The New Face of ERP

Enterprise applications come out of the back office to manage everything from business operations to student lifecycle relations.

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WHEN IT COMES TO ENTERPRISE APPLICATIONS, ONE SIZE DOES NOT FIT ALL. Just ask John Southard, chief technology officer for New York Law School.

Southard's team manages a "quasi best-of-breed" mix of enterprise resource planning (ERP) and constituent (or customer) relationship management (CRM) systems across the university. The solution includes SunGard's SCT Banner for ERP; Admit-M software from the Law School Admission Council; and Blackbaud's Raiser's Edge software for alumni development.

Never one to rest on its laurels, NYLS also is investigating end-to-end hosted SunGard solutions from Drexel University (Pa.), which offers such services to other colleges, according to Southard.

NYLS isn't alone. Highered institutions across the globe are rethinking their ERP and CRM investments with a new goal in mind: total financial management coupled with total student relationship management from recruitment and enrollment, through retention, graduation, and even alumni giving.

The journey to this potential nirvana won't be easy. Like NYLS, most colleges and universities have a mix of ERP, CRM, and financial systems running across mainframes, Unix, Windows NT, and more recent architectures. Ripping and replacing these multimillion-dollar investments that took decades to design isn't an option. "On the one hand, universities want to simplify their back-end systems," says Ed Golod, president of Revenue Accelerators, a consulting firm in New York. "But on the other, they don't want to do anything that puts their current operations at risk." The best chance for real change frequently occurs when CIOs at institutions of highered reach out to their CFOs. "You can save money or drive revenue higher with a new enterprise system," Golod adds. "And that's the discussion CIOs have to have with their CFOs."

Ultimately, IHEs can gain economies of scale by standardizing on fewer, more powerful ERP and CRM systems, Golod asserts. "It's like buying in bulk from a wholesale warehouse, only you're not saving a few dollars here and there. You're talking about annual savings that can exceed $100,000 through reduced licensing fees and better automation."

With hosted applications, some IHEs face cultural pushback from trustees and privacy advocates who worry that remotely hosted data can be lost or stolen.

Skeptical? Consider the situation at the University of Houston. A new hosted CRM system from RightNow Technologies saves roughly $1 million annually, confirms a spokeswoman. Instead of a huge up-front licensing fee, RightNow gets a monthly subscription fee for the hosted service. The system automates communications between students and the university, reducing labor expenses related to retention, enrollment, and other key activities.

Comparatively speaking, RightNow is a relatively small player in the crowded enterprise software market. At first glance, the ERP and CRM industries are rapidly consolidating around two major forces: Oracle and SAP AG, the two largest independent application providers. A closer look reveals dozens of options.

Not sure where to start? First, keep four key enterprise software categories in mind: the traditional approach, hosted applications, open-source industry applications, and homegrown open-source applications. Here's a closer look at the pros and cons of each path.

THE TRADITIONAL APPROACH

For many IHEs, traditional server-based applications provide scalable, reliable, predictable environments. But a little change can do a lot of good. Applications from a decade ago required expensive RISC (reduced-instruction set computing) processors and Unix software. In stark contrast, today's applications can run on lower-cost servers designed on processors from Intel and Advanced Micro Devices.

The net result? Server hardware running Windows or Linux delivers at least 10 times the power at one-tenth the price of RISC hardware running Unix from a decade ago, estimates Golod.

Still, the traditional applications market is undergoing some monumental changes. SAP focuses mostly on writing its own applications, but Oracle has been busy acquiring third-party applications for the past five years or so. As Oracle swallowed PeopleSoft, Siebel Systems, and the JD Edwards software lines (to name a few), some IHEs feared Oracle would suffer from a severe case of indigestion. Customer churn, employee turnover, and product overlap were potential concerns during the acquisitions, concedes Jim McGlothlin, vice president of higher education at Oracle. "But I think our track record proves we addressed those concerns rather effectively."

That's for sure. For the most part, Oracle has clearly communicated its software strategies to higher ed and other vertical markets. Short term, Oracle continues to position its PeopleSoft solutions as its best-in-class option for universities. That's not to say IHEs running Oracle's own homegrown software have been left in the lurch; development on that code base continues. Longer term, Oracle will meld its original higher ed software with PeopleSoft's code in a project known as Oracle Fusion.

The strategy has earned largely positive feedback from the Higher Education User Group, a major organization representing Oracle and PeopleSoft customers across the higher education landscape.

Southern Illinois University, for instance, completed a migration to Oracle E-Business Suite version 11i this past fall. The deployment spans accounts payable, cash management, fixed assets, general ledger HR, payroll, and purchasing. "We did the upgrade with internal staff because we had the in-house talent and clear understanding of Oracle's strategy," says Frank Scobby, director of administrative information services at SIU, an HEUG member. The university now has a clear long-term investment protection because Oracle is developing migration roadmaps to Oracle Fusion.

Brandeis University (Mass.) also has a clear path to Oracle Fusion. But in this case, the university's journey will start from the PeopleSoft code base. In April 2006, Brandeis deployed the latest version of PeopleSoft's Human Capital Management (HCM) to manage HR, payroll, base benefits, position management, and time and labor functions,

according to Jason Alan Masciantoni, a staff member for library and technology services.

Yet these traditional applications typically require deep pockets for service and support contracts that can easily cost $100,000 or more per year. Plus, not all colleges and universities are clearly situated in the Oracle or PeopleSoft camps. Many institutions NYLS, for one have a hodgepodge of student and financial systems, and they are exploring hosted applications to simplify their IT infrastructures.

Four Models to Know

When evaluating future enterprise software directions, keep these four options in mind:

TRADITIONAL SOFTWARE APPLICATIONS
Leaders: Oracle Corp., SAP AG, SunGard, numerous others
Upside: Very reliable, predictable, and scalable
Downside: Potentially high acquisition and customization costs; potentially high support costs

HOSTED APPLICATIONS
Leaders: Oracle, SunGard, *Drexel University* (Pa.), RightNow Technologies, numerous others
Upside: Monthly subscription fee is an operational cost rather than major capital expenditure; applications can be easily accessed from web browsers.
Downside: Many hosted application providers are small businesses with unproven financial models; universities must carefully negotiate service level agreements (SLAs) to ensure availability.

OPEN SOURCE APPLICATION PROVIDERS
Leaders: Sugar CRM, Centric CRM, several smaller firms
Upside: Few if any acquisition costs; potentially low maintenance costs; ability to customize source code and tailor application for your university
Downside: Many open source providers lack global support teams and are not yet profitable.

HOMEGROWN OPEN SOURCE
Leaders: *Indiana University, Cornell University,* others
Upside: Universities partner together to write and share applications from scratch; leverages strong "collaboration" heritage found within universities; no ongoing fees to third-party software companies
Downside: You may need to hire a team of programmers; one bad piece of code from another university can undermine your own applications.

HOSTED APPLICATIONS

Otherwise known as software as a service (SaaS), hosted applications are generating strong buzz in the IT industry. Customers pay a monthly fee to access applications housed and managed by remote data centers and software providers. The model is simple, easy, and efficient but is it a case of a host with the most?

The model is certainly not perfect. Some IHEs face cultural pushback from trustees and privacy advocates who worry that remotely hosted data can be lost or stolen. But in reality such concerns appear baseless: Data stored remotely is at no greater risk from security breaches than data stored locally, according to Gartner, a technology research firm.

In a hosted model, there are also concerns about service level agreements (SLAs) and application availability. When Research In Motion's BlackBerry e-mail system briefly went dark in mid-April because of a software glitch, many users were reminded that hosted applications fail from time to time.

Another potential concern is that many hosted application providers aren't profitable. "People forget how many application service providers went out of business during the dot-com implosion," says Golod. "I'm not suggesting that will happen again with hosted application providers. But the financial viability of your partners is something to keep in mind as you weigh your hosted options."

If any one university doesn't hold up its end of the bargain in a homegrown open source project, peer universities could wind up with buggy or incomplete code.

Apparently, RightNow, which isn't yet profitable, has plenty of true believers. More than 100 colleges and universities have embraced its hosted CRM software to manage recruitment and retention. For example, the University of Houston uses it to provide students with up-to-date information on academics, financial aid, and campus life. The system saves the university about $1 million annually because it eliminates thousands of expensive, labor-intensive phone calls between students and UH administrators.

Aware of the hosted buzz, traditional software companies also offer hosted versions of their products. But keep the hype in mind. Oracle estimates that five percent or fewer of North American universities have embraced hosted ERP, CRM, and financial services. (Company officials say the adoption rate is growing quickly.) One reason for this: Hosted applications don't involve big capital expenditures for licensing fees and upgrades. The monthly costs are operating costs, which are predictable and easier for college and university CFOs to stomach.

Some colleges and universities are even developing and hosting applications for partner institutions. Such is the case at Drexel University (Pa.), which deployed and now manages the SunGard SCT Banner platform for nearby Cabrini College, which didn't have the internal resources to manage such a deployment, notes John A. Bielec, CIO at Drexel.

OPEN-SOURCE INDUSTRY APPLICATIONS

At some IHEs, however, IT leaders want access to an application's inner workings so that they can tinker with the code and make enhancements on their own. In such schools, open source solutions from Centric CRM, Sugar CRM, and others might make the grade. In the open source model, IHEs typically pay a nominal or even no licensing fee to use the software. The only real ongoing cost is typically an annual maintenance fee that is usually a fraction of traditional "closed source" application fees, notes Golod.

Universities also gain the right to look into the software's source code the hidden instructions that tell a program how to function. From there, programmers can tailor it to institutional needs.

Open source solutions such as the Linux operating system, MySQL database, and Apache web server have gained critical mass within higher ed. CRM and ERP applications are newer. Although more technology consulting firms and integrators now support open source applications, it can be difficult for administrators to find the talent they need, when they need it, for an open source project.

Seven Questions Worth Asking

A growing number of colleges and universities now use hosted applications. Administrators should be sure to ask questions about the following issues before signing on the dotted line with a managed service provider.

1. **Service Level Agreements:** Does the hosting center offer fivenines (99.999 percent) or better availability? If not, what are the contingency plans to restore failed applications?
2. **Backup Sites:** Where are primary and backup sites located, and how is data moved between them in the event of an emergency?
3. **Upgrades:** How are software updates delivered, and do they trigger any system outages?
4. **Data Protection:** Where is student and university data stored, and how is it protected?
5. **Financial Viability:** How is the application provider funded, and what is its current financial standing?
6. **Guarantee:** What happens if the university isn't satisfied with the system? Is there an easy, reasonable path back to your old system?
7. **References:** What do staff at peer universities that are using the system have to say about pricing, performance, support response times, and the benefits delivered by the system?

HOMEGROWN OPEN SOURCE

If you want the benefits of open source but don't want to purchase such software from small software companies, there is another option: homegrown open source.

In this scenario, multiple IHEs partner to design and share open source applications. Indiana University, for one, is working with several peer institutions on the Kuali Project and the Sakai Project. While Kuali focuses on financial software, Sakai involves course management, notes Brad Wheeler, CIO of IU.

During the 1990s, IU administrators worked with an outside consulting company to write and develop the university's own financial software platform. But as the industry shifted from client-server to internet computing, the university had trouble keeping pace.

Kuali, which several universities are already testing, could change all that. By sharing code between universities, each institution can focus on one or two key areas of software development. The project should speed ongoing code enhancements and information sharing. Indiana University, for instance, plans to use a reporting module written by staff at Cornell University.

What's the downside? If any one university doesn't hold up its end of the bargain, peer universities could wind up with buggy or incomplete code. Also, here again, universities must clearly document all code changes. This will ensure that universities continue to have a clear feel for product changes and upgrades even if IT staff members come and go over the years.

Kuali and Sakai are real-world solutions that have only been deployed on a limited basis. "It's safe to say that the open source community will continue to gain momentum," says Golod. "It's a natural fit for the universities that like to collaborate with one another."

Still, in the enterprise software space, one thing is clear: No one size fits all. Universities have at least four software models from which to choose. Weigh the options carefully. Examine long-term product roadmaps closely. The end-result should be a software system that manages student relationships from recruitment all the way through alumni giving.

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RESOURCES

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