the systems librarian

An Update on Open Source ILS

IN THE LAST FEW YEARS, SOME VIABLE OPEN SOURCE INTEGRATED LIBRARY SYSTEMS HAVE EMERGED TO CHALLENGE THE COMMERCIAL OFFERINGS.

by MARSHALL BREEDING

It was about 4 years ago that I last devoted a column to open source alternatives for integrated library systems (October 2002 in *Information Today*). A lot has happened in this arena in the last year, so it's time once again.

Open Source Defined

Open source software contrasts with proprietary, closed software. Most commercial applications have been created by companies that consider the underlying source code to the software as their proprietary information, which they guard closely. The software is distributed only in its binary form. Those who license the application receive working copies of the software itself but do not get access to the program source code. Only people in the organization that developed the software can make corrections, enhancements, and changes. The standard business model involves paying a license fee upfront to acquire the software, plus paying annual maintenance fees for updates and support.

Open source follows a much different model. In most cases, no license fees apply and users have access to the source code so that they can make any changes or corrections that they have the technical proficiency to do. Most open source applications are released under a license that stipulates the terms and restrictions that apply, such as the obligation to release any modifications to the public. While many think of open source as "free software," it's important to remember all of the other cost components involved with a software application, such as personnel costs for sysadmin, applications maintenance, facilities management, etc. As with anything else, it has its advantages and disadvantages (see sidebar).

While it is common to use open source software without cost and without support, in many cases there are options to obtain assistance. Many companies provide support and services for open source applications, such as installation, customization, configuration, training, and general hand-holding. Using free software does not necessarily mean going without commercial support.

Open source components have gained wide acceptance: The Apache Web server, Linux operating system, MySQL database engine, and the Perl and PHP programming languages are but a few of the open source components that have become standard building blocks of many organizations' technical infrastructure.

While open source software has flourished for a number of years for infrastructure-level components, it has not gained a stronghold in the library automation arena. The overwhelming majority of library automaton software is offered through commercial companies as propriety, closed-source software. Though that continues to be true, in the last few years some viable open source integrated library systems have emerged to challenge the commercial offerings.

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Georgia PINES' Evergreen

One project that bolstered the prospects of the open source ILS involves the transition of the PINES consortium in Georgia from a commercial system, SirsiDynix Unicorn, to a system named Evergreen that the members developed internally. Now they have released it as open source for other libraries to use. PINES is a consortium of 252 public libraries in the state, managed by the Georgia Public Library Service (GPLS). The consortium runs a single automation environment shared by all participating libraries, allowing users associated with any of the libraries to borrow materials throughout the entire system. Combined holdings total 7.7 million items.

The PINES project was launched in 1999, with Sirsi Corp. (now SirsiDynix) winning the contract to provide a shared automation system for the consortium. The initial phase automated 98 libraries, with 111 added in a subsequent phase. Additional libraries have joined over the last few years to bring the total to its current 252. PINES was one of Sirsi's largest clients and represented more than $1 million in software and services for the company.

The Unicorn implementation for PINES did not go well, and by June 2004 the GPLS, with full support of state librarian Lamar Veatch, charted a path to develop its own system, which was later named Evergreen. Following 2 years of intensive development, the entire PINES consortium migrated from Unicorn to Evergreen on Sept. 5, 2006.

In recent news, the University of Windsor has agreed to partner with GPLS toward the development of an acquisitions module for Evergreen.

Koha Emerges and Grows

Originally developed in New Zealand by a consulting firm named Katipo Communications, Koha ranks as the first full-featured open source ILS. The software was initially developed for the Horowhenua Library Trust (HLT) consortium of four libraries. These libraries have been using Koha for more than 6 years. Katipo originally developed the software specifically for HLT, but released it as open source so that it could be freely used by others. Koha was written in Perl, uses the Apache Web server and the MySQL database engine, and operates on Linux—a popular suite of open source components.

The Nelsonville Public Library in Athens County, Ohio, earned the distinction for being the first major public library in the United States to implement an open source ILS when it launched Koha in late 2002. The library had been using Spydus, a commercial ILS offered by the U.K. company Civica, which was seeing a diminishing presence in the U.S. The Nelsonville library system consists of a main facility and six branches with a collection totaling more than 250,000 items, demonstrating the capability of the software to handle a typical, medium-sized public library. Recently, the nine-library Crawford Federated Library System in Pennsylvania migrated to Koha.

Building on the success of Koha at Nelsonville, the library's systems administrator launched a company called LibLime in March 2005 to provide commercial support to other libraries interested in using an open source ILS. In addition to helping librarians implement Koha, the company is involved with developing enhancements to the system.

One of the major enhancements of Koha has resulted from integrating into the system the open source Zebra search-and-retrieval engine. Zebra was developed by Index Data, another firm specializing in open source library applications. The Zebra search engine greatly enhances the performance of Koha, improves the sophistication of its searching capabilities, and allows it to handle much larger collections. This new version of the software goes by the name Koha ZOOM and was first implemented in the Nelsonville Public Library.

The LearningAccess ILS

Another organization involved in library automation based on open source software is Learning Access Institute. This Seattle-based nonprofit organization develops the LearningAccess ILS. This company specializes in providing library automation options to rural and underserved communities, especially rural public, school, and Native American libraries. To meet this need, the organization focuses on delivering

The Traditional Approach to Open Source Applications

Advantages

- Avoiding most software license fees and annual maintenance payments to vendor for the software itself
- Freedom to customize and modify the application to make it fit your own needs

*Disadvantages**

- Increased costs for local technical expertise
- No guaranteed support or upgrades

** Commercial support options for open source software reshape these basic principles.*

To Learn More About Open Source ILS Packages

Georgia PINES catalog
www.gapines.org

Evergreen ILS
www.open-ils.org

Katipo Communications, Ltd.
www.katipo.co.nz

Koha
www.koha.org

LibLime
http://liblime.com

Index Data
www.indexdata.com

LearningAccess ILS
www.learningaccess.org

good support options with the software. Learning Access has even developed a complete turnkey version of the system, named aVista, that runs on the Apple MAC Mini. About 15 libraries currently use the LearningAccess ILS.

Ready for Rapid Adoption?

As I look back at my 2002 column on open source ILS, I see that I mentioned both Koha and the LearningAccess ILS. Over this 4-year time period I have seen Koha usage increase from a single library system to two or more library systems plus a few individual public libraries and a large number of other small ones. The LearningAccess ILS is used in 15 libraries. Evergreen currently represents the largest group of libraries sharing a single open source ILS implementation.

Over the same time period, well over 40,000 libraries have purchased a commercial ILS. So, relative to the entire library automation arena, those using an open source ILS still represent a minuscule portion of the whole.

That said, conditions are ripe for a more rapid adoption of open source ILS than we have seen in the past. There are at least three viable products and options available for commercial support. The concept of open source software has become very popular in our field; many librarians are discouraged with the commercial ILS vendors. I frequently hear complaints about the low level of innovation and the high cost of automation software. The success of a large consortium and a few mid-size libraries with open source ILS systems provides a strong dose of reassurance to others that this approach can work. These events have primed the pump; we'll have to wait and see how strong the stream of adoption flows over the next few years.

"USING FREE SOFTWARE DOES NOT NECESSARILY MEAN GOING WITHOUT COMMERCIAL SUPPORT."

So while I still don't expect open source to become the dominant model for library automation software anytime in the near future, I do expect the numbers to continue to increase much faster than we've seen in the past. It will be very interesting to read the scorecard 4 years from now to see how well open source alternatives compete with the commercial systems. ■

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