Always seen as somewhat of a financial hollow leg, technology needs to offer even more for the money today. This calls for creativity in at least one of four key areas—borrowing, partnering, fees, or procurement—depending on your institution.

High Tech, High Tab?

Alternative Approaches to Funding

By Larry Goldstein

THE CURRENT ECONOMIC CLIMATE IN HIGHER education has created financial pressures that challenge even the most seasoned veterans. Reduced state appropriations, poor investment performance, and declining private support are driving revenues down, while costs continue to escalate. So for technology—the third largest cost category behind compensation and facilities, often seen as the "money pit"—the heat is on. No matter how much is invested in technology, the demand for services and capabilities seems impossible to satisfy.

Most of us in the educational community recognize that technology holds incredible promise for campuses—as a means of both enhancing the learning process and improving the efficiency and effectiveness of conducting campus operations. As such, colleges and universities have been searching for new ways to finance the acquisition or enhancement of technology.

The approaches taken by institutions reflect the diversity within the higher education community. For some, the goal is to identify others who can provide the resources to finance technology enhancement. A prime example of this approach is reliance on foundation support. Others have concluded that they must fund technology themselves, but they seek to spread the investment over a number of years—something that lenders were reluctant to do as recently as 10 years ago.

This article focuses on the mechanisms being employed by colleges and universities to ensure that they are making the most effective technology investments, and in ways that are appropriate to their individual situations. The specific approaches discussed fall into several categories: borrowing, partnering, fees, and procurement. Various strategies and examples are provided in each category ranging from long-term borrowing to the introduction of new fees attached to Web-based transactions.


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New Lessons in Borrowing

Long-term borrowing only recently became an option for the financing of technology. Years ago when I sought to obtain financing in this area for the University of Louisville, lenders had great concern about the viability of computing equipment as security for loans. They were worried that they'd be left holding the bag if the university fell on hard times and could not pay its bills. Despite the remoteness of this possibility, loan officers had visions of attempting to resell desktop computers that had outlived their usefulness. Understandably, they were reluctant to provide repayment terms extending even three years, which was the generally accepted life of desktop computing equipment at that time.

Eventually, the university was able to spread the cost of acquiring technology over five years by executing a master lease with a local bank. The lease terms enabled the university to procure various types of technology such as desktop workstations, peripheral equipment, servers, and other items with varyingly useful lives. A list of items acquired was provided to the bank and, once filed by the bank, this served as security for the lease. A repayment arrangement was established to spread the financing over a rolling five-year period. As new items were purchased, the list was updated to include identifying information for new equipment.

At the same time, the payments were adjusted to reflect the fact that a larger amount now was owed to the bank. This arrangement served the university well, because it included favorable terms as well as a significant amount of flexibility with respect to the types of items that could be financed. The only significant problems with the arrangement were the $10 million bank-imposed cap on the amount that qualified for tax-exempt financing and the lender's reluctance to extend the term beyond a five-year period.

Although a five-year financing arrangement was better than the past practice of paying for everything at once, there still was a need to spread some acquisition costs over an even longer period. At least two institutions have found a way to accomplish this: the University of Illinois and the Maricopa County Community College District.

The University of Illinois purchased a comprehensive suite of administrative software, in large part using a 15-year lease arrangement involving certificates of participation. This arrangement was used to finance the software acquisition as well as other costs related to the implementation of the new system. Additional costs included desktop hardware, servers, infrastructure upgrades, consulting fees, and salaries for staff working on the project.

This financing is the first of its kind for the university, and it has let Illinois acquire the software and implement the system with reduced out-of-pocket expenditures. "The certificates were issued in a low-interest-rate environment, and the structure cemented the university's commitment to the project," says Doug Beckmann, assistant vice president for business and financial services. "The repayment stream, which essentially represents a consistent long-term investment in administrative technology, converts this investment into the 'unavoidable' expense category."

Stephen Rugg, vice president for administration and comptroller at Illinois, believes that the implementation of this system will serve the university well. "Through this approach, the university has addressed its administrative technology needs for the foreseeable future, especially since the acquisition of new system software was accompanied by considerable business process redesign in an effort to maximize the functionality of the new system. The applications will evolve and additional investments will be required, but the long-term financing has softened the impact of the initial acquisition."

The situation at Maricopa is slightly different. Rather than purchasing an entire suite of administrative applications, this community college district wanted to acquire a single application—a student information system. In making the case for bond financing, Maricopa compared the system's characteristics to those of more traditional capital projects such as buildings, which are routinely financed in this way. Maricopa was able to convince bond counsel of the capital-like nature of the system. Once the system was judged to be equivalent to a capital asset, such as a building, it qualified for bond financing. The student information system was included in a bond issue, along with various facilities.

Rufus Glasper, vice chancellor for business services at Maricopa, described the substance of the effort: "Essentially, we made the case that the system was critical to Maricopa's ability to function as an educational institution and generate tuition revenues." Maricopa financed the acquisition of the new system with bonds and pledged tuition receipts to the repayment of the debt. Although the district expects the software to last a minimum of seven years, it elected to take a conservative approach and repay the system portion of the debt during the first six years.

Approaches to Partnering

The approach taken at the University System of New Hampshire is slightly different and does not involve the use of external debt. The individuals responsible for providing the funding needed to maintain an adequate technology infra-

structure and employed a sophisticated planning process. Ed MacKay, vice chancellor and treasurer, indicated that the New Hampshire system relies on a five-year plan to chart the overall approach to technology on the various campuses. MacKay calls the plan "a guide that recognizes the rapidity with which the technology environment changes." As such, he says, it is updated annually and "completely revised every five years." Major acquisitions are built into the five-year plan, and contingencies are provided to enable the New Hampshire system to respond to issues in the out years of the plan that could not have been anticipated during its development.

The University System of New Hampshire has not had to rely on external debt to finance its technology environment up to this point, but it has used innovative approaches to extend the value of its investments. For instance, it has an agreement with the New Hampshire Community Technical College System to provide videoconferencing services. Similar services are provided under separate agreements with various state agencies.

Additionally, a variety of partnerships are under consideration with other state agencies. If established, the arrangements will leverage the University System of New Hampshire's technology investments while reducing the overall IT costs for the agencies. While agency-paid fees would cover the direct costs for the services, the major benefit to New Hampshire would come from enhanced technological infrastructure. Says MacKay, "The added capacity required to serve the needs of the state agencies would be available to our campuses, thereby increasing our overall ability to meet technological needs on a 24/7 basis."

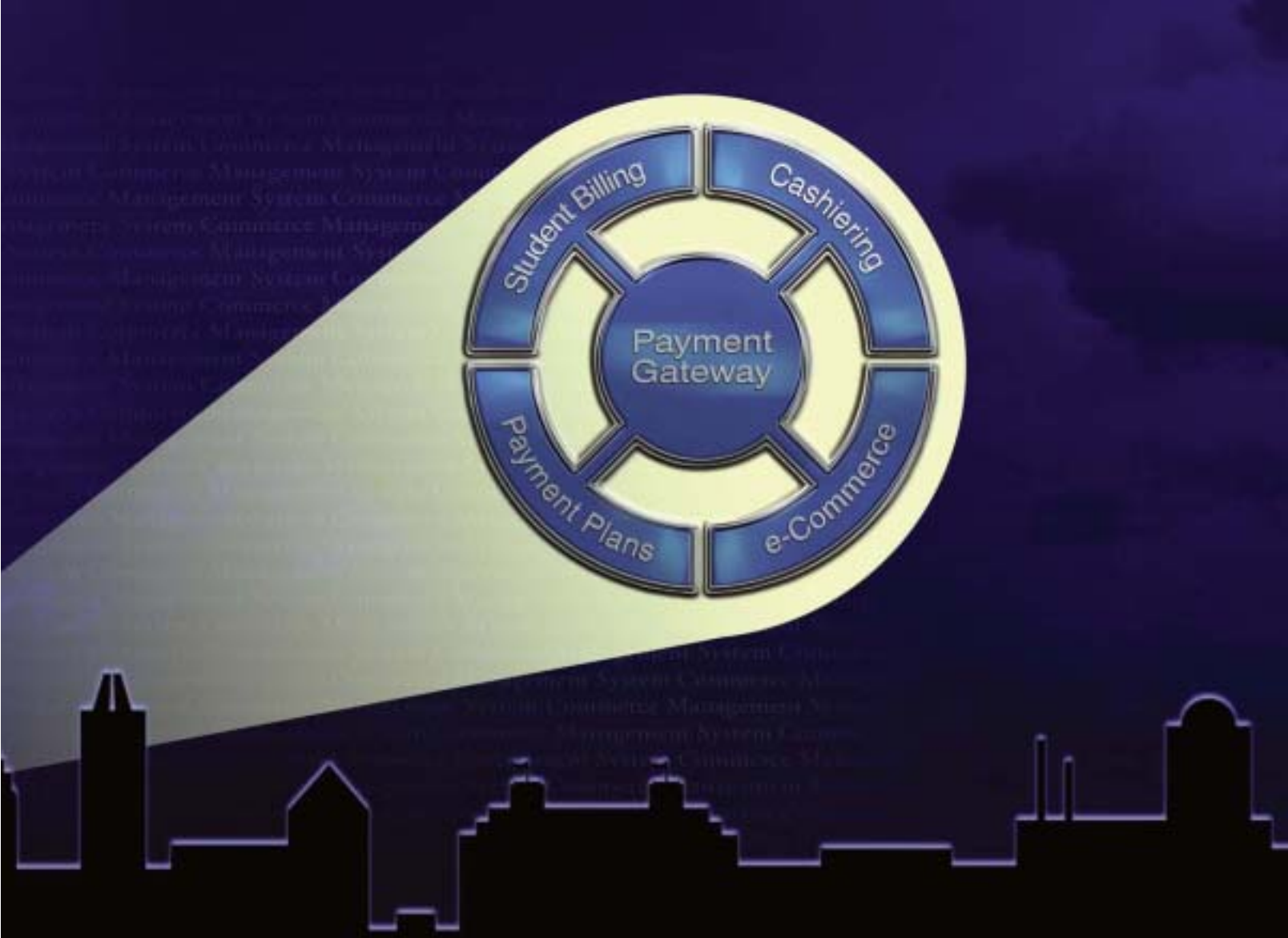
Another example of a partnership arrangement involves Internet service providers (ISPs). The New Hampshire system and another state agency agreed to collaborate on their respective ISP arrangements. Each entity contracted separately with a different ISP for its primary service. Under the terms of the agreements, however, the primary ISPs agreed to provide backup service for the other entities. The net effect of this arrangement is to ensure that both the agency and the New Hampshire system have effective ISP arrangements without incurring the high cost of totally independent backup arrangements.

Another type of technology partnership that has been successfully implemented involves distance education. The Tennessee Board of Regents has partnered with its campuses to offer education enabled by technology. Under the terms of the arrangement, the campuses either develop and deliver instruction or serve as hosts for instruction developed by their colleague institutions, through the Regents Online Degree Program. The campuses are able to focus on the course content and delivery, while the regents' office takes care of logistics and

administration. The revenue is distributed three ways. The majority is divided between the campus delivering the instruction and the home campus. The regents' office gets a small portion of the revenue to cover the program overhead and provide the technology infrastructure.

According to Chancellor Charles W. Manning, the program works because of the collaborative approach. The campuses could not have undertaken the effort individually and, without the course content the campuses provide, the regents' office would not have been able to offer an online degree program.

Still another type of partnership was entered into by the University of Memphis, which wanted to develop a technology center. In this case, the state, the university, and FedEx joined forces to develop a center located at the university. Both FedEx and the state contributed capital dollars, while the university contributes its operational expertise. The arrangement provides FedEx access to a state-of-the-art technology facility to



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support its research and development. FedEx also supports the university's faculty through sponsored programs conducted in the facility. The university believes that the state would not have provided the capital funds without FedEx's involvement.

At least one private institution has elected to leverage its technology investments through a different type of partnership arrangement. In fact, this is more of a shared-services approach than a true partnership. Drexel University determined that it has sufficient technological expertise to offer services to other institutions, including Cabrini and Neumann. By doing so, Drexel provides services and capabilities that these colleges could not afford on their own. At the same time, the income received from the other educational institutions enables Drexel to increase its own technology capacity. The enhanced capacity serves Drexel's partners, in turn, as well as increasing what Drexel can offer its various departments.

The arrangement provides other less tangible benefits as well. For one, Drexel has been able to attract and retain high-quality technologists because of the wide range of opportunities it can provide. Jan Biros, associate vice president for instructional resources and technology, explains that Drexel offers staff "opportunities to work with a more diverse customer base." Although the university itself might need only one person to perform a certain desirable task, for example, its customers could have similar requirements, extending the opportunity to provide this type of experience to more employees. This lets Drexel create more learning opportunities and promote upward mobility in its staff. Besides having a positive impact on Drexel's technology capacity, Biros says, the arrangement has contributed to a "more enjoyable and rewarding workplace."

When Fees Fit the Bill

Some institutions have implemented student technology fees as a means of generating additional resources to finance technology enhancements. This was a popular approach at some campuses during the late 1980s and early 1990s, and the funds were used to build and equip computer labs. In some cases, fees paid for the installation of cable or fiber optics, extending the campus technology infrastructure to residence halls and connecting students to the wide area network.

More recently, however, institutions charging student technology fees are using them to cover personnel costs rather than equipment or infrastructure. This reflects the fact that many college students are arriving on campus with desktops or portable computers. That, coupled with the increased functionality of computers, means that students are placing greater demands on the campus technology staff. As a result, the funds previously used for capital purposes are now paying salaries for help desk and other support personnel.

A number of institutions that previously relied on student technology fees have abandoned them in recent years, however. For some, the decision was part of a comprehensive strategy to eliminate all separate fees assessed to students. In several cases, this was driven by concerns on the part of the governing board that, in general, the use of fees had gotten out of hand. Rather than maintaining a complex fee structure, some institutions increased tuition by a small amount to replace the fee revenues.

In other cases, the elimination of student technology fees was more specific and driven by the belief that a separate fee could no longer be justified. Given that technology has become ubiquitous and a resource considered as essential as heat, light, and water, it was deemed unacceptable to charge a separate fee for it. Although some industries, such as airlines and taxis, have assessed surcharges or special fees during crisis situations, higher education has typically not relied on surcharges or extra fees related to utilities. Even during the California energy crisis several years ago, it was extremely rare for institutions to pass along increased costs to students.

At least one institution, however, is attempting to break new ground in the area of fees. The University of Idaho is developing plans to assess a very small fee on each financial transaction processed via its Web site. Says Jerry Wallace, the university's former vice president for administration and finance: "Our original idea was borne out of the realization that Web hosting and Web site management have become a utility of sorts and that dependable access and market-responsive services require a sustainable and reliable funding structure."

The fee concept is based on a model first popularized by supermarkets during the 1950s. Under that model, a very small profit was embedded in the price of each product sold. In some cases, the profit represented well under half a cent. One might have argued that the profit margins were too low to amount to anything. Given the large volumes of products sold by companies like A&P, Kroger, and Safeway, however, it would be foolish to suggest that this was not a profitable model. Even today, one only has to look as far as Wal-Mart to see that relatively low profits on high-volume sales can generate huge revenues.

Idaho's concept of attaching very small fees to Web site transactions—whether donations, tuition payments, purchases from the internal stores operation, or payment of a parking fine—works by deducting a small percentage or modest fixed

fee during processing. The fees will be used to maintain a state-of-the-art Web environment. "This method should provide a reliable source of revenue to sustain the infrastructure needed to support the service," Wallace says. "Of course, the actual level of charges will have to be analyzed to match the activity and amount of expenditure level required for the supporting infrastructure."

Since this initiative is only in the planning phase, it's not clear at this point whether the revenue volume anticipated by the university will be generated. For instance, some departments may elect to process transactions outside the Web environment to avoid the fee. Additionally, it's possible that legislation could be passed to preclude the imposition of fees on Web-based activity. Even with these potential hurdles, Idaho deserves credit for trying to develop a model that will enable the university to accumulate the funds needed to sustain a sophisticated technology environment.

Strategic Procurement

There is at least one other route to maximizing results from technology investments: a new look at procurement. This has proved popular with a number of institutions and is, by far, the easiest to implement. It consists of various steps that can be taken to leverage investments and obtain more technology for less money.

One approach is consortial buying, wherein institutions band together to ask a vendor for discount pricing for all members of the consortium. This practice can be used to acquire equipment, software, or even services. Consortial purchasing pacts can grow out of formal affiliations or they can be ad hoc arrangements involving informal affinity groups. The SouthEastern Pennsylvania Consortium for Higher Education (SEPCHE), for example, is an organization created to serve the mutual interests of eight independent institutions in the Philadelphia area. The institutions collaborate on a wide range of activities including academic programs, student access, and faculty development. Representing the member institutions, the consortium worked with a higher education software vendor to establish a special acquisition opportunity available only to its members. The arrangement involved a specific software solution with discounted pricing. What makes this approach so attractive is that it typically does not require full participation by all consortium members. In this case, three of the eight members elected to take advantage of the opportunity, producing several benefits for the institutions. Brighid Blake, SEPCHE executive director, described the benefits as "overall reduced cost to acquire the system, together with access to colleagues at similar institutions going through the implementation process at the same time."

Another procurement option involves the establishment of life cycle planning and procurement standards. One of the difficulties encountered by colleges and universities is the high overhead attached to maintaining various types of equipment and software. Although institutions can have legitimate reasons for using multiple platforms and software versions, this often occurs because those in charge don't establish standards. By specifying a life cycle replacement standard and designating a preferred provider for desktop technology—both hardware and software—an institution can ensure a reasonable level of comparability and avoid the excessive cost of maintaining expertise on multiple platforms or outdated versions of software.

Reducing Tech's Tab

The demands for new technology services will not abate any time soon. As new features are developed and applications become more sophisticated, it is likely that customers will expect faster, more reliable, and more comprehensive service. It is well recognized that the cost of most new technology is lower when compared on an "apples to apples" basis. However, new technology—whether in the form of hardware or software—tends to improve on what is being replaced, and that improvement frequently carries a larger price tag.

With the increasing reliance on technology to facilitate various campus activities, colleges and universities must find ways to get the most capability with the least possible investment. For some, this means spreading the cost over longer periods of time. For others, it means identifying new revenue streams to support the acquisition of technology or exploring cost-reduction methods. The approaches being implemented at the various institutions discussed in this article can trigger additional ideas for technology funding throughout the higher education community.

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