future Drupal 9 minor version	components from core	all supported database backends





This is another key area where we can add value. Migrations are an exercise in planning and at some point can impact front-end experience. Having managed dozens of migrations over the years, we've built the ability to migrate and capture data without impacting the customer experience. These coordinated efforts require a lot of communication, proactive

planning, stakeholder management, technical support, and assessment. There are unique challenges with each client that are small projects unto themselves. We've been there, done it many times, and can consult in advance on what to watch out for and how to address potential roadblocks before they evolve into major problems.

#### **Action Checklist - Drupal 8 to Drupal 9**

There are some key requirements you need to be ready to meet:

- PHP 7.3 or higher
- MySQL 5.7 or higher
- MariaDB 10.2 or higher
- PostgreSQL 9.6
- SQLite 3.26



#### Tip to get started:

Use an upgrade tool like <u>Drupal Check</u> to make sure you're using the most current version of all modules and that your site isn't using any code that will be deprecated.

### Moving from another CMS to Drupal 9

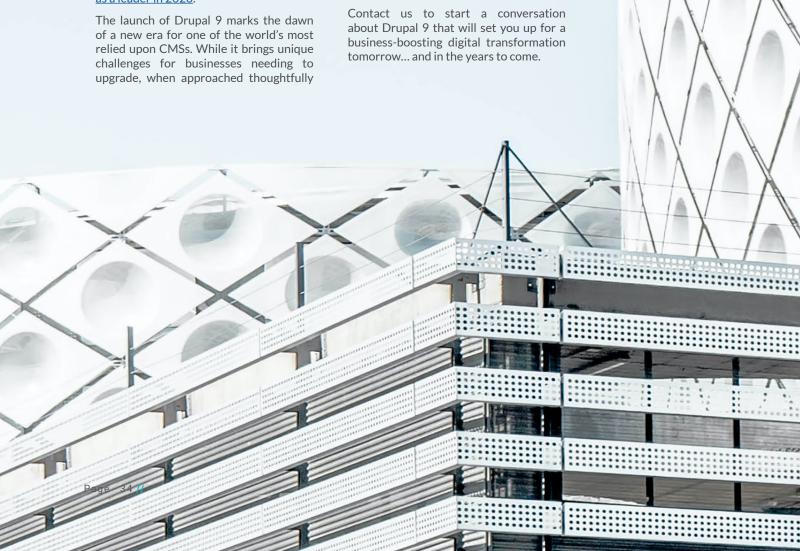
One size doesn't fit all. Businesses have unique needs from their CMS. There's a variety of benefits to using different platforms, and based on your top-level goals, each has its own advantages and drawbacks.

That said, Drupal is popular for a reason. Your needs are unique. Strategy along with mapping out your business drivers and objectives is where we start the process to ensure long-term success. Evaluating what you need from a CMS, then selecting the best one to meet your needs – now and for the future – is the critical step.

Gartner's Performance Magazine for over a decade has been ranking Digital Experiences Platforms in their Magic Quadrant – identifying leaders who have created solutions that help businesses push their digital-first, customer-centric strategy even further. Our partner, Acquia, Drupal's commercial entity, ranks as a leader in 2020.

it's also an incredible opportunity for your business to push their digital-first, customer-centric strategy even further.

Our team of Drupal experts know the platform inside and out and have successfully consulted some of the world's leading brands through their own migrations and upgrades.





#### Who We Are

Appnovation is a global, full-service digital consultancy. We deliver people-inspired business solutions to our clients. How? By embracing the powerful combination of technology and agility, we seamlessly integrate strategy, experience, design, development and analytics.

We create standout digital experiences by collaborating with brands to understand the individual challenges and goals for every initiative. Focusing on our clients' customers, we effectively combine empathy, evidence and real-world insight so that solutions are derived from truth and meaning. Appnovation is an award-winning team dedicated to inspiring possibility.

#### **Appnovation. Inspiring Possibility.**

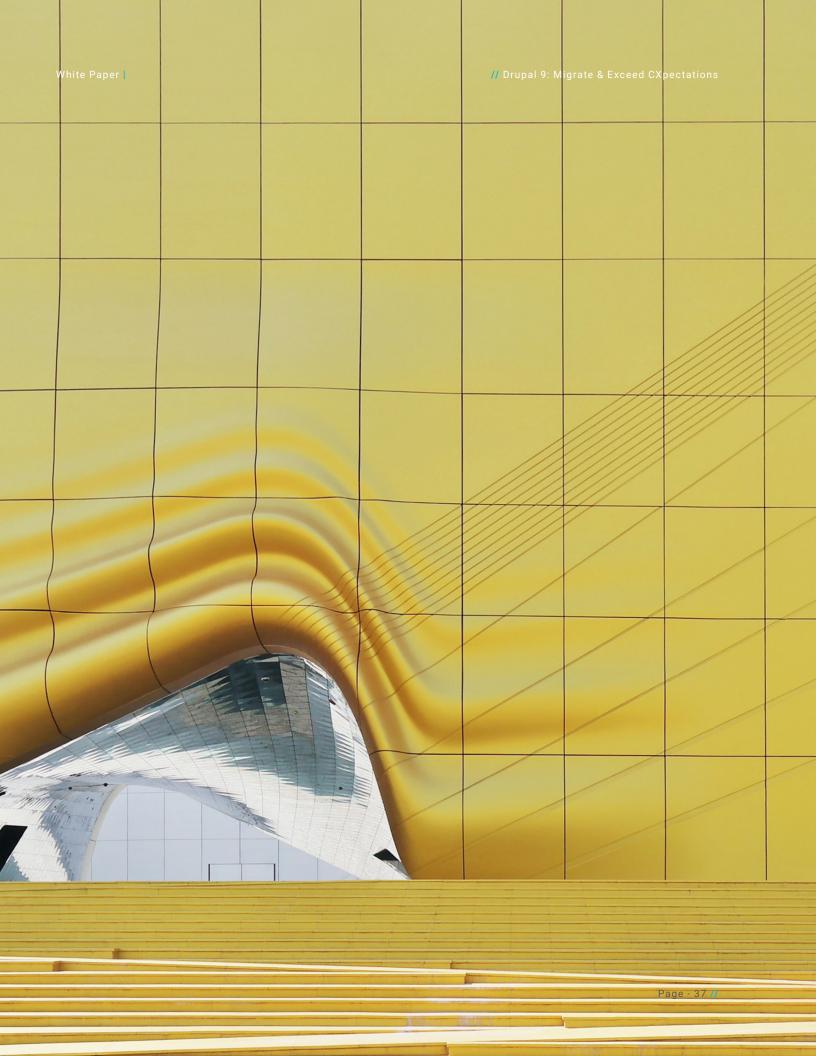
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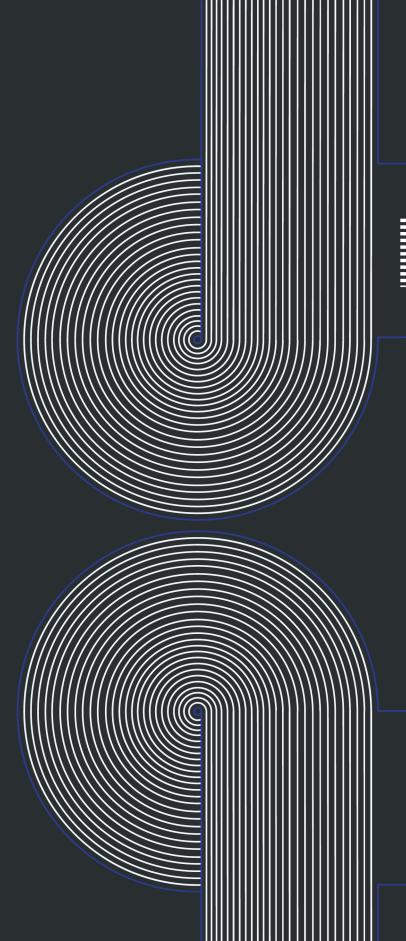
#### **Inquiries?**

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