Marmot Utilizes Sierra APIs to Speed and Streamline Discovery

Marmot Library Network, with 24 member libraries, hosts Innovative's Sierra Library Services Platform (LSP) for its members, maintains a union catalog of 1.9 million titles, and provides related services for public, academic, and school libraries in Colorado. With a diverse constituency of professors and college students, teachers and grade school students, and public library staff and patrons, Marmot requires the Sierra LSP and its open source discovery solution VuFind to work together seamlessly to match a variety of user needs.

Challenge

What happens when your catalog discovery layer isn't easily synchronized with information from your LSP and time-consuming work-arounds by the technical staff are needed to keep the two systems aligned?

That was the challenge facing Marmot Executive Director Jimmy Thomas and Senior Developer Mark Noble in 2013 as they looked for ways to streamline the record updating process and ensure that library users and staff had up-to-date availability information for Marmot's 1.9 million titles.

"From the user point of view, the functionality of our VuFind discovery layer was complete, thanks to the great behind the scenes work by Marmot staff," says Jimmy. "But we knew from a technical point of view that we could improve response time for users and streamline the system so that it was more efficient and reliable, which is where the Sierra APIs came in."

Mark had been doing an extraordinary job keeping Sierra and VuFind in sync, but the solution wasn't as reliable or sustainable as the Marmot team wanted it to be. Exporting nearly two million records from Sierra using the Scheduler tool was a time-consuming process that meant availability facets for search results could only be loaded every four hours. Displaying availability information also required "screen scraping" or parsing HTML for each title that was displayed to patrons, an inefficient process that caused slow page load times.

"The Sierra Bibliographic and Item APIs were designed to enable library systems like Marmot to move data efficiently from Sierra to their discovery layer to better serve their users."

—Steve Schoen
API Product Manager
Innovative

Solution

"We'd been hearing about the new APIs since we installed Sierra in September of 2013, and we were anxious to see what they could do in conjunction with Sierra's open SQL database," says Mark. By nature, APIs are designed to allow systems to talk to each other and to share data in a seamless manner, without long delays or hassle.

iii innovative

"The Sierra Bibliographic and Item APIs were designed to enable library systems like Marmot to move data efficiently from Sierra to their discovery layer to better serve their users," says Steve Schoen, Innovative's API Product Manager. "We were very pleased to have Marmot sign on as an early adopter and appreciated Mark's input into API development."

The solution Mark developed for Marmot starts with a twice-daily full export of bibliographic and item records from Sierra that accounts for all adds, deletes, and updates. This is obviously not frequent enough when it comes to providing real-time availability information.

Marmot then supplements the full downloads with Sierra's direct SQL access to load availability and location information every fifteen minutes, eliminating the need for time-consuming parsing of HTML. To complete the picture, Marmot uses the APIs to determine which items have changed every fifteen minutes so the system can update those titles specifically without touching anything that hasn't been changed.

"It was really a straightforward process to implement the APIs, which were very well documented," says Mark. "They all worked as advertised the first time so we didn't have to have an iterative process with the Innovative development team."

Mark was pleased to find that the Sierra APIs are based on the popular REST protocol, very much in line with industry standards. "Actually, it's about the easiest set of APIs that I've integrated with," he adds. "The overall structure is very much the same as other vendors, so once you've implemented one, it's not hard to understand how things are set up technically."

RESULTS

By utilizing Sierra APIs, Marmot now powers its discovery layer directly with LSP data. Sierra APIs and open database provide libraries the flexibility to implement the most appropriate systems for their staff and patrons by supporting open data access and exchange. These techniques mean the data in the Availability facet is close to real-time, which is a huge achievement for a discovery layer and an improvement felt by staff and patrons alike.

"It's great to see what Marmot has been able to accomplish with the Sierra APIs so far, but we know we're just getting started in terms of unlocking the potential of Sierra's open data structure," says Steve. "We've received great input from Marmot and other customers about their priorities for the next set of APIs, which will be incorporated into future rollouts."

sierra