



Simplified UX with a Modern Vibe

Enterprise IT Management Initiatives

State of Illinois
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Executive Summary

The Illinois Department of Innovation and Technology (DoIT) maintains an enterprise of nearly 200 individual websites for the State of Illinois that historically were created, maintained, and updated within the federated responsibilities of the state government agencies, boards, and commissions which DoIT supports. These websites received over 2.4 billion hits, 432 million pages viewed, and consumed 74TB of bandwidth per year. While meeting the diversified needs and unique tastes of each of these entities, this model did not easily allow for standardization of processes, conformity to best practices and accessibility standards, or the ability to brand the State web presence for the residents of Illinois.

With the onset of the COVID restrictions of 2020-2021, DoIT recognized that this model of envisioning and operating our websites was not sufficient to meet the changing needs of our residents and the businesses within Illinois. The State of Illinois experienced the paradigm shift to a new model of customer service and began to expand and leverage this type of resident engagement to far greater degrees. DoIT embraced this culture-changing trend and moved to address the challenge head-on, launching a statewide initiative to technologically advance and modernize the State's website portfolio and its associated support structure.

DoIT made the decision to revolutionize the State of Illinois web presence by converting Illinois websites to the Adobe Experience Manager (AEM) native cloud service, run in Amazon Web Services (FedRamp). AEM has standardized numerous functional components and engaged a retooling of website administrator skill sets through a comprehensive training program and documentation branded as the "AEM University."

Idea

DoIT launched the AEM Web Modernization project in the second quarter of 2021 and the project team was charged with re-platforming all state websites on the AEM platform, modernizing, and realigning all public web assets according to industry standards and content management best practices, as well as federating website content management and administration for the individual state agencies. The desired result was a platform with centralized standards governing the State of Illinois web presence. This approach would allow the State to replace its outdated web technology stack with a solid SaaS environment that DoIT could improve upon and advance with a common and recognizable brand.

DoIT organized the project to maintain clear objectives and create platform standards for website content that would improve the experience of visitors accessing information. This model allowed DoIT to reuse information and components throughout the website architecture and across all sites, modernizing web content management at the State.

The project's scope encompassed the following objectives:

- To standardize the website technology stack to reduce diverse maintenance requirements, minimize overall cost, and establish enhanced global component functionality to deliver a unified vision and set of functional elements for residents.
- To implement a platform that would enable site administrators to maintain their website presence quickly and efficiently for a varied audience. The platform can accommodate users regardless of language choice, physical disability or viewing platform, using modern tools, design philosophies, automated testing and additional systems where needed.

- To build a foundation for the customer service catalog and other common state services. The presentation model makes websites easier for visitors to use and provides them with information that is more relevant to their needs.
- To construct a model for agency skill set retooling to allow agencies to function individually, yet within the scope of the platform’s standardized global components and practices. DoIT understood the opportunity for generational change in the management of the State’s web platform. It was an opportunity to revitalize the State’s engagement with residents and set a path for strategic growth.

DoIT’s deliverable goals were:

- Standardizing on a common web platform
- Converting and upgrading over 100 websites
- Creating globalized web components
- Implementing centralized governance
- Decentralizing web site administration
- Retooling web administration skill sets
- Providing a “university” of technical and development resource materials

Why does it matter?

Better connection with residents is a hallmark of compassionate public service. Well-planned and well-executed information systems make that happen through meticulous attention to security, accessibility, common functionality, and ease of use.

Implementation

This rollout focused on establishing a new Adobe AEM enterprise platform to support state websites over time, with a standard structure and components, consistent visual elements, and the ability of agencies to control content.

An implementation roadmap was created to divide the sites of varying sizes and complexities into seven waves. Each wave was allocated 12 weeks for site migration, user training, support, and any additional development. As issues arose requiring modification to the schedule, timelines were extended.

Each wave included the following components:

- Snapshot taken of website
- Straight conversion executed
- Adoption of common global components developed in pilot
- Upgrades to functionality and content
- Legacy website content clean-up completed
- Agency “testing teams” verified conversion of content (side benefit was practice with new tools)

DoIT structured the project management component with collaboration between agency stakeholders, Adobe implementation partners, and the DoIT web development team. At project peak, six project managers coordinated the work of nearly 100 application developers led by a six-person web content team of DoIT technical and web content management experts and various website business owners in the agencies.

The initial high-traffic sites identified for migration were: www.illinois.gov, coronavirus.illinois.gov, ides.illinois.gov and dph.illinois.gov. These sites helped us identify the required components and identify

and analyze any operational contingencies related to high-traffic sites. This analysis provided benchmarks as we added sites with varying levels of complexity and page density.

A representative website was implemented in Adobe AEM for each of our most visited websites with a focus on building the most used components. This approach allowed the project development team time to learn the platform, create any global components and customizations, while building a backlog of items to be addressed in future builds and phases.

The DoIT Web Modernization project team recognized the importance of a broad knowledge transfer to hundreds of stakeholders, web administrators, agency experts and future resources across the enterprise. DoIT created a comprehensive online [WCM Authoring Guide](#) featuring the AEM University to be the central educational resource. The WCM Authoring Guide and AEM University provide a storehouse of platform specific information, trainings, documents, videos, etc. for reference by all web administrators and authors across the enterprise.

Contents include:

- Getting Started
- Popular Trainings & Recent News Articles
- Best Practices
- Guides & Instructions
- Style Guides
- Accessibility Guidelines
- Naming Conventions
- Guidance on Content Creation
- Information on Templates, Components, Page Actions, Forms, and Tags
- Videos & Tutorials

The WCM Authoring Guide has had more than 25,000 site visits by authoring users in the first four months of 2023. DoIT provided rounds of platform administrator training by deployment wave using the training assets compiled for the WCM Authoring Guide. DoIT held a daily one-hour training session with all web authors and agency platform administrators in the weeks leading up to each go-live. Upon go-live, a period of “hyper-care” was established to field questions during a one-hour support call for agency teams. If no specific production issues were discussed, the time was used for training on advanced web authoring topics.

The seven waves of implementation executed according to plan without major delays or alterations to the schedule. The dedicated and collaborative efforts of hundreds of stakeholders in over 40 agencies, boards, and commissions have positioned DoIT to provide richer content and more user-friendly delivery of service information to Illinois residents. DoIT adjusted the website re-platforming of a few large agencies to later waves due to the complexity of their web site construction and legacy content. Overall, the project team was able to accommodate special interests and complete the project within budget and on time.

Impact

In measuring success for this project, we considered the per property Accessibility, Quality, Search Engine Optimization (SEO), and User Experience Testing scores both pre and post migration. The average improvement for accessibility was +7.4%, Quality was +15.2%, SEO was +1.7%, and User Experience was +6.6%. The DoIT web development team was also able to accommodate special interests and complete the project on time and within budget. The conversion to the Adobe AEM platform has provided unified analytics reporting as a “single pane of glass” for all websites. DoIT’s user satisfaction rating for the migration itself was a 4.04/5.00. And our SiteImprove Digital Certainty Index (DCI) that measures quality and potential impact of the state’s digital presence – increased to nearly 90%.

Through the Website Modernization project, DoIT accomplished:

- Consistency of design, platform, and toolset for building unified and consistent website properties for all State of Illinois agencies while maintaining the individuality of agency branding.
- Creation of more user-friendly authoring environment and tooling set to enable “business users” to maintain content without relying on IT staff who are not familiar with content.
- Accessibility remained at the forefront through monthly reporting of compliance and enforcement of requirements during publishing efforts.
- Adoption of a “mobile-first” philosophy. Metrics revealed that over half the time, state websites are accessed from a mobile device.
- Enculturation of modern design principles and automation as defaults in authoring.
- Increased transparency of information, decreasing Freedom of Information Act and other public requests.
- Significant increase in scalability and security of the platform to meet the increasing demand from residents. Positioning Illinois government agencies on a long-term sustainable platform will improve website content delivery and service.

The Web Modernization project enabled DoIT to build upon the platform in the following ways:

- Revamp Agency UX with emphasis on user journey and customer experience.
- Provide more dynamic data driven by backend systems.
- Support common data definitions across website properties so that rollup of items on Illinois.gov can be made possible for events, forms, and FAQs.
- Replace PDF forms with adaptive forms for maximum browser and mobile compatibility.
- Assign transparent user personas and implement frontpage audience-targeted promotions.
- Create a single source of data for chatbots and FAQs to reduce maintenance efforts.

In the future, DoIT plans to re-platform the sites and continue with enhancements. Further down the road, DoIT will realign information delivery methods to be more efficient and ultimately expand to additional offices, including constitutional offices not typically served by DoIT to create a “One Illinois”.