



# The Great Open Source Migration

Agencies Are Turning to Open Source Solutions Like Drupal to Get Mission-critical Information to Citizens and Customers While Increasing Efficiency, Cost Savings, and Innovation

We live in a world where information is at our fingertips—technology has given us extraordinary access to collaboration, transparency, and efficiency.

“The innovative use of technology is fundamentally transforming how the American people do business and live their daily lives,” said President Barack Obama in 2012 when discussing the need to create a 21st century digital government. “Innovators in the private sector and the Federal Government have used these technological advances to fundamentally change how they serve their customers.”

With advances being made every day, government leaders know that it’s critical for agencies to not fall behind the times. Agencies need to invest in technology that meets the demands of today—technology that isn’t stuck in the past and helps us anticipate future demands.

Modernizing with shared-platform, common agile software, and open source technology solutions has the potential to revolutionize government, but agencies must step out of their comfort zones and full-heartedly embrace their potential. Many agencies have been turning away from costly legacy platforms and content management systems (CMS) and toward systems based on open source cloud computing.

## The Modernization Imperative

Although modernization is on the minds of agency leadership, it’s a long haul between planning and implementation. According to a recent Government Business Council study, on average agency leaders give their agencies a “C+” grade in their digital efforts.

Nearly 70 percent of current federal IT budgets are spent maintaining legacy systems that are, on average, 20 years old or older. Some agencies are operating on systems created more than 40 years ago. But regardless of age, this means that only 30 percent of IT budgets are being used to develop and procure new technologies—a troubling statistic given the importance of technology to mission-critical systems that people use and rely on every day.

Federal leaders cite limited budgets, skill gaps, and legacy systems as some of the biggest challenges to digital government. But once an agency has a large amount invested in a proprietary system, how can leaders justify moving away from it, especially given today’s



tough budget climate?

Legacy systems can exacerbate budget and skill concerns, as well as hold back performance. Most are written using the Common Business-Oriented Language (COBOL), a programming language developed in 1959 and rapidly becoming ineffective and obsolete. Tech experts today are often inadequately trained to work with COBOL, because new programming languages exist that are better suited to modern demands. With more than a third of federal employees eligible for retirement by 2017, this leaves agencies posed for disaster.

Perhaps more importantly, although it is possible to work within the existing frameworks, it’s a bit like trying to send

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emails with an early flip-phone: Perhaps possible with enough configuration, but certainly not ideal. In fact, because legacy systems are being forced to do more than they were originally designed for, they require constant attention and extensive upgrades. This is extremely expensive and does little more than put a temporary fix on the problem.

Digital legacy systems are composed of proprietary software code that is expensive to develop, cannot be seen by the purchaser, is prone to operational failures, and does not change with the pace of innovation. These challenges affect the efficiency, security, and reliability of websites that strive to be agile and resilient tools that help agencies serve their missions and citizens.

The recently released CIO's *U.S. Digital Services Playbook* sums it up: "Today, too many of our digital services projects do not work well, are delivered late, or are over budget. To increase the success rate of these projects, the U.S. government needs a new approach."

## Open to Innovation

Since the inception of open source in 2001, corporations and individuals have been using platforms such as Drupal—an open source content management platform that is the basis of millions of websites—as an alternative to closed source proprietary software. Although government originally lagged behind, in recent years they too have begun to embrace open source platforms that reduce mission-hobbling software bugs 50 to 150 times lower than typical proprietary software.

"For too long, the American people have been forced to navigate a labyrinth of information across different government programs in order to find the services they need," said President Obama.

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## Open cloud technology bolsters agencies to operate at peak performance with solutions that are secure, scalable, flexible, efficient, and encourage collaboration.

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The unprecedented computing capabilities and consumerization of technology has irrevocably raised people's expectations about the availability and delivery of information and services. To meet those expectations, agencies looking to move past their antiquated legacy systems are rapidly adopting Drupal. When Drupal is combined with cloud computing—through which information and software is stored virtually in a "cloud" and then provided to individual computers, allowing for resources to be pooled—the resulting system is highly flexible, scalable, and efficient.

Surveys reiterate the importance of these new systems. A recent study of federal IT executives shows the adoption of cloud offerings can save the U.S. government \$20.5 billion a year. Fully 95 percent of respondents believe their agency would benefit from migration to Platform as a Service (PaaS) software, and nearly 80 percent of respondents identified new development as essential to meeting mission goals and creating meaningful civic engagement.

The efficiency of Drupal and open cloud reduce IT infrastructure costs, in part because systems do not have to be replaced as new technology emerges—they can simply be updated. Since migrating Energy.gov to the Drupal open cloud platform, the Department of Energy has realized savings of more than \$10 million. The National Institute

of Biomedical Imaging found this new platform not only saved them money, but also helped them increase their agency's visibility by generating wider interest in their research.

Switching to new technologies also improves operational efficiency. Agencies can create or add existing applications and mobile apps and have the ability to merge datasets to deliver information to citizens in real time and on any device. After investing in updated, modern technologies, the New York City Metropolitan Transportation Authority found its site for the first time capable of providing additional information while withstanding surge traffic during emergency situations.

Tasked with missions of vital importance, agencies should not have to struggle with outdated technology. Open cloud technology bolsters agencies to operate at peak performance with solutions that are secure, scalable, flexible, efficient, and encourage collaboration.

By looking at migration as more than just an expensive technology switch—by understanding it as a fundamental change in what to expect from technology—agencies can transform their digital services. They can embrace the creativity and enhanced capabilities of the future.

Let's talk



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