

Indiana's WebCMS Migration & Web Site Redesign



Enterprise IT Management Initiatives
State of Indiana, Office of Technology & IN.gov
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B. Executive Summary

The state of Indiana is currently completing its migration of all IN.gov sites to a new design and content management system (CMS). In conjunction with the migration, IN.gov is also implementing new Web analytics and customer service software that will provide more insight to Indiana state employees about their site visitors; and, thereby enhance the user experience on IN.gov.

The redesign and new software implementation is necessary for a number of reasons, but the key purpose is simple: to make it easier for citizens, businesses and others to find what they need on IN.gov more quickly and efficiently. Prior to the new look and feel, more than 50% of IN.gov visitors were finding information and services when state offices were closed. A cleaner designer, revamped navigation and consistent look only further encourages Indiana's citizens, businesses and visitors to be the first in line online.

Indiana also felt it was time to make things *easier* for state government employees. The former cumbersome processes for content changes and website redesigns are eliminated with a CMS that allows for quick, immediate content updates and enforces cascading style sheets. The addition of a robust web analytics tool allows state employees to better analyze the strengths and weaknesses of their site's content; while the introduction to the new frequently asked questions software provides agencies the ability to quickly post meaningful and relevant information on to their homepages.

The redesign is a win-win for both state employees and Indiana's constituents, and as the migration process continues, the state will further realize the benefits brought to both groups.

C. Description of the Business Problem & Solution

Project Description: In order to combat inconsistent designs across Indiana government sites and create an easy-to-use method for content updates, IN.gov began a 1.5 year-long project upgrading all executive branch agency Web sites to a consistent design and a content management system (CMS).

Problem statement – In the late 1990s both public and private sectors began to reach out to customers more and more through the Internet, and the demand on Indiana agencies to keep up with Web design and development often crimped their budgets and overburdened their personnel. Larger agencies, with larger appropriated budgets, had the means to hire dedicated Web and marketing staffs, while smaller agencies were often forced to rely on administrative assistants or program managers to create and maintain their agencies' sites. As the state's Web presence grew, so did the agency sites, many of which became unwieldy, outdated and each with a unique look-and-feel – a detriment to both the agencies and their customers.

In addition, the vendor providing Web design and development support to the agencies, Indiana Interactive, was inundated with thousands of change request tickets each month for remedial changes that often took several days to accomplish due to the archaic approval process via e-mail.

To provide a complete solution to multiple problems that accommodated all parties involved, especially agency customers seemed like the impossible. However, Indiana was in a state of massive transition so the challenge was welcome. Thus, IN.gov began the two-year process to implement a content management system that would provide agencies with a user-friendly interface for site management while converting all executive branch agency sites to a consistent design.

Barriers, Challenges and Opportunities – Although the final migration will end well ahead of schedule, IN.gov did face several obstacles throughout the process.

- **Consensus** – In order for this major initiative to end successfully, IN.gov had to secure the support of all 75+ state entities. This meant early engagement through the RFI process, continued counsel-seeking during the implementation and ultimate authority once the conversion is complete. Forming a CMS selection Committee and inviting all communication, marketing and Web staff to participate, allowed IN.gov to put the control into the agencies' hands. The Committee had ultimate authority over the selection of the CMS.
- **Executive Support** – Even though IN.gov had properly engaged agency staff during the CMS selection process, securing approval from management and executive staff, including the Governor's office, was important to the success of the redesign. Many agencies were eager to implement the CMS; however, few were willing to stray away from their existing designs. To combat this issue, IN.gov formed a Redesign Task Force, comprised of key communication and marketing staff from larger, high profile agencies and led by the governor's communication director. This team evaluated multiple designs before ultimately choosing the existing IN.gov design.
- **Technology** – Introducing any new technology into an existing environment is never easy. CMS proved to be no different. Because of the customization sought by the state, IN.gov

implemented its top-level content on content delivery and application integration software, which caused significant publishing delays. As a result, IN.gov then re-architected the CMS prior to converting individual agency sites. By redirecting publishing to IN.gov's four Apache servers, content is live and viewable almost instantaneously.

Assessment and Decision Process – In order to implement a statewide CMS, IN.gov had to secure unlimited enterprise licensing for the CMS, something many vendors are not used to when dealing with state governments. In addition, IN.gov had to consider costs, so when the field was narrowed down to two choices, ultimately, the vendor with more aggressive pricing had to be weighted more heavily.

These are both obvious reasons when choosing anything in life – availability and pricing. However, the true test for each CMS vendor to move on to the next round of evaluations was ease-of-use. As stated before, many smaller agencies relied on personnel with little to no design/HTML code experience to maintain their sites. Providing a user-friendly interface that could be used and understood by all was the number one consideration during the evaluation process.

Additionally, the solution had to provide a workflow feature that could be leveraged by larger agencies with multiple approval layers. While this functionality is built into most solutions, some agencies' approval levels were so deep a truly robust tool was needed to accommodate those harder-to-serve agencies.

Solution

As previously mentioned, IN.gov worked with a group of about 50 highly technical and/or marketing-savvy agency employees who reviewed responses to Requests for Information from 18 vendors. After choosing a solution that offers enterprise-wide access, allows state employees to make quick, easy updates to their agencies' sites, and can handle the sheer number of Web pages on the portal (350,000) IN.gov began planning the largest Web conversion in Indiana history.

Indiana Interactive (II), IN.gov's Web vendor, dedicated seven resources from their creative services team to create the new design, taxonomy and architecture of IN.gov, while the development team handled the initial installation and ongoing maintenance of all new software. Additionally, Indiana-based Haverstick Consulting began its duties during the evaluation process and eventual procurement of a CMS. Haverstick's technical and project managers assisted IN.gov senior management in securing statewide support of the redesign and CMS implementation. Together, Haverstick and Indiana Interactive helped IN.gov deliver under budget and more than a year ahead of schedule. (Initial estimates put the redesign at three years and \$1.25 million; with only five remaining sites to launch, IN.gov will complete the migration in just 18 months and \$630,000 under budget.)

After receiving responses to the aforementioned Web Site Self-Assessment Survey, IN.gov created an aggressive migration schedule and continued to inform stakeholders via IN.gov Redesign Schedule & Status. In conjunction with the IN.gov Governance Council and the governor's office, IN.gov staff developed design standards and requirements agencies must follow in order to leverage the CMS (and new design, a carrot).

Length of time in operation – IN.gov engaged Indiana agency webmasters in June 2006 to begin reviewing Request for Information (RFI) responses from CMS vendors. After a thorough review process, IN.gov narrowed down the field to two vendors and began aggressive price and service negotiations. The final contract was signed by all parties in December 2006. Build-out of the solution, including customization and extensive administrative training, began in January 2007.

The first CMS-supported site, IN.gov's "Top Level," was launched on April 18, 2007. Since then, an IN.gov staff of seven content migraters and two project managers has fully dedicated all their time to migrating agency sites. As of June 2, 2008, 92 percent have successfully launched in the CMS and new design. The remaining five sites will launch prior to June 30, 2008.

Customization

- **IN.gov Press Release & Events System** – With the implementation of the CMS came a customized system that dynamically drives agency press releases and calendar events to their site, the IN.gov homepage and the IN.gov newsroom and calendar. A user-friendly, CMS-supported interface was rolled out to agencies in April 2007. Since then, IN.gov has added additional features that allow agencies to choose whether the release should appear on the IN.gov homepage and to create multiple similar calendar listings without creating a new event for each.
- **RightNow Frequently Asked Questions** – IN.gov is also leveraging [RightNow](http://www.rightnow.com/) (<http://www.rightnow.com/>) to dynamically drive agency-specific frequently asked questions (FAQ) to each agency's Web site. Truly the most *frequently* asked question rises to the top of the agency's FAQ list, allowing for up-to-the-minute delivery of information that IN.gov's users most desire.
- **WebTrends Analytics** – In May 2007, IN.gov implemented a more robust Web statistics package that allows agencies to gather information about their visitors and help gauge the effectiveness of their redesigned site.
- **ChaCha Search** – IN.gov also leverages [ChaCha](http://www.chacha.com/)'s (<http://www.chacha.com/>) search, which includes human-assisted searches with trained search experts.
- **GovDelivery Subscription Management** – IN.gov drive users to agency Web sites using [GovDelivery](http://govdelivery.com) (<http://govdelivery.com>) a subscription-based notification system that alerts users when a content change occurs on a page of interest. Indiana is the first state to implement such a service site-wide; thus the creation of subscriptions.IN.gov (<http://subscriptions.IN.gov>), where users manage all agency subscription items in one convenient location.

Communication

- **Web Site Self-Assessment Survey** – In order to begin the scheduling process for the CMS migration and redesign, IN.gov drafted an agency self-assessment survey that required agencies to take a look at the current state of their sites from all angles. The survey included questions about target audiences, whether they felt their current site was adequate, if they were interested in leveraging CMS and the other tools included in the CMS package (see Customization) and the number of editors currently maintaining their sites. This survey proved to be a valuable tool when scheduling the order of agency migrations well the migration process duration. Of the 75 agencies surveyed, 75 percent responded within the deadline and were immediately scheduled for the conversion based on their answers.

- **Webmasters.IN.gov** – In 2006, IN.gov introduced <http://webmasters.IN.gov>, a one-stop location for all things IN.gov, including application issues, billing and processing, Web/e-mail address requests and content requests. Additionally, webmasters.IN.gov also functions as webmasters’ and public information officers’ (PIOs) resource for the current status of any application or service supported by IN.gov. A simple stoplight image indicates to users if there is an issue and an accompanying time-stamped message provides details about which application/agencies are affected as well as expected resolution time, if available. IN.gov uses the tool, coupled with GovDelivery alerts, to inform customers of CMS and other IN.gov service updates, outages and improvements.
- **IN.gov Update** – As the process of choosing a CMS moved forward, it was clear that IN.gov would need a means of regular communication to its partner agencies. In November 2006, IN.gov revamped and released its e-newsletter, the IN.gov Update. The update provides key information about the status of the migration, new service offerings, planned upgrades, etc. The newsletter, combined with the status information on webmasters.IN.gov, reaches executive level employees as well as those responsible for agency Web site content.

D. Significance: How did the project improve the operation of government?

State Government

The IN.gov redesign makes it easier for users in state government to update content within their agencies. On average, six to seven dedicated IN.gov resources fielded 1,200 content changes monthly through a cumbersome process. First agencies submitted a ticket; IN.gov staff then clarified any miscommunication. Once the change was made, IN.gov staff put the changes in test and sent it on to the agency for review. After additional comments, more changes were made, if necessary, and then it was returned to the agency for approval. The majority of the change process was spent on communication and coordination of multiple parties; the CMS completely eliminates the need for agencies to submit changes to a centralized authority.

Businesses & Citizens

Citizens and businesses using IN.gov now experience a Web site that truly caters to the user.

IN.gov integrates the best practices of public *and* private sector:

- **Customer-focused:** The site is more user-friendly, and all content is now presented in a clear, accessible format so the general public can easily interact with Indiana state government.
- **Consistent:** Navigation, search, online services and other features are in the same location on each page. Users no longer have to re-learn how each agency Web site or IN.gov page works. (Where Indiana and other states previously “accomplished” this through “sliver” headers, Indiana will implement full page consistency for all agencies by 6/30/2008.)
- **No Wrong Door:** Users can more easily find what they are looking for with IN.gov’s powerful search engine, streamlined subject matter navigation, targeted “Information For” sections and graphic “billboards” highlighting major initiatives.
- **Great Design:** The new IN.gov sports a modern design with central “billboard” graphics for an updated look at available services and major initiatives that are currently underway. The billboards represent the best practices and design elements from sites in other industries because citizens and businesses interact with a variety of Web sites, thus Indiana created a design that enhances what constituents are experiencing elsewhere.
- **Self-Service:** Users can literally “help themselves” using IN.gov’s dynamically-driven FAQs (which boast a 99.5 percent self-service rate with nearly 900,000 FAQs viewed since

4/18/2007). Additionally, e-subscription options throughout the site allows users to keep up-to-date on all IN.gov has to offer with customized frequency and content.

- **Accessibility:** IN.gov has long been committed to accessible Web design, and the implementation of the CMS across all state sites ensures that pages are developed in accord with Section 508 and W3C guidelines. Additionally, the new design is architected to separate content from design, which allows for screen readers to more easily consume data and the delivery of content across different devices. IN.gov also offers visually impaired users and foreign language speakers the opportunity to download Browsealoud (<http://browsealoud.com>), a screen reading software, free of charge. A link to Browsealoud information and downloads is available in the footer of every IN.gov redesigned site.

Policy, strategy & goal alignment

The implementation of a CMS is not only part of Indiana's Strategic IT plan, which plans for the continued use of enterprise architecture and shared services, it also answers Governor Mitch Daniels' call to state agencies to create a more efficient, cost-effective state government.

E. Benefit of the Project

Financial Return on Investment

IN.gov also introduced several additional services it now offers to its partner agencies free-of-charge (and at substantial savings to the state). GovDelivery, RightNow, Browsealoud and WebTrends are all enterprise solutions purchased by IN.gov and offered to each state agency at no cost. Had the 75 Indiana agencies been required to procure these solutions separately, the cost would have been roughly \$11,062,500 or \$147,500. This calculation is based on the cost to procure, implement and support for one year a CMS (~\$17,500), GovDelivery (~\$40,000), RightNow (~\$75,000), Browsealoud (\$5,000) and WebTrends (~\$10,000), which includes solution list price; licensing fees; servers, databases and other physical equipment; and a low estimate of human capital. Through aggressive contract negotiations, IN.gov paid first year costs totaling \$452,533 and enjoyed a savings of \$133,930 for all five enterprise-wide solutions.

But, to demonstrate an ROI with a "bottom line" improvement, with the migration of each agency's Web site to the new IN.gov, IN.gov will measure the typical time it took to make changes against the time it takes to make the change through the CMS. IN.gov conservatively estimates that the average change, including approval, has been reduced from three days to 4 hours (assuming multiple levels of approval). With an average state salary of \$50,000 computed against the average number of changes per quarter by agency, the ROI analysis is straightforward.

Non-Financial Return on Investment

The first goal of the IN.gov redesign is to provide state government information in a customer-centric manner. Though it is intuitive that a more consistent Web site with a terrific design will lead to users more effectively navigate, IN.gov has plans to submit test cases of the new design to focus groups in the fourth quarter of 2008 to evaluate the effectiveness of the new design. (The development of the test cases will focus on IN.gov's most popular areas and include an attribution of cost to the act that is tested to determine ROI.)