# Why Big Sites Run Drupal

Jessica Meyer Maria | April 26, 2012



For the Georgia Technology Authority (GTA), the decision to dump its aging content management system (CMS) was easy. Running 65 state government websites on two different versions of proprietary software — Vignette 6 and 7, one of which is no longer supported — had become cumbersome and costly. And moving all sites to Vignette 8 was too much of a "force fit," said state CTO Steve Nichols.

Instead of buying another proprietary package, Georgia chose an open solution that's quickly gaining favor among state and federal agencies. "As we dug in, all the obvious best choices were open source," said Nichols. The strongest of those contenders turned out to be Drupal, which powers Whitehouse.gov and other key federal government sites.

Though the deployment is only midway through completion, Nikhil Deshpande — director of Georgia.gov Interactive, an office within the GTA — could not be happier. "I would absolutely recommend Drupal as an option, based on this experience," he said.

"In looking for a new CMS for all 65 websites, we had to meet important criteria," explained Deshpande. "No. 1, it had to be an enterprise solution. Second, we needed to move off the proprietary model that had become too expensive. Last, we looked for a solution with major market share. What really sold us on Drupal was its enormous market share in government and the public sector in general. The success of all the federal government sites convinced us."

Drupal powers more than 150 sites for the federal government, including the White House; the House of Representatives; NASA; and the departments of Education, Energy, Commerce, Health, Defense, Justice, Transportation, Homeland Security and Agriculture. It was perhaps the 2009 decision to move Whitehouse.gov and its associated sites to Drupal that gave the open source platform its biggest boost and gave other government agencies the confidence they needed to follow suit. To date, 34 state and territory agencies also use Drupal, with every new adopter solidifying the offering and creating new avenues for innovation.

The Department of Energy, for instance, moved to Drupal when it became clear that Energy.gov needed immediate attention: Traffic was low, bounce rates were high and the site design focused around an internal office structure that was notoriously difficult



to navigate.

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**Photo:**  *Cammie Croft, director of new media and citizen engagement, Office of New Media, U.S. Department of Energy. Photo courtesy of Cammie Croft.*

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"The prior CMS supporting Energy.gov was outdated," said Cammie Croft, director of new media and citizen engagement for the department's Office of New Media. "To make matters worse, I discovered that the Energy Department had lots of outdated digital technologies. I sought a solution that would be able to scale and adapt to many requirements — those known and those yet to be discovered. I wanted a solution that would empower the Energy Department to evolve and develop as quickly as our users' needs."

The Energy.gov build has resulted in cost savings upward of $10 million annually to taxpayers, through the consolidation of duplicative digital technology platforms

and expensive internal hosting solutions, along with using the Drupal platform to disseminate information for new initiatives, rather than building new, stand-alone websites. If it's good enough for the federal government, some say, isn't it good enough for any government agency?

Drupal open source software is maintained and developed by a community of more than 630,000 global users and developers. Distributed under the terms of the GNU General Public License, Drupal is free to download, use and share.

"I classify Drupal as an open source Web infrastructure and complete social publishing platform," said Michael Caccavano, developer-turned-CEO of the Treehouse Agency, the vendor responsible for Energy.gov and other Drupal government projects.

Because it's open source, Drupal works to remove silos and barriers to innovative development through collaboration, making it ideal in the government sphere. In the private sector, to be sure, there is no advantage to giving a competing business any intellectual property, but in the public sector it's the opposite. The more government agencies that share code through Drupal, the more every agency using Drupal benefits.

But a lot of Drupal's government growth is driven by the same reasons it is gaining private-sector popularity. "Due to its flexible, modular architecture, Drupal can be used for small to incredibly large builds. You can still meet niche needs while meeting the robust needs of the enterprise," said Jacob Redding, executive director of the Drupal Association, which supports the Drupal project and maintains Drupal.org.

At its most basic level, the argument for Drupal tends to be financial. As an open source model, it spares user agencies from costly licensing fees and vendor lock-in. The resulting cost savings can be redistributed, adding value in other ways.

"Drupal's selling point, in many ways, is value," said Eric Miller, principal for Portland, Ore.-based Squishymedia, the vendor behind Drupal builds for the U.S. Department of Agriculture, National Oceanic and Atmospheric Administration and the state of Oregon. "It is a very stable, mature platform that is not a cobbled-together, makeshift solution. It offers flexibility, robustness and scalability, along with a compelling [total cost of ownership] calculation."

For public-sector users, in particular, Drupal offers several incentives. The community-driven nature of the platform allows government agencies to feed back into its development and growth, ultimately influencing how Drupal evolves. "That's where open source really starts to pay dividends," said Treehouse Agency's Caccavano.

"Government agencies are in the business of serving the public. With open source in general, and Drupal in particular, agencies are able to achieve a bigger public benefit from a single investment," said Kurt Voelker, CTO of Forum One Communications, the vendor behind a Drupal build for the International Programs Center of the U.S. Census Bureau and a recently awarded three-year Drupal project for the U.S. Environmental Protection Agency. "With Drupal, agencies can share and reuse code, reducing labor costs, and drastically accelerate the pace with which every agency can innovate."

Possibly the biggest hurdle to Drupal adoption in government — security — has all but eroded, said Jeff Walpole, CEO of Phase2 Technology, the vendorbehind the Georgia migration, House of Representatives and FEMA, and part of the team that completed Whitehouse.gov. With the White House's adoption of Drupal, questions and criticisms around security and compliance no longer hold much sway. "Lack of understanding, fear, uncertainty, doubt, concerns around security — those things have all really dropped off in the last year," he explained.

Drupal has made major strides on security and compliance issues, added Squishymedia's Miller, with strict adherence to best practices, and access to all source code for security and auditing purposes. Still, he said, there is a level of flexibility and agility required to explore open source, which by nature is about free software and agile development.

"I was part of the White House New Media team when Whitehouse.gov moved to Drupal, and I experienced firsthand how it helped pave the way for other government entities to make similar transitions," said Croft from the Energy Department. "The unique requirements of developing for government — from security to accessibility mandates — were wrestled with and subsequently resolved and helped make the case for a smooth adoption of Drupal at Energy, and for any other government entities, for that matter."

Still many agencies remain wary of Drupal, because they fear it means giving up their reliance on Microsoft Windows and/or SharePoint and moving entirely toward a LAMP stack solution, or undergoing a complicated integration that requires very different skill sets for maintenance. There may also be resistance to make the move for agencies in the midst of long Windows software contracts, as often agencies already own SharePoint as part of an existing deal.

But Drupal's ability to integrate is "limitless," said Treehouse Agency's Caccavano. "It is very compatible with other solutions and services. That's probably one of its greatest strengths."

It's likely that proprietary solutions such as SharePoint will continue to coexist with Drupal in many agencies. Gartner listed Microsoft as one of only three leaders in its annual Social Software in the Workplace Magic Quadrant in September. The research firm predicted that more enterprises will use SharePoint to collaborate and enable social solutions than any other platform. Perhaps because of this popularity, purchasers are willing to pay a premium for licensing and maintenance fees, rather than go the open source route.

"There are pros and cons to each," said Chris Johnson, general manager for Microsoft Gold Partner Provoke, and former technical product manager for Microsoft. "And IT spending on Microsoft licensing is typically only 3 percent of an IT budget."

"There are still very real hindrances to Drupal adoption in government," said Phase2's Walpole. "There is a sort of entrenched software industry model, with technology

stacks, licensing and entrenched vendors, in part due to long procurement cycles in government. Agencies tend to favor vendors over solutions. But Drupal is as much a framework as it is a product. It is highly customizable and doesn't necessarily fit within a known purchasing system."

All that said, however, the "bully pulpit" of the White House is immensely powerful, Croft said. That project helped to spawn a talent pool of Drupal engineers, qualified to work on complex government projects.

With big federal government success stories, state and local governments are finding that they too can ride the Drupal wave. One reason Drupal can be so easily tailored to very large and small deployments is that it works on a modular system. "Distributions" are sets of bundled modules, features and functionalities, geared toward a specific audience. OpenPublic, an open source CMS based on Drupal developed by the team at Phase2 Technology, is the most popular example tailored to the needs of government.

The Oregon Arts Commission and Oregon Cultural Trust (OCT) recently launched new sites using Drupal, in a move away from using Dreamweaver as a platform. Shannon Planchon, assistant director for the Oregon Arts Commission, said Drupal's attractiveness is in the freedom it allows, the level of staff involvement and its sophistication. The original sites could not be managed in-house, and for the OCT in particular, as a marketing site that needs to be refreshed and updated frequently, it was critical to move to Drupal.

Although cost savings for the commission and OCT are hard to quantify at this stage, Planchon said that with Drupal, they have  more control and a more responsive site. Georgia's enterprise CMS, by comparison, is expected to result in enormous cost savings, through reuse of much of the initial development, reduction of redundancy and lack of licensing costs. "We had to justify the migration with a business case," said Georgia.gov Interactive's Deshpande. "Over the next five years, [total cost of ownership] savings will be approximately $14 million."

Today, Drupal is a proven solution that has been leveraged at the federal, state and local levels to address key challenges. Structured in a way that supports integration with proprietary systems and third-party solutions, Drupal allows real and powerful access to system functions, as well as enormous customization, without changing core code.

The outlook for Drupal is positive, considering its tremendous growth within the public sector. "Just look at the White House and now the state of Georgia," said Forum One's Voelker. "Once a technology starts making those kinds of inroads, you're looking at a time horizon of half a decade, at least."

***Editor's Note:***  *After being interviewed for this article, Treehouse Agency and Phase2 Technology merged. Phase2 CEO Jeff Walpole will remain CEO, and Michael Caccavano, CEO of Treehouse Agency, assumed the role of president of Phase2.*