



Everything You Need to Know About Upgrading to Drupal 9

WHITEPAPER

The new Drupal 9 is all set for a June 2020 release. The end-of-life of incumbent Drupal 7 and Drupal 8 will be November 2021. Website owners have to start preparing now for a seamless and disruption-free transition.

WHAT TO EXPECT FROM DRUPAL 9?

- ❖ The latest Drupal 9.0 promises a forward-looking codebase. The fresh codebase with a clean slate will offer a good platform to launch innovation and boost efficiency.
- ❖ The primary goal of Drupal 9.0.0 release is to remove deprecated code and update third-party dependencies. Drupal 9 will be the last version of Drupal 8 with all deprecation removed.
- ❖ Drupal's continuous innovation model, which was set in post v 8.0 release, rolls out functionality advances every six months. As such, the new functionality in Drupal 9 will be minimal.

RECONCILE THE PANGS OF CHANGE

- ❖ The conventional release model accumulates all new features to a major release. A new release would usually take place many years after the release of the incumbent version. The intermediate releases would be confined to bug and security fixes or minor tweaks. Such an approach makes upgrading a CMS disruptive.
- ❖ Website owners often find the incumbent version convenient, compared to an upgrade. Rewriting code, APIs and reworking dependencies, required for an upgrade, involve many hassles.
- ❖ Upgrading from Drupal 4.6 to Drupal 4.7 required form rewriting, which broke hundreds of contributed modules and led to major quality issues. Likewise, upgrade from Drupal 7 to 8 involved a steep learning curve.



Solution Checklist

To ensure a seamless upgrade from Drupal 8 to Drupal 9:

- ❖ Upgrade to the latest Drupal 8.8. Drupal has changed the conventional release model. Drupal's commitment to providing a smooth upgrade for modules, themes, and distributions from one six-month release to the next makes every increment upgrade easy and seamless.
- ❖ Upgrade to the latest Drupal 8 APIs. Drupal 9 is being built using Drupal 8 codebase and technology. Drupal 9.0 will be almost identical to Drupal 8.8. Upgrade from Drupal 8 to Drupal 9 will be as easy as a simple bug fix or security release.



IDENTIFY “DEPRECATED CODE”

- ❖ Upgrading to Drupal 9 from Drupal 7 or Drupal 8 requires skilled management of depreciated code. Depreciated code is code marked for replacement with better alternatives. Usually, code marked as “depreciated,” continues to work for some more time. The extra time allows developers to update their code. For instance, some code to generate links, depreciated in Drupal 8.0, still works in Drupal 8.7, three years after Drupal 8.0 launch.
- ❖ The more the innovation, the more the quantum of such depreciated code. Over time, maintaining backwards compatibility to support depreciated code makes the codebase complex.
- ❖ Drupal 9 promises a clean state with all depreciated code removed. However, this raises a challenge for developers to upgrade legacy code. Upgrading to Drupal 9 without changing the depreciated code will cause such code to stop working. In such an eventuality, the website may not work.
- ❖ The first challenge is to identify the depreciated code on the website



Solution Checklist

The following are some of the options to check if the website is using depreciated code:

- ❖ Run Drupal-check, a static PHP analysis tool. This tool runs against the codebase to check for depreciated code. The best option is to run Drupal-check automated, as part of the development workflow.
- ❖ Install Acquia’s Upgrade Status module. The module is a user-friendly layer atop Drupal-check. The module provides a graphical user interface atop Drupal-check. It offers an easy-to-use readiness assessment for Drupal 9 migration.



- ❖ Developers maintaining projects on Drupal.org could enable Drupal.org's testing infrastructure to detect deprecated code. The two ways to do so are to
 - Run a static deprecation analysis
 - Configure existing tests to fail when calling deprecated code.
- ❖ Both these methods may be set-up in the drupalci.yml configuration file.



CHANGE THE DEPRECATED CODE

- ❖ Identifying deprecated code is one thing. Changing it is another thing altogether.
- ❖ Replacing most deprecation is a simple matter of search-and-replace, with alternative codes. But some deprecation would need detailed refactoring.
- ❖ The presence of deprecated code in contributed modules compounds the problem. The compatibility of contributed modules has always been a big obstacle to smooth upgrades.



Solution Checklist

- ❖ Any Drupal 8 module not using deprecated code will continue to work with Drupal 9, with no changes required. Thus, if the site does not use any deprecated code, the migration will be smooth and seamless. The upgrade to Drupal 9 will be as easy as a minor version upgrade, such as say, from Drupal 8.6 to Drupal 8.
- ❖ Code identified as deprecated need replacement before effecting a migration to Drupal 9.
- ❖ Refer to the API documentation for detailed instructions on how to remedy the deprecation and make replacements.



- ❖ If deprecated code exists in a contributed module
 - File an issue in the module's issue queue on Drupal.org.
 - This is assuming someone else has not already done so.
 - If possible, provide a patch to fix the deprecation.
 - Engage with the maintainer to get it committed, or wait for someone else to provide a patch.
 - Drupal encourages contributed module maintainers to remove all deprecated code by June of 2020.
- ❖ Drupal user Dwayne McDaniel (Pantheon) has run a check of all 7,000 contributed modules for Drupal 8 using drupal-check. The check reveals 44% of the modules have no deprecation warnings. The remaining 56% of the modules need updates. But most of the modules needing upgrades have less than three deprecation warnings.



THE CHALLENGE OF MIGRATING FROM DRUPAL 7

- ❖ Many websites still run with Drupal 7. Site owners did not bother to upgrade to Drupal 8 for various reasons. They remain content with what works, adopting the philosophy of not fixing something not broken.
- ❖ The status-quo approach will not work with Drupal 9. Website running on Drupal 7 will have a large chunk of deprecated code, forcing an upgrade. Also, Drupal will drop official support for unsupported PHP versions along the way.

Solution Checklist

- ❖ The best option for Drupal 7 users seeking to migrate to Drupal 9 are to upgrade to 8 first, and then Drupal 9.
- ❖ As the first step, Migrate to Drupal 8. Drupal 8 offered some significant upgrades from Drupal 7:
 - Integrated configuration management for easy control over data and component display.



- Centrally managed and effortless authoring, facilitating out-of-the-box media management
 - Multilingual capabilities, allowing a choice from over 100 languages.
 - Universal accessibility. Developers could create highly usable dynamic content interactions
 - Mobile-first design
 - Improvement in page load times, with enhanced caching features
 - Iron out the glitches in the significant improvements introduced in Drupal v8.0.
 - Effect full data migration from Drupal 6, 7 and 8 to Drupal 9.
 - Upgrade the PHP version to the latest version
- ❖ Site owners updating their website with the latest version of Drupal 8 will be well prepared for Drupal 9. Drupal 9 in essence will be the same as Drupal 8.8 with the deprecated code removed. The new features and functionality will be incremental, and no different from any normal six-month cycle updates of Drupal.
- ❖ Website owners who start to prepare for Drupal 9 now can reap the benefits of the most modern, secure, and high-performance CMS by June 2020.





Founded in 2009, Suyati Technologies partners with clients to engineer great experiences for digital customers. We collaborate with businesses to strategize and implement impactful digital initiatives that position our clients ahead of the competition. We are digital-first and we focus on delivering great customer experiences that accelerate exponential growth.

Our custom technology solutions ensure that you win stakeholder support, secure early wins through competitive advantage, and transform your business for future growth. And our tailor-made platform, Mekanate, helps you discover your business DNA from your passive and active data, and use it to initiate, integrate and achieve operational efficiency.

With our niche and rich expertise in a wide range of technologies and services - CMS, CRM, e-commerce and Marketing Automation. We help companies across the globe leverage their best on web and cloud platforms.

Learn more: www.suyati.com

Get in touch: services@suyati.com

