

Cloud-based web hosting consolidation with an IBM Drupal solution

Cut costs and strengthen enterprise web capabilities with a new cloud-enabled platform as a service (PaaS)



Highlights

- Delivers proven enterprise scalability, with a Drupal OpenPublic platform designed to provide “out-of-the-box” features that meet the needs of government clients
- Provides monthly rated services for both the base platform and incremental platform resources, yielding efficiencies that can dramatically lower operational costs
- Relies on SoftLayer® technology to provide a scalable, dynamic, secure and economically priced cloud environment
- Includes a world-class security team along with a Federal Risk and Authorization Management Program (FedRAMP) and Federal Information Security Management Act (FISMA)-compliant cloud environment to protect agency websites

IBM recognizes the cost and complexity of managing hundreds of websites across large government entities. Each site, managed separately, has high fixed operational costs, including infrastructure, application and integration costs. In addition, each site incurs expenses for services such as disaster recovery and operations and maintenance. This fixed cost structure does not align with the needs of public-facing website architectures that must respond to peaks and valleys in traffic volume.

IBM offers a Drupal PaaS solution for federal agencies seeking a cloud-based content management service (CMS) option that reduces costs during off-peak periods while scaling to meet demands during peak periods. The IBM cloud solution provides exceptional value because of our ability to design, implement, operate, maintain, safeguard and manage a CMS to support and publish a federal agency’s public-facing websites. IBM lowers costs by providing an integrated, elastic, cloud-based open source platform that supports an agency’s CMS needs across all of its public websites.

The IBM cloud solution

The IBM cloud solution provides an enterprise-scalable, secure and dynamic CMS based on Drupal OpenPublic software and hosted in a SoftLayer cloud. The solution includes SoftLayer infrastructure services as well as site migration and consolidation services.

The Drupal OpenPublic platform

IBM’s approach is to establish an agency-wide, enterprise-scale Drupal platform with which agencies can migrate and consolidate multiple sites. This platform is hosted in the SoftLayer cloud and built using the OpenPublic Drupal distribution, which serves as the basis for some of the largest and most prominent government platforms operating today.



OpenPublic is a version of Drupal software preconfigured to meet government website requirements. Configuration options include content types, menus, information architecture, themes, security, accessibility and responsive design. OpenPublic is completely free and open source. It is simply Drupal software that is ready for anyone to use, customize and extend as needed.

Figure 1 illustrates the IBM Drupal CMS platform. Because OpenPublic satisfies the requirements of many agency sites, it reduces development times and costs.

Out of the box, this platform provides the following capabilities:

- Responsive web design for better user engagement with government agency content across devices
- Multilingual support for translating content or for building audience-specific content
- Customizable workflow for content administration to meet publishing standards
- Customizable security compliance with standards such as FISMA Moderate
- Built-in accessibility, with Section 508 and Web Content Accessibility Guidelines (WCAG) 2.0 standards compliance
- Key functionality such as custom promotions, drag-and-drop layout, custom web forms, press releases, blogs and staff directories

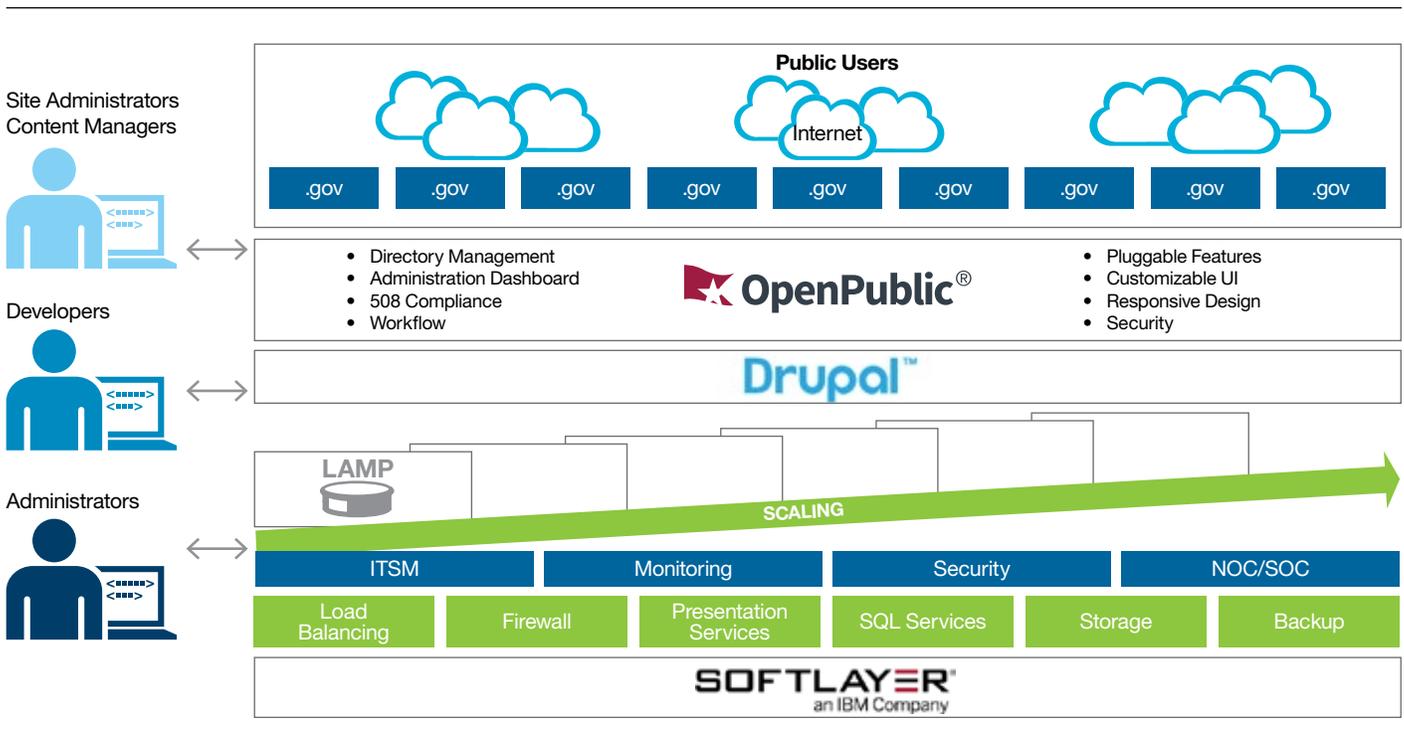


Figure 1: IBM Drupal CMS platform

Figure 2 illustrates the IBM Drupal PaaS architecture.

SoftLayer infrastructure services

IBM provides an elastic, consolidated, tuned, enterprise-scalable infrastructure in our PaaS offering by leveraging the unique features of our economically priced SoftLayer cloud environment for infrastructure services. SoftLayer technology can easily support the end-state architecture requirements of a consolidated federal agency hosted web environment, even with significant growth in web traffic.

IBM site migration and consolidation services

Each site you migrate to the platform keeps its domain, its separate database table structure and its site design. An agency team can continue to administer and update each site, so site administrators retain control while gaining hosting in the low priced, elastic, enterprise-class SoftLayer cloud environment.

IBM offers services to migrate sites from legacy environments to the platform, whether or not the legacy sites are implemented in Drupal. Through resources such as IBM Interactive, IBM Migration Factory and strategic third-party partnerships, IBM has deep experience in achieving the technical process and organizational change management required to successfully migrate federal agency websites onto the Drupal PaaS platform.

Cost savings with robust SLAs

The IBM Drupal PaaS solution includes several advantages that drive savings, including fixed pricing structures, zero-capital services, guaranteed availability and a proven contracting vehicle.

A fixed price structure drives savings

Federal agencies may have high operational costs for disparate website instances due to redundancy in services and infrastructure. The IBM Drupal PaaS offering reduces costs through elasticity and consolidation of enterprise infrastructure and services. IBM offers base platform pricing that encompasses the following capabilities:

- *Cloud compute resources:* offers elastic cloud server infrastructure for both bare metal and virtual servers
- *Cloud storage resources:* charges only for the storage you need
- *Cloud network resources:* monitors and meters the network data volume , charging only for network transport above a per-VM threshold of 1000Gb
- *Development and test environment:* provides a development and test environment for use on demand when needed
- *Number of sites supported:* isolates the incremental cost of maintaining new sites you add to the system
- *Backup services:* charges only for the backup services you need

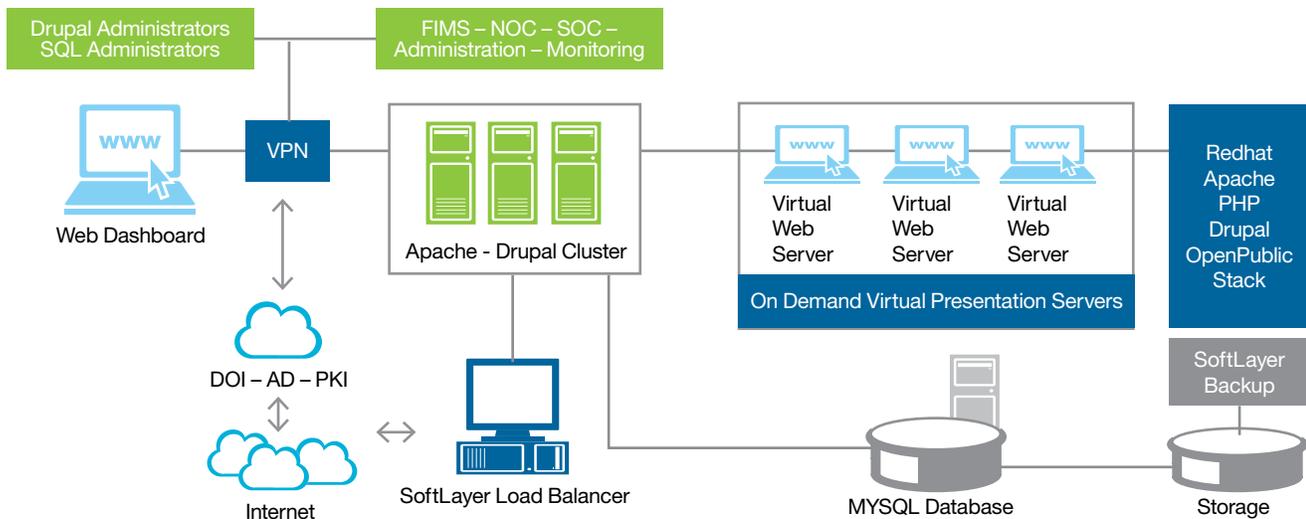


Figure 2: IBM Drupal PaaS architecture

- *Enhanced SLAs*: offers 99.9 percent availability, with an optional monthly rated service to support 99.99 percent availability
- *Infrastructure services*: utilizes a shared service environment and automation to provide high quality services at low cost
- *Security services*: relies on a shared service environment and automation around a single system boundary to provide a high quality Security Operations Center (SOC), as well as consolidate security engineering services, FISMA services and system Authorization and Accreditation (A&A)
- *Drupal platform services*: uses a shared service environment and automation to provide application, database and architecture support of the Drupal OpenPublic platform, to monitor and improve system performance

IBM believes that there is a strong likelihood that resource needs for federal agencies with public-facing web sites will grow over time, increasing resource requirements. IBM offers fixed price increments to scale resources such as compute power, storage, network and backup services so that an agency can manage key website growth drivers, such as:

- Migration of legacy public facing websites to the platform over time
- Increases in traffic to agency web sites over time
- Content data formats, which IBM believes will continue their current trend of increasing in size over time
- Small agency sites, which may have constraints on media and page size, may be able to publish more and bigger media once on the Drupal platform

Zero-capital services

IBM understands that, for many agencies, operational spending commitments and shrinking budgets limit the capital agencies can allocate to procure services, including site migration services. Yet in some cases, migrating websites to the Drupal platform may result in operational savings that exceed the capital required to perform the migration. In these instances, IBM can migrate sites to the Drupal platform, lowering operational expenses without agency capital allocation, and collect fees for its services as a monthly rated service for a fixed period of time. With this arrangement, an agency can cut operating expenses for websites over time without spending capital.

Guaranteed availability

IBM provides a hosted environment that meets stringent federal agency SLAs. For example, IBM has bid our Drupal base platform with 99.9 percent availability (43 minutes per month downtime), and pricing an additional monthly rated service to the base to achieve 99.99 percent availability (4 minutes per month downtime). For either case, our accepted IBM penalty is 100 percent of monthly platform invoice for any calendar month that the platform is unavailable in excess of the associated minutes.

A proven contracting vehicle

In May 2013 the Department of the Interior (DOI) awarded IBM the Foundation Cloud Hosting Services contract (D13PC00024), an Indefinite Delivery Indefinite Quantity (IDIQ) contract whose purpose is to procure cloud services for the federal government. All federal agencies can use this vehicle. It includes relevant technical and management capabilities, as well as past performance, in delivering cloud services. It also includes pre-negotiated terms and conditions, SLAs and a full cloud services price catalog across a broad range of infrastructure configurations. IBM was one of the few winners awarded all seven service lines in the vehicle's scope. We accepted and priced all of the requested SLAs defined in the vehicle and can support all of the technical configurations defined in the vehicle, including operating system (OS), middleware and database options. IBM also has a strategic set of teaming partners on the vehicle. We have bid the Drupal PaaS offering through this vehicle, and can work with federal clients to leverage the experience and lessons learned to streamline the solicitation and bid process.

Why the IBM cloud ecosystem?

Digital transformation is impacting all levels of business and government, creating an individual-empowered society. Consumers, government stakeholders, constituents and federal employees are more connected and empowered, with different ways to engage digitally and collaborate in new ways. As these technologies mature, innovators will re-invent their value proposition for the "everyone-to-everyone" (E2E) society, driving radical innovations in operating models, while also raising concerns around risk, security, compliance and privacy.

New technologies and tools are transforming traditional software development lifecycles. This has a profound impact on how agencies should think about their missions:

- *Unlock innovation:* Cloud computing is enabling changes in how businesses, society and governments operate. Innovators can leverage new ecosystems of application services to speed the creation of solutions for a highly mobile, increasingly interconnected and data intensive world.
- *Scale through open architectures:* Evolution of IBM's open cloud architecture, based on open source software and open standards, is enabling a new approach to delivering capabilities, workloads, and services. This approach results in dramatic improvements in data center operations, faster application development, and highly scalable solutions deployed on-premise and in the cloud.
- *Economics of consumption:* Emergence of a cloud services consumption model, (often called the application programming interface—API—economy) and the availability of composite cloud services based on open standards are creating the opportunity for sophisticated, cost effective solutions for enterprises large and small.
- *Analytics Everywhere:* Cloud makes possible not just new kinds of applications, services and products, but also new types of data. Running analytics on this data—combined with other data across the enterprise—creates new kinds of insight. By performing these analytics through software as a service (SaaS)-based services, an organization can leverage the latest capabilities, without investing to build them. And with self-service analytics applications in the cloud, employees can deepen their insight into stakeholders, constituents and the supply chain—continuously.
- *Engage mobile and social for competitive advantage:* Social applications and mobile devices are transforming customer and partner interactions. Advanced analytics processing applied against the mobile and social interactions provides insights to transform marketing and product innovation, resulting in value for those willing to engage.

For more information

To learn more about Open Public, Drupal, or IBM cloud solutions, please contact your IBM sales representative or IBM business partner, or visit the following websites:

<http://openpublicapp.com>

<https://drupal.org/home>

<http://www.ibm.com/cloud-computing/us/en>

<http://www.ibm.com/cloud-computing/us/en/security.html>

IBM contact information

Joe Morrison

703-629-7794

jmorrison@us.ibm.com

Peter Cipriano

845-518-2172

cipriano@us.ibm.com



© Copyright IBM Corporation 2015

Global Business Services
Route 100
Somers, NY 10589

Produced in the United States of America
June 2015

IBM, the IBM logo, ibm.com and Global Business Services are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. SoftLayer is a trademark of SoftLayer, Inc., an IBM company. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at "Copyright and trademark information" at ibm.com/legal/copytrade.shtml

This document is current as of the initial date of publication and may be changed by IBM at any time. Not all offerings are available in every country in which IBM operates.

THE INFORMATION IN THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT. IBM products are warranted according to the terms and conditions of the agreements under which they are provided.



Please Recycle