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IQ Solutions Improves Lives by Disseminating Public Health Information

MarkLogic Partner Modernizes and Streamlines U.S. Government Agency with "Create Once, Publish Anywhere" Model

iQ solutions
knowledge improves lives

Summary

Customer
IQ Solutions

Industry
Healthcare

Challenge
Dissemination of content for myriad sources and volumes of information

Customer Use Case
Data repository for Substance Abuse and Mental Health Services Administration (SAMHSA)

Benefits
Flexible file support, data accessibility, streamlined content development process

Company Overview

"Knowledge improves lives." It may seem simple, but that's what IQ Solutions is all about. Powered by a staff of 300, this full-service public-health communications and information firm delivers specialized expertise and content to healthcare organizations around the world.

By combining the effective use of health communications with health information technology, IQ Solutions is focused on improving the quality of life for the people they serve. Currently, they operate nine information centers within the United States Department of Health and Human Services, including the Substance Abuse and Mental Health Services Administration. SAMHSA's mission is to reduce the impact of substance abuse and mental illness on America's communities.

Since 2006, IQ Solutions has provided ongoing support and solutions for SAMHSA. In addition to operating a 24/7 contact center and treatment referral line, they also maintain a vast information warehouse that includes print materials, websites, social network content, and more. The company designed, deployed, and now manages SAMHSA's eCommerce platform, and also developed a Knowledge Management Platform for the information centers.

Adam Lee, director of information systems at IQ Solutions, puts the relationship in perspective: "Over a five-year period, there were over 125 million interactions between us and SAMHSA stakeholders, from publication orders to phone calls to emails." That demand for information needs a robust technical infrastructure.

Challenge

With such a large volume of information, generated by various sources and in disparate formats, dissemination of content is a big challenge for SAMHSA. Adding to the complexity, there are different approval processes for different content channels.

The company must also adapt to new technologies. "Americans are getting health information in different ways now," says Lee. "In addition to the website, we need to go find them on their mobile phones, on their tablets, and through other partners where they might be seeking health information, so we can get SAMHSA's content to the people who will benefit."

The challenge comes from the top down, too. In addition to getting content to the stakeholders who need it, SAMHSA receives mandates from the White House and other government agencies to use shared platforms, focus on digital formats, and expand their reach when it comes to content dissemination.

Cost savings was another key consideration. Tight budgets were strained by the costs associated with content development and delivery. IQ Solutions sought a more efficient solution that would reduce expenses.

To meet their goals of modernizing and streamlining their business while expanding SAMHSA's reach, IQ Solutions decided to put together a new content repository. The first step was defining how different types of content—from a single bookmark to a 300-page manual—could be stored and shared in the same structure. "We wanted a model of 'create once, publish everywhere,'" notes Lee. "At the same time, we didn't want to increase costs—or the burden on SAMHSA's staff."

Solution

The company spent three months—half the length of the overall project—evaluating potential solutions to meet their long list of requirements. As Lee points out, a lot has changed in the arena of content storage. "The government is producing so much information, and they're looking for different ways to store it, search for it, and make sense of it all. It goes beyond databases—it's about information centers, where you can easily organize and access what you need."

At first, Microsoft SharePoint seemed to be a strong contender, but as they drilled deeper into SAMHSA's specific requirements for querying and data access, IQ Solutions quickly realized that the software lacked the flexibility and key features they needed. "The evaluation was time well spent," says Atul Ganatra, enterprise systems architect at IQ Solutions. "If we hadn't made the right choice of going to MarkLogic, we probably would have lost out on a lot of opportunities and been painted into a corner pretty quickly."

Content-Friendly XML

As Lee points out, at the heart of the MarkLogic implementation is a shifting of resources away from developing products and toward developing content. Early on, IQ Solutions decided to convert all of its information into XML format—the language not only allows for easy separation of content, but can also restructure that content in many different ways. When it came to full XML support, MarkLogic was the clear leader. "The platform has so many important capabilities," notes Ganatra, "but MarkLogic is a pure, native XML database, and that's the core capability we needed."

The efficient storage of XML documents far exceeded the team's expectations. "Without any modifications or optimizations, all of our thousands of documents were indexed and served up tremendously fast," Ganatra notes. "Right out of the box, MarkLogic's capabilities blew us away."

A Centralized Solution

Another primary goal was to store all content on a single, centralized platform for easy cross-channel distribution on virtually any device. The XML data for all publications in the Knowledge Management Platform—over 7,000 total—has been loaded into the MarkLogic database. From there, the team can apply style sheets and easily convert the files into HTML or PDF format for easy retrieval. Out of all the platforms IQ Solutions evaluated, only MarkLogic offered enterprise-level search capabilities while preserving the XML structure. "Thanks to the fundamental capability of the MarkLogic database, we can offer many different delivery options," Ganatra notes. "The possibilities are endless."

With so many different contractors developing content, the data in the centralized XML files is easier to find and revise—in other words, far more accessible. Not only is this convenient, it also ensures compliance with Section 508 of the U.S. code, which requires that federal agencies and their contractors provide a minimal level of accessibility. "The bottom line is, we're introducing efficiencies that support SAMHSA's mission, which is delivering different types of content to those who need behavioral health information."

Looking Ahead

This new content repository has set the stage for even more improvements. IQ Solutions anticipates adding more transformation processes and file formats, creating even more versatility in disseminating information. They also plan to expand the availability of style sheets for PDFs and HTML documents. "Different programs have different visual themes and presentation styles—now we can develop custom style sheets specific to those programs," Lee says. The team will work closely with SAMHSA staff to ensure a full understanding of the platform's capabilities—specifically, how it can save them time and effort during the content development process.

IQ Solutions looks forward to extending SAMHSA's success to its other eight information centers, which all present similar challenges. These projects will also rely on MarkLogic to seamlessly accommodate and transform the XML data. Lee sums up the positive impact of the new MarkLogic platform. "Creating and storing content once—for dissemination everywhere—allows SAMHSA to reach new audiences and new partners, without a lot of additional effort. Out of all the different tool sets and technologies we explored, only MarkLogic is capable of handling all of our requirements and solving our challenges."

For this quality-focused healthcare information and technology company, the MarkLogic provided flexible file support, easier data searching and accessibility, and a streamlined, centralized repository—all essential to project wellness.

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