Fall 2003

ACUTA Journal of Telecommunications in Higher Education

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## Events Calendar

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**ACUTA's Core Values are to:**
- Share information, resources and insight,
- Respect the expression of individual opinions and solutions,
- Maintain our commitment to professional development and growth,
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More federal controls and standardized federal tests are not the answer: They represent unfunded mandates at best and threats to the quality of our institutions at their worst.

Graham Spanier, PhD
President, Pennsylvania State University

Published Quarterly by
ACUTA: The Association for Communications Technology Professionals in Higher Education
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The ACUTA Journal is published four times per year by ACUTA, a nonprofit association for institutions of higher education, represented by telecommunications managers and staff.

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ISSN 1097-8658

POSTMASTER, send all address changes to:
ACUTA
152 W. Zandale Drive, Suite 200
Lexington, KY 40503-2486
Postage paid at Lexington, Kentucky.

Visit the ACUTA site on the World Wide Web:
http://www.acuta.org

Membership and Subscriptions
Subscriptions are provided as a benefit of membership. The publication is available to nonmembers for $80 per year or $20 per issue. For information, contact Kellie Bowman, Membership Development Manager, 859/278-3338, ext. 22, or e-mail, kbowman@acuta.org.

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Legislative and Regulatory Issues Will Always Be Important

While I was reviewing the excellent articles for this journal I was reminded of my first committee assignment in ACUTA. I joined the Legislative and Regulatory Affairs Committee to learn more about our legislative and regulatory process (it had been a long time since my high school government class) and to become more involved in the change process itself. Anthony Tanzi was chairman, and our hot topics were the Telecommunications Act, Operator Services Act, caller ID, and advocacy.

There is a double benefit to joining a volunteer organization. The first is that it is one of the best ways to learn more about a topic of interest. The second is the satisfaction of providing a service to our community. The footnote on your resume looks pretty good, too.

I remember that during the early 1990s local and national telephone companies said that the advanced signaling system 7 network being deployed was for the use of telecommunications companies only, and that private business (universities included) would have no need for these services. They stated that it would be illegal and contrary to national security for a private PBX to connect directly to this network.

After a little investigation I found no laws or security statements to back up their claims. I wrote to the appropriate regulatory group and applied for a signal point code (the ID number needed to connect to the network) for the university. I received one in two weeks. While it took a little longer to make it all work, it did.

People casually use laws and regulations as barriers to move forward. Don’t accept them at face value, and if there really are laws preventing a desired action, it might be easier to change than you think.

During my early days doing committee work, I realized that my peers were having regular meetings with their state commerce commissions and legislators. I also realized that we were taking ACUTA to a new level, to become more involved in Washington with federal issues. This group encouraged me to make my first trips to an Illinois Commerce Commission meeting and a State of Illinois Legislative Telecommunications regulatory subcommittee meeting. While it was initially a little intense for me, I was surprised by how warmly I was greeted by both groups as I represented actual users of services and not a vendor or business trying to obtain leverage by legal means.

The subcommittee meetings were intense as there were several armed camps: the local Bell company, the long-distance carriers, and the Illinois Commerce Commission. The state’s telecommunications bill was being rewritten due to the sunset clause that it originally included. Everyone was
there to have it rewritten to favor their special interest. The Commerce Commission and state residents won in the end, and the university's exemption was included.

Some may think that as the lawsuits over the Telecommunication Act of 1996 finally reach the Supreme Court, the work in ACUTA's Legislative and Regulatory Committee is slowing down. Nothing could be further from the truth. New security and privacy laws are coming out at too rapid a pace, and universities are included, if not targeted, in many of these laws. IP telephony and the Internet in general have moved fast and furious, mostly because it has been left unregulated and untaxed. As more voice and retail sales move to the Internet, tax and regulation will follow. MP3 has been only a small irritant compared to the problems of full-length motion pictures being illegally traded across our networks. Privacy and piracy have become major concerns and significant topics in Washington and on campus.

Our recent annual conference in Hollywood, Florida, with its theme of iRiding the Wave of Changei highlighted and discussed in detail many issues relating to legislation and regulatory agencies. Mobile computing, security, accessibility, and policies and procedures were among the many topics covered. Jeff Linder provided an in-depth review of the policy makers and policies that will affect our campuses.

The legislative and regulatory process will continue to be a major topic of interest and concern for all in and out of the communications field. We need to continue our involvement in the process and become better advocates in the local, regional, and national arenas. Our faculty need the ability to have open and uncensored access, even as we do a better job of educating and preparing our students to rewrite the laws and rules of the future.
Legislative and Regulatory Update

by Jeff Linder

As ACUTA members are well aware, keeping up with new developments in the telecom industry can be a full-time and often confusing job. Not only is there a never-ending stream of new products and services, but the always arcane regulatory ground rules seem to change on a weekly basis. This article endeavors to pin down the current state of play, from a regulatory standpoint, in five critical areas: local competition, long-distance competition, universal service, broadband, and the FCC’s new do-not-call rules.

Local Competition

At long last, local competition seems to have taken hold notwithstanding the “telecom meltdown” of the past three years. For business and institutional users, competition has become fairly prevalent—in many areas, the incumbent local exchange carriers (ILECs) have lost 25 to 40 percent of their business lines. Moreover, most of the competitors in the local business market are using their own facilities to provide service, either through complete overbuilds of the ILECs’ networks or through a combination of their own switches and transport links and unbundled loops leased from the ILEC.

In the residential market, competition comes from both “intra-modal” (traditional telephony) and “inter-modal” sources (such as wireless, cable telephony, and Internet-based services). Competitive local exchange carriers (CLECs) have captured approximately 10 percent of residential access lines, although the vast majority of these are served through leasing and reselling the ILEC’s loops, switching, and interoffice transport (the so-called UNE Platform, or UNE-P). Cable companies are providing circuit-switched telephony to more than three million residential lines (and some 500,000 business lines), and they are poised to roll out Internet Protocol (IP) telephony, which is expected to capture up to 30 percent of the market in the next several years. Wireless services have replaced tens of millions of second phone lines and three-to-five percent of primary phone lines, and have displaced untold billions of minutes that otherwise would traverse landline phone networks. And Internet-based services such as instant messaging (IM) and e-mail likely substitute for up to a third of all communications traffic.

For the past year, the FCC has been struggling to determine how to modify its local competition rules in light of the rapid rise of both UNE-P and inter-modal competition. In its Triennial Review proceeding—so named because the Commission had promised to revise those rules every three years—the agency has adopted revised unbundling requirements. No recent FCC proceeding other than the media ownership docket has been so controversial; no aspect of the Triennial Review decision was supported by more than three of the five Commissioners.

In general, the new unbundling rules require ILECs to continue to offer unbundled access to “legacy” network elements such as copper loops, circuit switching, and interoffice transport. The most controversial aspect of this decision relates to circuit switching.
ILECs noted that CLECs have deployed 1,300 of their own circuit switches, and argued that their ability to do so means that they are not "impaired" without access to unbundled switching from the ILEC. (Under the 1996 Act, an element must be unbundled only if CLECs would be "impaired" in competing without it.) The CLECs responded that they use those switches to serve only business customers and cannot economically serve residential customers without using UNE-P; the ILECs counter that some CLECs are in fact providing competitive residential service with their own switches and unbundled loops and that inter-modal competition from cable telephony and wireless militates against an impairment finding.

The FCC’s response was to presume impairment for mass market customers, presume non-impairment for business customers (those with a DS-1 or higher connectivity), and punt the final determination to state regulators. Specifically, the Commission said that the PUCs would have nine months from release of the Order to make the impairment determination for mass market circuit switching (but only 90 days for large business circuit switching), after taking into consideration specific factors that will be identified in the Order.

Another controversial aspect of the FCC’s decision is its exemption of broadband facilities from unbundling obligations. In particular, the Commission declined to mandate unbundling for fiber-to-the-home loops, hybrid fiber/copper loops (with certain exceptions), and packet switching. The agency also phased out over three years the ILECs’ obligation to allow “line sharing”—that is, to permit a CLEC to provide DSL service using the high-frequency portion of a loop used by the ILEC to provide voice service.

Finally, the FCC clarified two critical aspects of the pricing methodology (known as TELRIC) that is used to determine the rates at which competitors may lease unbundled elements, holding that inputs for depreciation and cost of capital must reflect a fully competitive marketplace. These adjustments are likely to result in increased UNE rates. (In addition, the Commission is expected shortly to initiate a new proceeding to reform TELRIC more broadly; again, the expectation is that wholesale rates for UNEs will go up.)

From the perspective of ACUTA's members, the Commission's decision will mean continued uncertainty. Colleges and universities that currently take service from a CLEC that uses either its own facilities or its own switches combined with unbundled ILEC loops probably will see little impact from the decision, although the new TELRIC rulemaking may cause the CLEC’s loop costs to increase. Any institution served by a UNE-P-based CLEC has more at risk; while UNE-P may remain in place for another three years or even longer, the CLEC’s cost of leasing the platform from the ILEC may increase significantly. In addition, all aspects of the Order undoubtedly will be
appealed, and there is a significant chance that some portions of it (including UNE-P) may be sent back to the FCC for additional consideration or may even be nullified. We will keep the ACUTA Legislative and Regulatory Affairs Committee up-to-date on developments in this area.

**Long-Distance Competition**

The long-distance market, in the words of one industry analyst, has become "hyper-competitive." Bell Operating Companies (BOCs) have received authority to offer in-region service in 42 states and the District of Columbia, and all remaining authorizations should be received by the end of this year. In addition, wireless and Internet-based services are direct substitutes for many types of traditional long-distance calls—indeed, wireless long distance now accounts for almost one-third of all long-distance traffic. Adding to the competitive mix, WorldCom (to be renamed MCI) is still expected to emerge from bankruptcy, with a vastly lower cost structure, in late 2003.

All of this competition is a boon to ACUTA members, at least in the short to medium term. The dark clouds on the horizon relate primarily to investment in the network and layoffs of employees. As pressures to slash costs mount inexorably, many long-distance providers are cutting capital expenditures to the bone and slashing their work forces. What this means for users remains unclear, but ACUTA members may want to pay particular attention to service-level agreements when negotiating new long-distance contracts.

**Universal Service**

Since the 1934 Communications Act, a cornerstone of U.S. telecommunications policy has been the goal of providing affordable, high-quality telephone service throughout the country, including rural and other high-cost areas. For more than 50 years, universal service was funded largely through implicit subsidies. For example, access charges—the charges imposed by local phone companies for originating and terminating long-distance calls—were set well above cost in order to generate revenues that could be used to hold down local phone rates.

In the 1996 Act, Congress recognized that introducing local phone competition would undermine these implicit subsidies. Accordingly, it directed the FCC to develop an "explicit, sufficient, and predictable" support mechanism to fund universal service. Congress also established a new "E-rate" program, which is designed to bring advanced telecommunications services and high-speed Internet access to public schools and libraries.

Today, the Universal Service Fund (USF) is $6.3 billion. High-cost support accounts for a bit more than half of this amount, and the E-rate program represents most of the rest. All telecommunications service providers must contribute to the fund; Internet service providers do not contribute. Currently, the contribution amount is 9.5 percent of interstate, end-user revenues—an amount that all carriers pass through to their customers, often with a mark-up intended to recover administrative costs.

The size of the USF is increasing due to a growth in the number of carriers eligible to receive support and the continuing elimination of implicit subsidies. At the same time, the contribution base is shrinking, for a number of reasons: long-distance revenues are plummeting as rates drop, wireline long-distance traffic is being diverted to non-telecommunications platforms, such as the Internet and voice over IP (VoIP), and the rise of bundled services has made it difficult to identify what portion of revenues should be considered interstate, and thus subject to the contribution obligation.

In late 2002, the FCC adopted interim measures to shore up universal service support. Among other things, the agency raised the amount that wireless service providers had to contribute, and it prohibited carriers from marking up their contribution amounts on their end-user bills, although it allowed the pass-through of administrative costs. Simultaneously, the Commission sought comment on longer-term reforms to the contribution mechanism. In particular, it proposed three options for replacing the current, revenue-based system: two variations of a connections-based methodology and one that would impose a fixed fee per working phone number.

The impact of these alternatives on ACUTA members remains unclear, because the details of the various proposals are still being refined. Also unclear is the Commission's likely direction and the timing of a decision. There is no broad support for any of the alternatives, but there is vigorous opposition to all of them. The Commission might issue an order by the end of the year, but that could easily slip.

Finally, there are several outstanding issues besides the contribution methodology that could affect the size of the fund (and therefore the amounts passed through by carriers to customers). First, the Commission has asked whether equal access should be a supported service. If so, many wireless carriers would become ineligible, which would diminish pressures on the fund but
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might weaken competition in rural areas. Second, the FCC has inquired whether it should continue to provide full support to phone lines beyond the primary residential line. Third, the agency has sought comment on whether CLECs should receive support based on the ILEC’s costs, or should have to demonstrate their own costs (which may be either lower or higher). Once again, the Leg/Reg Committee will continue to monitor these issues and participate as necessary in order to advance the interests of ACUTA’s members.

Broadband

There are three pending FCC proceedings regarding the regulatory status of broadband services. The most controversial one is examining whether broadband services offered by ILECs (such as DSL) should be subject to common carrier regulation or treated as unregulated services. At issue is whether ILECs should have to make available broadband transport services to unaffiliated information service providers (ISPs).

The second proceeding asks whether, if ILEC broadband services are subject to regulation, the ILECs should be treated as “dominant carriers.” In general, dominant-carrier regulation would require ILECs to file tariffs for their broadband services and provide supporting evidence to justify their rates.

The third docket is considering whether cable companies providing broadband services should have to provide access to competing ISPs, and whether they should have to contribute to the USF.

As you would expect, the comments on these issues are polarized. The ILECs argue that they are new entrants in the broadband market, with a collective market share of only one-third (with cable modem service representing almost two-thirds of the market). Accordingly, they contend that they should not be subject to regulation and will have a strong incentive to make wholesale broadband transport available to unaffiliated entities. ISPs argue that, since cable companies have no open-access obligations, the Commission must require ILECs to make broadband access available on a non-discriminatory basis. The ILECs respond that this regulatory disparity vis-à-vis cable modem service is indefensible and that regulation of their broadband offerings diminishes their incentive to invest.

Originally, the FCC had hoped to issue decisions in at least some of these dockets by the end of the summer. Now, however, it appears that no Orders will be released until later in the year, or possibly not until the first quarter of next year.

Do-Not-Call Issues

In early July, the FCC released its much-anticipated revised telemarketing rules. The aspect of the rules that has received the most attention is the national do-not-call list. As of mid-July, 25 million consumers had signed up for the list, and 60 million are expected to do so by the October 1, 2003 effective date.

Although the FTC already mandates compilation of a national do-not-call list, the FCC’s rules greatly expand its scope. The FCC’s authority over telemarketing extends to intrastate as well as interstate calls, and covers several major industries—telecommunications, banking, insurance, and transportation—that the FTC cannot regulate. The new FCC rules apply to all telemarketers except tax-exempt organizations and calls regarding political or religious speech.

Under the rules, telemarketers may not call consumers who have placed their names on the list. In addition, telemarketers may not block caller ID, and they must implement measures to reduce the number of abandoned calls. They can, however, contact individuals with whom they have an “established business relationship” during an 18-month period following a business transaction or a 3-month period after an inquiry, unless those individuals ask to be put on a company-specific do-not-call list. Finally, the Commission also broadened limits on the use of prerecorded messages and imposed (but subsequently stayed) strict new limitations on unsolicited faxes. Notably, the FCC’s rules are a minimum baseline; the Commission said that states remain free to adopt more restrictive telemarketing laws.

Virtually every aspect of the new FCC rules is or will soon be challenged either in court or in petitions for reconsideration. ACUTA has participated before both the FCC and FTC, seeking clarification on implementation issues of particular interest to colleges and universities, and the Leg/Reg Committee will continue to track developments in this area.

As is true for life generally, the only constant in telecom is change. I look forward to continuing to work with ACUTA to anticipate, shape, and explain future developments in these and other areas affecting colleges and universities.

Jeff Linder is a partner at the Washington law firm of Wiley Rein & Fielding. Reach Jeff at Jlinder@wrf.com.
In-House Regulations Make Members Happy, Sad

Cell phone regulations are hot topic

The rules we impose upon ourselves—to avoid chocolate desserts, to read a good book each month, to exercise for 30 minutes a day—are the toughest to keep.

The same goes with the rules and regulations set up for use of internal phone and computer networks. When it comes to connecting the school network to the public switched telephone network (PSTN), it is easy to rely on state law or FCC requirements for the basic regulations. We have no choice.

Contrary to what cynics might say, the government has not come up with rules and regulations to cover every eventuality. While there always is a danger that regulations set up internally can be attacked by dissenters as capricious or self-serving, most in the user community like knowing the boundaries. Who pays for cell phones? How many color printers can I have on a network? What happens if I don’t pay for that 94-minute call to India?

With internal rules, there is no “big brother” to take the heat when someone objects to a decree set up by the telecom department. Besides, there’s always that nagging doubt as to whether or not the regulation is worthwhile. After all, who really cares if you eat another chocolate mousse?

Most ACUTA members say their homegrown policies work well. “The internal policy I am most pleased with is the UMKCnet Connectivity and Usage Guidelines,” says Vicky Doerr, director of telecommunications at the University of Missouri–Kansas City (UMKC). “This guideline [http://www.umkc.edu/is/cio/policy/umkcnet-guidelines.html] allows networking to manage, document, and secure the campus network.”

The policy statement applies to all faculty, staff, students, and guest users of UMKC’s computer networks, equipment, or connecting resources. While it provides that any legitimate user must be connected, it also requires that a service order be filled out. It has to contain funding information, a contact person, and an exact room location where the data jack is needed.

Sheila Sanders, director of telecommunications services for the University of Alabama at Birmingham (UAB) is another who is happy with a technical policy. UAB’s “Policy for Connecting Devices to the Voice, Data, and Video Network” is at http://www.dpo.uab.edu/ciscnet/netpol.html.

UAB has established wiring standards for use with its voice and data networks. University Communication Services set up the standards, with input from Health Information Systems and the University Computer Center. They lay out the various elements necessary to connect new devices to the network and would be a good start for anyone looking to write a similar set of guidelines.

by Curt Harler
"Prior to this policy being implemented, we were challenged with users buying their own hubs," Sanders notes. In many cases, this caused a tremendous amount of disruption on the network. "The move to centralization has, in the long run, allowed us to provide many additional services, in particular with securing the network," she says.

Selling Cell Phone Policy

One of the best policies at Stonehill College (Easton, Massachusetts) is the one dealing with cell phones. "We're keeping a tight lid on cell phone use," says Ginny Murphy, director of telecommunications. The school has just 20 cell phones, including eight that are on reserve as spares or for emergency use.

"Cell phones are for vice presidents and above," Murphy explains. "Requests have to come through me first, and the financial vice president has to give approval."

To add teeth, Murphy has set things up with Verizon so any requests for cellular service at Stonehill have to bounce back to her for approval. "Otherwise, every person in the athletics department would have one," she laughs.

Faculty or staff members who document their personal cell phone use for school business are reimbursed on expense accounts.

One part of Stonehill's cell phone policy Murphy especially likes is the prohibition against driving and using the cell phone. "If there were an accident, there could be liability to the school," she explains.

Policy on Policies

At various schools, the policy on policies ranges from spelling everything out to simply presenting basic guidelines. In some cases, simpler is better. "I only have two written policies," says Jeanne Richer, manager of telecommunications at Williams College, Williamstown, Massachusetts. One covers the student telephone service. "It spells everything out for them and makes things run smoothly," Richer says.

The other written policy spells out the cell phone policy for administrative staff. "It has helped to take the heat off me when everyone is asking for a cell phone," Richer says. It also spells out what happens if there is abuse of the cell phone.

At the California State University/Dominguez Hills (CSUDH), phone policy is posted at the school's website (http://www.csudh.edu/infotech/policies). Unlike UMKC, CSUDH phones are installed and maintained at university expense in academic and administrative departments.

CSUDH has a good mission statement: "The mission of Telephone Services is to provide operation and maintenance of University voice communications in support of faculty, staff and students. The scope of the responsibility includes provision and maintenance of campus office telephones, courtesy telephones and directories, public telephones, emergency telephone call boxes, and revision and publication of an annual campus telephone directory." The unit also prints and disseminates information on communications policies and procedures, equipment, and usage.

"We basically take bits and pieces from state policies and cite them when we do our write-ups," says Maria Garcia-Barajas, telephone services coordinator.

Other policies are meant for internal consumption. Angie Fernandez, telecommunications manager at Norwich University, Northfield, Vermont, is both proud and relieved to finally have a malicious-call policy in place. "Getting the malicious-call policy together was like pulling teeth, but it was worth it," she says.

Last fall, a number of situations pointed up the need for a method to handle crank calls. "A lot of people were involved with the language," Fernandez continues. "We worked with security, the equal-opportunity people, the lawyers." It took time and many go-rounds, but she is pleased with the result.

"We felt this was so important," Fernandez says. "We just worked on it until we had it cleaned up." The policy is for internal use and is posted on Norwich's internal website, but Fernandez says she is willing to share the results with other ACUTA members developing similar policy. "It's not that it is the greatest policy, but it is needed and now it is done," she says.

While some policies, like Norwich's, require a great deal of in-house development, telecom administrators can find other policies that are in the public domain already. The CSUDH policy regarding personal calls placed is consistent with the California Administrative Manual 4525.8. The policy provides that personal telephone calls must be billed to the caller's home telephone or placed "collect"; personal
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telephone calls may not be placed over the state lines; and incoming and outgoing personal calls (even when billed to home telephones) must not interfere with the conduct of state business or cause loss of personnel time. Acceptance of third-party or incoming collect calls is not authorized, either.

Any international calls or fax transmissions from CSUDH (and that includes anything outside the continental United States) must be coordinated with Telephone Services. Telephone Services helps to route calls via the most efficient and cost-effective means.

**Preventing Errors**

Telecom administrators, like Doerr, are not always in love with all of the existing policies, but she says she often is grateful for the result. "Although our policy to only process service orders (including voicemail password reset) for authorized signatures on valid accounts is a hassle, it has saved many mistakes," Doerr says.

It also establishes a direction should push come to shove—but that rarely happens at any of the schools. At CSUHD, "Our university president sends out Presidential Memos (PMs)," Garcia-Barajas explains. One of the PMs covers the telephone policy. If there is a question, she continues, "we first try to enforce it internally within Telephone Services. Then it goes to Telecommunications/IT and finally to the president. This has yet to happen here."

**Dealing with Data**

Sometimes, dealing with the powers-that-be creates hurdles. "My biggest pet peeve—this flat-out ticks me off—is not charging for data services," says Larry Maughan, director of ITS/Communications at Salt Lake Community College (SLCC) in Salt Lake City, Utah. Since SLCC is a commuter college, most services are provided to faculty and staff.

SLCC charges $440 a year for voice service. That includes upgrades, maintenance, the PBX, and connectivity to the PSTN. Back in the hazy bygone years, telecom picked up data services.

"Now we provide WAN data and video out of the telecom budget," Maughan says. "It has driven my budget negative for the past 2 years.

"If I could change one policy, it would be to charge a fee for data," Maughan says. He would like to see a policy that allowed him to charge for the data service, including cabling, LANs, and connectivity to the wide area network. "Administration will not let us do it," he says. "They have a lack of concern for the cost of data connectivity." He knows he will have to sell the administration on the change, and any progress will come over the strong objections of department chairs who want to keep costs low and retain revenue for pet projects.

At UMKC, the Networking and Telecommunications policy sets a one-time fee for installation of a jack. The jack is fully tested by Networking and Telecommunications before activation. Normally, only one or two jacks will be installed within a room (office or lab). However, situations requiring more network connections per room will be supported; this might be a situation where there are servers or shared laser printers.

Users are told that jacks and network cables are university property. They are warned up front that installation of repeaters or other networking devices by anyone other than Information Services staff will not work. Ports will automatically shut down when multiple devices are detected on a single data jack.

At UAB, the vice president for Financial Affairs and Administration is responsible for overall procedures to implement the school's policies on connecting to the network.

"I would not want to get rid of our Network Usage and Guidelines," says Sanders. This guideline makes the UAB Data Post Office responsible for securing its computers, systems, and the campus network to a reasonable and economically feasible degree against unauthorized access and/or abuse, while making them accessible for authorized and legitimate users.

Under the guidelines, the right to use computing and network resources can be revoked if misused or abused, even if unintentionally.
That sounds tough, but Sanders would like to see the guidelines upgraded. "Better yet, make them official policy rather than a guideline," she says. The current version of the guidelines is at http://www.dpo.uab.edu/usage-guidelines.html.

It pays to keep things up-to-date. "We don't seem to have any obsolete policies," Doerr says. As at many other colleges, cell phone use is growing and requires guidelines at UMKC. "Spend- ing and usage of cellular devices is increasing," she continues. "I understand procurement is working on a cellular-service policy."

CSUDH allows employees to purchase and use a telephone of their choice if the set meets FCC and other regulations. This applies to answering machines, fax devices, and fax machines. Equipment purchased by individuals with private funds—plus its repair and maintenance—is the responsibility of the purchaser.

"We are in the process of updating our guidelines for Web page use," Sanders says. This will provide policy defining the different types of pages, such as personal and professional, and their use.

At SLCC, Maughan would like to see updated and tougher policy guidelines for long-distance calls and cellular service for faculty and staff traveling overseas.

"People go nuts when the services we sell them here do not work over there," Maughan says. "It's an issue we struggle with all the time." He would like to see a set of guidelines or agreements with service providers that would give traveling faculty a good price for overseas calls.

Sharing Policies
As with daily exercise or diets, sometimes the best way to a successful program is to work with others. Several ACUTA members indicated that the toughest part of the project is actually sitting down and starting to write the policy.

Most ACUTA members find themselves in similar situations with one policy or another. The good news is that the ACUTA listserv often provides answers or hints when developing policy or service agreements. Members, including those interviewed here, are willing to share information.

"I've taken pieces from the listserv and other policies that I like," Murphy says. That is how she developed the cellphone policy.

UAB's network-usage guidelines are based largely on those developed at Florida International and Florida Atlantic Universities.

If the project is neglected or sidelined, a lack of important policies eventually will catch up with a school—whether legally or financially. With many others willing to share their directives, getting started on the job of policy writing will be much easier.

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Curt Harler is a contributing editor to the ACUTA Journal and a frequent speaker on technology topics. Reach Curt at curt@curtharler.com.

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The TEACH Act and the IT Organization

by Elwin McKellar

Fifteen graduate students log in to the university's course management system, access their Rhetoric of Politics online class, and download the latest assignment from their instructor (a copy of a document he purchased on the Web): an article by a well-known ex-insider about the latest scandal. As each student opens the file, the computer screen blinks once, twice, and goes dead. A fail-safe copyright protection code embedded in the original document just trashed their hard drives.

This scenario is not entirely a fantasy. One must seriously consider prospects such as this when U.S. senators, such as Orrin Hatch (R-Utah), openly discuss favoring development of new technology to remotely destroy the computers of people who illegally download copyrighted material from the Internet. The issues are reaching critical mass.

Consider the implications of the Technology, Education, and Copyright Harmonization Act, part of the Justice Reauthorization Bill (H.R. 2215) that was signed into law by President Bush in November 2002. This new law is usually labeled the TEACH Act. Although it offers many benefits over previous legislation, it carries stringent and specific regulations that apply to institutions, IT organizations within those institutions, and individual instructors who are using copyrighted material without permission from the copyright owner and without royalty payments.

Specifically, the TEACH Act requires reasonable use of technology to
- Limit access to copyrighted works to students currently enrolled in a class
- Limit access only for the time necessary to finish a "class session"
- Prevent further copying and/or distribution of copyrighted works

While campuses should turn to a qualified lawyer for legal advice or suggestions for specific courses of action, following are a few warning flags and some areas to investigate.

What Is Involved?
Specifically, the TEACH Act regulates use of copyrighted materials for distance education. Recent events have highlighted copyright protection of digital media, such as music and video files. The use of point-to-point file-sharing software to trade illicit copies of songs and movies has triggered a storm of lawsuits and new technologies to prevent unauthorized copying. In legal terms, "digital media" includes electronic copies of "original works of authorship" that are "fixed in any tangible medium of expression." The all-encompassing language of the new regulations sweeps a broad selection of materials into its bailiwick and includes much of the material instructors have used under the fair-use provisions of the copyright laws.

The TEACH Act regulates these materials in the context of distance education, which it calls "mediated
instructional activities.” The episodic and limited vision of what constitutes distance education under the new law creates interesting conundrums that warrant discussion as well.

Who Is Involved?

Copyright laws and regulations have traditionally focused on the use of copyrighted material by individuals. The TEACH Act also specifically addresses the responsibilities of the institutions and the IT organizations within those institutions.

• The Instructor

The instructor is the traditional focus of these regulations. The nebulous nature of the old fair-use provisions has been usurped by some very specific language in the TEACH Act. Certain works are explicitly allowed and now include limited portions of dramatic works, up to the amount normally presented in a typical classroom session. This reflects the congressional view that distance learning is a classroom session moved online.

Some works are specifically excluded from display in distance-learning venues, and these include works that were obviously commercial educational materials and those media that the institution knew (or should have known) were unlawfully made or obtained.

The instructor must be in charge and participate in the planning and conduct of the class session. This idea of typical, episodic class sessions is part of the difficulty in meeting the regulations, because of the flexibility of online learning. Prohibitions against digitizing educational materials, such as textbooks, to circumvent the need for their purchase seem reasonable and clear. The same rules are much less clear when applied to the kind of material used in classes as handouts or library reserves.

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Finally, instructors should limit the quantities of analog materials they convert to digital formats, and they must ascertain that digital versions are not already available.

- The Institution

Government bodies and accredited educational institutions must create and publish copyright policies. It seems pretty basic, but many institutions have not specifically addressed these issues, only referring to the copyright law in general terms. The policies and materials outlining and explaining copyright must be made available to students, faculty, and relevant staff.

In addition, students accessing an online course must be provided with a notice that materials used in the course might be subject to copyright protection. This may be a simple disclaimer on the course homepage, or something more elaborate.

Lastly, the materials must be available only to students enrolled in the course, and only for the appropriate course time period (e.g., semester). This would prohibit, for example, putting a copyright-protected digital-media file on an open website accessible to the campus or the world, even though the intended audience is a single class.

- The IT Organization

IT organizations that have not worked with course-management systems like WebCT or Blackboard may be working with them in the future as methods for restricting access “to the extent technologically feasible,” as required in the new regulations.

Digital media transmitted to students must be available only for the period of the “class session.” This is not defined in the law, and will likely be a subject of dispute and conflict in the near future. Limitations on the ability of students to retain, copy, or share this material must operate in an “ordinary” manner to prevent unauthorized retention of the material in an accessible form.

Because it is possible, even accidentally, to circumvent copyright protection and restrictive codes in digital materials, the IT organization must ascertain that its course transmission methods are not interrupting or circumventing technological control measures instituted by the copyright holders.

Perhaps the most controversial area will be in the retention of copies and of recorded materials. Nearly all retention is temporary and limited to the scope of the class, both in length of availability and intended recipients. Long-term retention of recordings (video and audio) is severely restricted and targeted.

What to Do?

First, all accredited, nonprofit educational institutions that are taking advantage of the new privileges under the TEACH Act to distribute copyright-protected digital media for distance learning should review their copyright policies and, if necessary, bring them up-to-date.

Second, consider the use of the TEACH Act as a new and important tool in your institutional copyright toolkit. The fair-use provisions of the copyright law have not been repealed and are still applicable in many situations.

Resources/References

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However, organizations need to remain aware of the groundswell of new technologies to restrict access to digital media and the ramifications of circumventing or ignoring those limitations.

Third, consider establishing a planning and/or oversight committee to investigate and make targeted recommendations for meeting the requirements of the copyright provisions of the law. To overreact and impose unnecessary and overly severe restrictions would cause more problems than it would solve. Issues of academic freedom and oversight will naturally rise to the surface as restrictions are considered and implemented.

Finally, do whatever you can to increase campus awareness of the serious nature and the potential costs of copyright violations.

Conclusion

The TEACH Act is an important new tool for instructors using copyrighted material in distance learning. Its limitations and provisions can seem a daunting spawning ground for controversy and technological traps. It is important for IT departments to consider the ramifications of these new regulations, because certain provisions are aimed directly at them.

You may be asked some tough new questions by faculty and students using copyrighted materials or publishing new materials they want to protect. It seems that this would be a good time to review your policies, your procedures, and your tools to meet the challenge.

Elwin “Mick” McKellar is editor/analyst at Michigan Technological University and a member of the ACUTA Journal Editorial Review Board. Reach Mick at mckellar@mtu.edu.
Coming to Grips with Piracy on the University Network

by James R. Romeo

Everyone has seen the headlines and read the stories: At Michigan Tech, a college junior paid $15,000 to settle a suit with the Recording Industry Association of America (RIAA) after running a file-sharing program that let students trade thousands of songs.

The same thing happened to two students at Rensselaer Polytechnic Institute in Troy, New York, and another at Princeton University in Princeton, New Jersey.

Penn State in State College, Pennsylvania, suspended Internet access for 220 students caught downloading files from the Internet. Harvard University in Cambridge, Massachusetts, instituted a new policy: If, after a warning for downloading files illegally from the Internet, a student continues, they will remove the student’s access for one year.

Illegal downloading of digital content is going to be one of the deadly sins of campus life—if organizations like the RIAA and other constituents of digital content have their way.

Copyright piracy on peer-to-peer (P2P) networks like Kazaa and Morpheus is the aching tooth of the people who produce and distribute digital content, such as songs, movies, and software. Through their industry associations, they’re putting pressure not just on the IT managers but on the top brass of institutions of higher learning.

2.5 Billion Downloads Per Month

The most obvious reason the RIAA is cracking down with forte is money. Aggregate record sales have taken a hit in recent years, after growing in most years before piracy colored the digital landscape. From 2001 to 2002, the recording industry complained of a 33 percent drop in the sale of recorded music. The RIAA cites a figure of 23 percent who no longer buy music because they can download it for free. Other studies cite that 17 percent of U.S. adults with home computers admit they download music from the Internet. Millions more use CD burners to copy compact discs for their friends.

Some estimates put P2P networks as responsible for approximately 2.5 billion downloads per month. FastTrack Communications, which sells bandwidth for P2P applications to service providers, estimates 3 to 5 million computers make between 700 and 900 million files available for download at any given moment.

Where are many of those downloads taking place? You probably guessed it: colleges and universities.
A recent study showed that 16 percent of all the files available at any given moment on the FastTrack network are located at IP addresses managed by U.S. educational institutions. This means that educational institutions are offering between 111 and 142 million mostly infringing files to the universe of P2P users at any given time.

At Indiana University, 88 percent of residence hall networks were at one time consumed with P2P file trafficking. When Texas Christian University blocked Napster, it freed up 70 percent of its bandwidth.

"I've seen some students' personal collections of hundreds of songs," says Avi Rubin, associate professor of Computer Science and technical director of the Information Security Institute at Johns Hopkins University. "It's trivial for them to copy the songs from CDs onto their hard disk, and then they share them with friends using either file-sharing programs, Web servers, or just simply plugging in USB memory devices and manually transferring them. The situation is getting worse as more kids realize how easy this is."

Many of those pirating music on the Internet do it with a clean conscience. They see themselves as music promoters rather than infringing criminals. They contend the Internet has made music democratic. It has enabled many unknown artists rejected by top record companies to be heard by the mass public.

While many students don't realize the seriousness of the crime, college and university IT managers are quite concerned. "I feel the practice of piracy is very serious," says Bob Hartland, director of IT Servers and Networking Services at Baylor University in Waco, Texas. "Not only must the university protect their assets, they are now obligated to protect the assets of others."

**Academic Freedom?**

Hartland adds that efforts to thwart piracy are more difficult in a university environment. "This [piracy prevention] can be extremely difficult when dealing in an environment where 'academic freedom' is held in..."
Piracy will not be curtailed until individuals come to the realization that it is wrong. There lies, in my opinion, the largest obstacle.

—Bob Hartland
Baylor University

such high regard," he adds. "This mindset is often in direct contrast to a secure network. Although things are getting better in the area of tools available to help monitor systems, cultural indifference is still high. Piracy will not be curtailed until individuals come to the realization that it is wrong. There lies, in my opinion, the largest obstacle."

The whole topic has captured the attention of critics in the media who roll the problem out as a crisis that erodes the moral fabric of tomorrow's work force.

"Students are more likely to download authorized copies of sound recordings than business software programs," says Bob Kruger, the Business Software Alliance's vice president of enforcement. "They simply find the latest Nelly album more relevant to their lives than the latest CAD software release."

Kruger adds that the problem should be crushed in the college years, as the same mindset can easily carry over to their postcollegiate working years and really upset the terrain. "There is every reason to believe that attitudes and habits learned in school will carry over into the workplace after students graduate," says Kruger. "We want the following message to resonate: Downloading from the Internet is unethical and illegal. If students are downloading music and movies while they're in college, who's to say they won't download the software business applications when they enter the working world?"

What's an IT Manager to Do?

Plenty of good, bright kids think it's fun to download their favorite songs and share them with their peers.

What's an IT manager to do?

"The best thing that the university can do is educate students that this is illegal," emphasizes Rubin of Johns Hopkins. "Making them aware of potential consequences can act as a deterrent."

Rubin is fond of the approach that some are taking in making legitimate access to music more affordable. "I think Apple is taking steps in that direction with the iTunes store where songs are available for 99 cents," he says. The Apple concept seemed to be on the right track until their site was recently hacked and songs were found on some other sites for download.

"RIAA has been too powerful for too long, and they are faced with a technological problem for which there is no solution...They are going to lose big time," says Rubin. "In the meantime, they may manage to scare a few students and to make some trouble for others, but ultimately, they will lose. My best suggestion to them is to distribute the music themselves at lower prices on a fixed subscription rate, or a low per-song rate, as Apple has done. Otherwise, students will continue to steal them."

"Until the legal framework for addressing digital piracy incidents has been clarified, investments in technology to prevent such incidents may be mistimed," says John Voloudakis, chief technologist for Cap Gemini Ernst & Young's Higher Education Practice.

"In our opinion, institutions should work with legal counsel to establish a clear policy for dealing with piracy incidents, provide a mechanism for educating their constituents on the ramifications of piracy, and create a clear and consistent mechanism for enforcing their policies."

Deborah Gelch, director of IT at Lasell College in Newton, Massachusetts, concurs with keeping your pulse on what's happening in the industry regarding piracy. "Staying informed is your best option," Gelch explains. "What's going on in the industry? What are the latest court rulings? What are other schools doing? Are we making an effort to educate our network users on this issue?"

Others, such as Baylor University, are taking a definite proactive role with specific technology in place to thwart piracy efforts. "At Baylor we require the registration of any server
on the network before it can be opened to the Internet," says Hartland. "This has proven beneficial. Any service that needs to be opened to the outside world needs to be justified. At one point, our network was burdened with excessive downloads, peer-to-peer apps, and rogue DHCP servers, so we implemented a policy-based system developed by Enterasys. The system enables resource allocation based on individual users and their roles, which provides for improved security, bandwidth management, and access control. With this system in place, the university has already seen a more stable and reliable level of network performance, and we anticipate that the number of security events will continue to decrease."

Fast forward the problem 3 years: What will the piracy issue look like on the campuses of institutions of higher learning?

Avi Rubin isn't terribly optimistic. He feels it will continue as it is today. "More students will participate, and more content will be stolen. Movies will begin to be stolen as well as music," says Rubin. "The content providers will either figure out novel pricing mechanisms that are more affordable, or they will continue to lose revenue as piracy continues to be rampant."

Jim Romeo is a freelance writer who lives in Chesapeake, Virginia. Reach him at freelancewriting@yahoo.com.
Canadian Legislative and Regulatory Update

by Ian Angus and Lis Angus

Over the past decade, many Canadian telecom services have been deregulated, but customers are still directly affected by regulatory activity. This article outlines some of the regulatory issues that will affect universities, colleges, and other large telecom users in the coming year.

If Canada’s incumbent phone companies had their way, all of their business services would be totally deregulated now. But the Telecommunications Act requires the Canadian Radio-Television and Telecommunications Commission (CRTC) to “forbear from regulating” only when competition is strong enough to protect customers from monopoly power. For services and markets where competition is weak or nonexistent, the CRTC continues to restrict the ability of the former monopolies to do as they please.

This reduces the incumbent phone companies’ flexibility in certain areas, and also reduces the ability of customers to negotiate special deals and custom contracts with the telcos. The CRTC believes these restrictions are necessary to prevent incumbent telcos from using their market power to defeat new entrants.

Nonincumbent carriers—companies such as Allstream (formerly AT&T Canada), Sprint Canada, Group Telecom, and a growing number of carriers affiliated with electrical utilities—are virtually unregulated, which means they have more flexibility than the incumbents to negotiate special arrangements and prices. That advantage is somewhat offset by their smaller size and more limited service offerings.

For some years, the CRTC has not regulated wireless services, data communications, long distance, or private lines on routes where competition exists. The regulator still controls prices and service conditions for two main categories of services provided by companies such as Bell Canada, Telus, and Aliant: (1) local voice telephone service and auxiliary services, such as call waiting, some private lines, and Centrex; (2) some services and facilities provided to competitors.

That may seem like a small group of services, but it’s more than enough to produce a heavy regulatory agenda. Even the limited areas that the CRTC still monitors can have a big impact on the services customers can get and the prices they must pay.

Bundles and Special Contracts
With the arrival of competition, several of the incumbent phone companies began offering custom contracts to large customers who were willing to make multiyear commitments on a range of products and services.

Following complaints by competitors, the CRTC ruled that the telcos must get advance tariff approval for all special pricing bundles that include regulated services, such as local lines or Centrex. To get tariff approval, the telco must demonstrate to the CRTC that the bundle as a whole is priced above cost (so that it isn’t subsidized by monopoly
services) and that any regulated services in the bundle are priced at standard tariff rates.

Some customers, most notably Memorial University in St. John’s, Newfoundland, then discovered that the special deals they had been promised by the local phone company (Aliant, in Memorial’s case) didn’t have CRTC approval. After Aliant tried and failed to get CRTC approval for what amounted to a customer-specific rate for Centrex, Memorial reversed its decision to award the contract to Aliant and signed with Aliant’s competitor, Group Telecom (GT).

CRTC Telecom Public Notice 2003-4, issued April 10, requires all incumbent phone company contracts with business customers to include a clause stating that regulated services, and any bundles that include regulated services, can only be provided under tariffed rates and conditions, and that those tariffs “may be amended from time to time.”

The key point for customers is that CRTC-approved tariffs take precedence over any incumbent telco contract or proposal for local lines, trunks, or Centrex. If the rate you’re quoted hasn’t been approved yet, you can’t be sure that it will be—and even if it is approved, it might be changed in the future.

Who Can Use the Wire?

The Memorial University case described above also raised another issue: If you change telephone system suppliers, can the new supplier use the existing wiring?

If you currently own and maintain the wire and cable in your buildings, there is no problem; but, if the local phone company owns it—as is commonly the case with Centrex installa-

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tions—there may be problems. And there may be even bigger problems with using telco wire between buildings, because there are still no clear rules about it.

After GT won Memorial University’s Centrex contract, it complained to the CRTC that Aliant was refusing to lease it the existing wire, instead insisting that the university purchase it at “an excessive price.” At this writing, the CRTC has approved an interim lease rate of $1.00 per channel per month so that GT can get its service up and working, but key issues remain unresolved.

The Commission is likely to take some time to issue a general ruling on this. In the meantime, organizations that want to change phone-system suppliers should be sure that arrangements have been made to take over the wiring already in place or install new wiring.

Another wiring issue was decided in CRTC Telecom Decision 2003-45. It affects telephone service in any building that has one or more tenants, including apartment buildings, office buildings, and university residences.

The decision implements the principle of end-user choice—that tenants have the right to choose their phone-service providers and a landlord cannot prevent any local exchange carrier from providing service to a tenant—and the LEC can use the existing in-building wire to do so. Any carrier that installed in-building wire must allow competitors to use it without charge. A building owner who installed or bought the inside wire may charge a reasonable fee for maintenance and to recover capital costs.

This means that universities and colleges cannot require students in residences or other tenants to get their phone service from the institution or from an exclusive supplier. And, if any of your offices or classrooms are in buildings owned by someone else, this ruling confirms your right to deal with the local carrier of your choice.

The New Price Caps
In 1998, the CRTC switched from regulating the telcos’ rate of return to regulating through price caps. Broadly speaking, that meant that instead of controlling phone company profits, the regulator uses an inflation-based formula to limit price increases. If inflation was low, average prices would decline.

The formula used between 1998 and 2002 considered business and residential services as a single “basket” for price-cap purposes. The formula required prices to decline, and since residential rates were already low, the telcos implemented the price-cap formula by cutting business rates every year.

When new price-cap rules were adopted last year, the CRTC split residential and business services into separate baskets. It froze residential rates but allowed many business rates to rise. Ordinary business-line rates can now increase, on average, by the inflation rate, and there is no restriction on rate increases for Centrex.

This raises the very real possibility that the telcos will use the annual price-cap review process to increase business and Centrex rates, especially in rate bands where local service competition is weak (i.e., outside of major cities). Bear in mind that a contract offers no protection against such increases. CRTC-approved tariffs take precedence.

On the positive side, the new price-cap rules limit increases in the average rates for the basket that includes private lines, digital network access, and direct-dial numbers to inflation minus 3.5 percent. That means that some of these rates will fall if the inflation rate is below 3.5 percent.

The Competitive Landscape
Customers will also be affected, but more indirectly, by the attempts of various players to change the rules governing telecom in their own favor. Among the pending issues:

• Foreign ownership: Earlier this year, two parliamentary committees made diametrically opposed recommendations to the cabinet on the rules that restrict foreign investment in Canadian telecom carriers and cable TV companies. We don’t expect any government action on this until after a new prime minister takes office next year, and even then it’s unlikely to be a priority.

• Competitor discounts: Call-Net Enterprises, the parent of Sprint Canada, has asked the CRTC to require the incumbent telcos to lease local loops to competitors at 50 percent off the current wholesale price. While Call-Net makes a strong case that it needs to reduce costs, this proposal runs counter to the letter and spirit of past CRTC decisions. It’s unlikely to succeed.

• Local bundles: Rogers Communications wants the CRTC to prohibit the telcos from including local residential phone service in any bundle of services until strong competition exists. As Canada’s biggest cable company, Rogers is particularly worried that Bell Canada will offer local service in a bundle with Bell ExpressVu satellite TV service. This
also seems unlikely to be approved, since such a restriction would radically reduce the cablecos' incentive to enter the phone business.

Generally speaking, the CRTC's current focus is on removing or reducing specific barriers to local competition, not on large-scale changes to the rules. For business customers such as universities and colleges, those rules now mean

- There is intense competition for data services, private lines, and long-distance voice, with five or more credible contenders active in some cities. Smart managers can take advantage of this to negotiate very attractive pricing and terms.

- In a few cities (e.g., Montreal, Toronto, and Calgary) competitors now have close to 20 percent of the market for business voice services, but the CRTC does not believe that competition is strong enough to permit deregulation. We expect telco business local rates to remain regulated, at least through the current price-cap period, which ends in 2006.

- Local residential voice competition is so weak (less than 2 percent of the market, nationally) that the CRTC is unlikely to deregulate the telcos' offerings in the foreseeable future. This means that universities will be unable to get off-tariff deals for telco service in residences. If residential competition grows, alternative carriers may come up with attractive offers.

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Digital Millennium Copyright Act (DMCA): Although the DMCA raises issues such as free speech, privacy, encryption, and law enforcement, most of the controversy arises from the legality of copying digital entertainment and the consequences prescribed.

One very important question campuses face today is whether to respond to subpoena for user identity—what I call the Verizon-type subpoena. On the face of the law and D.C. Circuit Court ruling, it would appear that universities and colleges must respond. One point here, however, is jurisdiction. MIT has won the judge's order not to comply due to RIAA's failure to obtain the subpoena from the local district court. I think the RIAA's reasoning is it is more convenient for them to do it from D.C., and also they have a ruling in that court. They may also be concerned that another district/circuit might review the substance of the matter and find differently on the kind of points that Verizon raised, including constitutional questions of due process and privacy, and that conflict among circuits might ultimately bring the question to the Supreme Court someday.

Here at Cornell we asked legal counsel back in April for a ruling, and they said that if a proper subpoena appeared, they would comply with it even if it had jurisdictional "mistake."

Regarding the Family Educational Rights and Privacy Act (FERPA), it should not be in direct conflict with compliance, only with timing. FERPA requires that notice be given to the student, which means the campus cannot comply "expeditiously" as the law requires. Otherwise, it is today settled law that once these technicalities are taken care of, the names should be disclosed to the copyright holder.

From a policy perspective, we have sent out notices to new students, and will include this information on annual DMCA notices. The procedure for handling this is like any other subpoena; specifically, counsel's office takes care of it.

TEACH Act: This legislation does not do as much as people hoped. Generally, it brings some consistency between in-classroom and distributive learning models, so long as a number of conditions are met. Included in those conditions are secure passwords, session time, and restrictions on the kind of material—no movies, for example. Given these limitations, and the concern that the course website options may not be up to security standards, the ultimate question goes back to whether anyone wants to attempt to comply with its black-letter requirements or just go with fair use as a defense to any potential action. My guess is that campuses will do both, as appropriate and fitting for the situation and material in question.

One thing for sure, the TEACH Act is no panacea to the copyright concern in teaching and learning.

Privacy/Security regulations for Health Insurance Portability and Accountability Act (HIPAA) and Financial Services Modernization Act (FSMA): Much has been made of this matter, but it really boils down to the following: If all the materials in question (medical or financial records) are treated as student records, the privacy concern is taken care of. The problem is identifying the records that require this treatment.

Security regulations require the following:

1. Security program that includes a risk assessment
2. Security incident policy/procedure—anything that blocks problem traffic upon notice. The real issue ultimately will be in detection mechanisms as the "state of art" that lawyers will, in my opinion, eventually litigate.
3. Training for personnel
4. Education for the community of users

Once such a program is articulated and implemented, most campuses should consider themselves in compliance, and my observation is that most already have existing programs and policies—they just have to get all the information down on paper!

Tracy Mitrano is policy advisor and director of computing policy at Cornell University. Reach Tracy at tbm3@cornell.edu.
A magician, musician, and racquet-ball champion, Graham Spanier has often been described as an "unconventional" university president. He loves spending time with students, but most of his time is spent overseeing one of the nation's largest and most comprehensive universities, with 25,000 employees on 24 campuses, an annual budget of $2.5 billion, and a physical plant of 1,300 buildings.

Since he was appointed Penn State's 16th president in 1995, Dr. Spanier has been the guiding force behind several historic academic initiatives, including the creation of The Schreyer Honors College, the Penn State World Campus, and the School of Information Sciences and Technology.

Dr. Spanier's prior positions include chancellor of the University of Nebraska-Lincoln, provost and vice president for academic affairs at Oregon State University, and vice provost for undergraduate studies at the State University of New York at Stony Brook.

A national leader in higher education, Dr. Spanier served as chair of the Board of Directors of the National Association of State Universities and Land-Grant Colleges, is chair of the Big Ten Conference Council of Presidents/Chancellors, and is vice chair of the Worldwide Universities Network.

James S. Cross, Ph.D., is the vice provost of Information Technology at Michigan Technological University. A past president of ACUTA, Dr. Cross is currently serving as the chair of ACUTA's Publications Committee.

Interview

Graham Spanier, Ph.D.
President, Pennsylvania State University

ACUTA: According to a recent report released by the FTC, identity theft was the most common complaint reported by American consumers last year, accounting for more than 40 percent of all complaints to the FTC. What are the responsibilities of colleges and universities in this arena if we are to stem the rising tide of identity theft and other privacy abuses? How will the proposed legislation setting a national standard for the protection of personal information impact colleges and universities?

Spanier: Universities have become increasingly concerned about identity theft and privacy, although I don't believe it has been a special problem at universities. Nevertheless, we are increasingly vulnerable, as is the rest of our society. At Penn State, we have taken a number of steps to anticipate this growing concern. In addition to providing greater security on our networks, including higher standards of authentication, we are in the midst of a conversion that will eliminate the use of social security numbers for student identification. I do, however, caution against legislation that would be unduly burdensome for higher education.

ACUTA: A new generation of peer-to-peer (P2P) technologies such as Filetopia, eDonkey, and BitTorrent has upped the ante for those seeking to enforce the DMCA by hiding a user's identity and encrypting information about the types of files (e-mail, general Internet, and rich media traffic) from detection. What are the basic problems and challenges involved in policing and enforcing the DMCA for colleges and universities? What are their key responsibilities at this point based on the plethora of recent court rulings and litigation covered in the media and press?

Spanier: I doubt that the ultimate solution to the illegal use of P2P file sharing will be in purely technical solutions. As you point out, there is a new wave of technology evolving to thwart efforts at restricting piracy. This is occurring at the same time that yet other evolving technologies are being designed to discover the fingerprints of such copyright infringement. I support the deployment of technical solutions by universities to protect our networks from piracy, although
it goes without saying that such use must be narrowly tailored in ways that do not constrain academic freedom, restrict openness in the legal uses of our networks, impede fair use, or cross certain boundaries of privacy.

ACUTA: A recent poll of attitudes and perceptions on file sharing by the New Jersey Institute of Technology indicates that most people believe that file sharing is stealing but should not be restricted. Given this dichotomy, what are the best educational strategies and legislative approaches for minimizing illegal file sharing at colleges and universities? What advice do you offer to campus leaders struggling with the challenges and dilemmas of vulnerability assessment and being a good citizen?

Spanier: Ultimately, the solution must rely on education of our users, an appeal to the moral and ethical issues involved, and heightened enforcement. Many universities have developed excellent educational programs around the issue, and some university websites are excellent models. Such educational efforts will grow. The Committee on Higher Education and the Entertainment Industry, which I co-chair with the President of the Recording Industry Association of America, is providing such educational materials to colleges and universities this fall.

As to long-range solutions, I liken this to speeding. Most everyone will do it unless they fear a ticket or even receive a ticket. So lots of tickets will have to be issued before we see a lot of progress. Expect a substantially increased enforcement effort this coming academic year. I also see some merit in universities paying a fee to on-line providers on behalf of our students so that they can legally listen to or download music. Several universities will likely launch pilot studies of this approach this coming year in cooperation with several music providers.

ACUTA: When colleges and universities filter content, limit student access, or take other actions to prevent DMCA violations, some say they violate students' academic freedom and the actions amount to censorship. What advice do you offer to campus leaders struggling with this dilemma? What have been the key issues raised at Penn State in this area?

Spanier: Of course we must protect academic freedom and avoid censorship. But we must also recognize that absolutes usually don't stand constitutional tests. If there were an absolute right to privacy, there would be no security cameras in retail stores. If there were an absolute right to freedom of expression, you could yell "fire" in a movie theater. There is no absolute right to hide the contents of your personal belongings, or else airport screeners wouldn't be able to look inside your luggage.

Similarly, there is no absolute right to pirate intellectual property. My advice to campus executives is to take responsibility and do the right thing—thoughtfully, legally, and defensibly. Don't hide behind false rights. "See no evil, hear no evil, and speak no evil" doesn't cut it anymore. If we don't fix this, Congress will, and we might not like the way they go about it.

ACUTA: Various public forums and hearings continue to debate the state of American higher education and what we are getting for our money in light of recent major tuition increases announced by public institutions. What are your views on how we should hold higher education institutions accountable for how well they do their job? Are more federal controls and standardized federal tests the answer? What advice do you offer to other campus leaders struggling with this issue?

Spanier: Few American institutions are as transparently accountable as universities. I am a great believer in internally imposed approaches to foster improvement. But I do not support the calls for increased regulation or accountability. We turn ourselves inside out giving exams; accrediting our departments, schools, and colleges; evaluating faculty; benchmarking ourselves in academic and business services; looking for ways to cut costs; and ranking ourselves in every category we can dream up. More federal controls and standardized federal tests are not the answer. They represent unfunded mandates at best and threats to the quality of our institutions at their worst.

There are good reasons why American higher education is the envy the world over. I just can't see how more externally-imposed accountability will help.

ACUTA: Although great strides are being made, information technology security continues to be a thorny area for campus leaders. What policy issues at Penn State have been affected by
vulnerability issues, the war on terrorism, U.S. Patriot Act, and homeland security mandates? As a public university, how might higher education balance the dilemmas and challenges of vulnerability while ensuring the academy remains a forum of expression, debate, and learning?

Spanier: None of our policies have been affected in any profound ways, as far as I know. Rather, what we have seen is an increase in compliance and monitoring measures (such as SEVIS), increased challenges with visas, a new layer of challenges for our student affairs and foreign student advisor professionals, and a greater level of interaction with government agencies (e.g., FBI), especially in top research universities where much of the nation’s most advanced technical research occurs. If we handle it carefully and professionally, I don’t believe that any of this needs to affect the ability of the academy to remain a forum for expression, learning, and debate.

ACUTA: Affordable health care access continues to be a difficult issue for many in this country with the decline of the economy and budget cutbacks. Public university medical centers have historically played a major role in ensuring access to the underserved. What are the key issues, challenges, and dilemmas in supporting outreach and telemedicine programs? What have been the major challenges encountered in the Penn State service area? What advice do you offer to campus and community leaders?

Spanier: While academic health centers account for a very small portion of the hospitals in the country, we provide a major share of unreimbursed health care. Moreover, many academic health centers are in fiscal jeopardy because of the collective burdens of the federal Balanced Budget Act of 1997, the evolution of managed care, declining reimbursements, the migration of the most expensive and complex procedures to our hospitals, skyrocketing medical malpractice costs, the super-inflationary costs of pharmaceuticals, the costs of the most advanced equipment, and the competitive nature of medical research and clinical advances. In such a climate, one wonders if we can afford our historic commitment to outreach and to reaching out to underserved areas.

In Pennsylvania, to cite but one example, the state has made dramatic cuts in its support of our poison control centers. Our desire to reach the underserved remains great, but our ability to do so is clearly being eroded. Telemedicine is an important part of the solution, and we need to make our case for funding it.

ACUTA: Over the last 30 years, the higher-education community and society have witnessed significant gains in leveraging information technology. How has your campus approached crafting information technology strategy to guide it in creating value and boosting institutional success? What new and innovative endeavors has Penn State implemented that you are most proud of? What key business processes have been significantly changed?

Spanier: Most everything has changed, and there will be further evolution. At Penn State, we have embraced e-commerce in our business services. We do virtually all basic student services online, from registration to drop/add to degree audits to modeling grade point averages. Many of our alumni services are provided electronically. More than 100,000 alumni, friends, and members of the news media receive our daily Newswire with the latest university news.

At Penn State, our central file servers process more than 4 million e-mail messages each day. I estimate that I conduct well over 90 percent of my administrative business electronically now, with paper transactions being very rare.

I’m especially proud of the Penn State World Campus, our online distance-education program, which already enrolls about 10,000 students. We launched the successful School of Information Sciences and Technology with more than 2,000 students enrolled in undergraduate and graduate programs. Our eLion student information system is one of the best in the country. And we have a grants and contracts management system that serves our researchers and business officers well.

ACUTA expresses our appreciation to Dr. Spanier for taking time out of his very busy schedule to answer these questions and share some insight into issues common to most campuses.

III
Universal Service has evolved from a corporate strategy for industry dominance to a regulatory endeavor to perpetuate communications technology services throughout the United States.

When universal service is mentioned, many simply think of the surcharge that is included on telephone bills or the E-rate program to fund communication technology for schools and libraries. However, the principal attributes of the universal service program remain a mystery to many communications technology professionals. Why should unraveling this mystery be important to us? If for no other reason, the Universal Service Fund (USF) represents significant dollar amounts: Today, the USF is $6.3 billion (including $2 billion for E-rate) and increasing, and discounts of 20 to 90 percent on a variety of telecommunications services and equipment for schools and libraries will provide up to $2.25 billion per year in support of telecommunications for schools and libraries. We all contribute; shouldn’t we know what this is all about—and provide input on how the program can be sustained without unduly taxing our communications technology financial resources?

Origin of “Universal Service”

Understanding the history and context of universal service requires that we look back to 1908, when the phrase, if not the actualization, of universal service was first introduced.

America was in the latter days of the second Industrial Revolution. Society had already experienced a great leap in communications technology during this period with the invention of the telegraph and implementation of service around the country. In the 1870s, the invention of the telephone and its first commercial use proved to be an even greater leap in communications technology, at a very opportune time in history.

From the late 1800s into the early 1900s, American cities had begun to expand greatly, particularly in the growth of urban centers. The telephone had begun to take its place as an important communications medium for business or pleasure.

Responding to the rapidly increasing demand for telephone service, a multitude of independent telephone companies emerged. Often, several of these independents served different areas of the same community, in addition to the already-imposing AT&T. Not only did the great increase in telephone penetration prove the value of, and demand for, the tele-
phone, the growth exposed an increasing problem as well. Telephone customers of the various companies could only speak to others on their provider's network, not to other providers' customers. Although the solution of interconnection was obvious, the strategy to achieve it was not. Already a telecommunications giant, AT&T, parent company of The Bell System, dwarfed all of the independent telephone companies combined in the total number of lines in service. In a move which would later underscore its interconnect strategy, as a subsidiary of American Bell Telephone Company (The Bell System) originally, it had bought out that company to become its parent.

In 1907, Theodore “Ted” Vail, AT&T President from 1885–1887, returned to the helm of the telecommunications company (Figure 1). According to AT&T historians, Vail “developed the philosophy, strategy, and structure that would guide AT&T for years to come.” Vail’s overall concept and strategy to provide service, introduced as AT&T’s motto in 1908, was based on two factors—One Policy and One System—to achieve universal service in America (Figure 2). Vail believed one entity, establishing one network and one set of standards and policies, provided the best opportunity for his company to successfully implement a universal telecommunications system in America.

Monopolization to Achieve Universal Service

To execute his strategy, Vail acquired AT&T’s competitors by refusing to interconnect if they wouldn’t sell out. This prompted complaints by independents and ultimately antitrust action by the federal government. The result was the 1913 Kingsbury Commitment, which established AT&T as a legal monopoly. It also required AT&T to sell its Western Union subsidiary, obtain government approval for future buyouts, and interconnect with its competitors. Although his original strategy provided direct benefits to the company and its stockholders, the granting of legal monopoly status to AT&T indicated the government determined it would also have benefits for the public. In 1921, the Willis-Graham Act confirmed the best-interest nature of a telephone monopoly, as well as that of monopolies in certain other industries.

With the public-interest benefits in mind, the federal government revised Vail’s concept of universal service. Viewing telephone services as vital for the nation’s economic and military strength, the government combined this with the concept of making affordable telephone service available to everyone and promoted a modified concept of universal service. From surcharges on telephone bills, a fund was established to offset the high cost to providers of installing and maintaining telephone service in rural areas. Many states expressed interest in such a program to fuel similar state-sponsored telecom endeavors.

The Communications Act of 1934 to the Telecommunications Act of 1996

With the telecommunications industry regulated between the 1920s and early 1930s by a myriad of laws and federal agencies, Congress concluded that industry oversight should be maintained primarily by one set of laws and one federal agency. Thus, the Communications Act of 1934 was signed into law. The Act consolidated the numerous laws relating to telecommunications, including those pertaining to universal service, and established the Federal Communications Commission (FCC). This Act would be the primary regulatory guide for universal service for the next 60 years.

[Figure 2: In this advertisement from 1908 AT&T used the motto “One Policy, One System, Universal Service.” (Property of AT&T Corp.)]
Although there was no industry-related legislative or regulatory activity comparable to the 1934 Communications Act until passage of the Telecom Act of 1996, there was some activity to note. As mentioned, the federal government considered the early universal service concept as very important from a military standpoint in maintaining the communications infrastructure of the United States.

After World War II and during the Korean Conflict era (1945–1953), the term universal service was used to promote programs related to providing affordable telephone service for military veterans, as they attempted to re-establish normal lifestyles following military service.

During the 1960s, access-charge subsidization of universal service emerged.

During the 1970s, basic telephone service became the definition for what universal service would subsidize in high-cost areas.

In 1984, the Universal Service Preservation Act created clearer distinctions for high-cost subsidization, particularly regarding fixed allocation of cost, and established subsidization of low-income customers (Linkup/Lifeline programs). However, in ensuing years modifications resulted in the high-cost funding and distribution mechanism becoming somewhat inequitable and discriminatory.

**Telecommunications Act of 1996 and Universal Service**

By the early to mid-1990s, it had become apparent that the 60-year-old Communications Act of 1934 required substantial updating, considering the number of technological advances that had taken place as well as the desire for a more competitive environment in the telecommunications industry. The result was the passage of the Telecommunications Act of 1996, which overhauled much of the regulatory environment of communications technology, including universal service. The Telecom Act’s version of universal service is what communications technology professionals are more familiar with today.

The Telecom Act updated universal service by establishing principles on which policies should be based as well as considerations which were to be used in determining which services should be included. The Act redefined universal service as a set of communications technology services which, via FCC periodic review, would evolve over time, given advances in technology. The Telecom Act directed the FCC to convene a Federal-State Joint Board to recommend changes to universal service, define the services which should be included, and identify the type of providers who could receive cost recovery or subsidization funds when providing services in high-cost areas as well as those carrier types which would have to contribute to the USF. The FCC was also charged with reviewing these recommendations and implementing those they approved.

The Federal-State Board and the FCC developed an initial list of basic services, based on the following Telecom Act provisions: that they be essential to education, public health, or public safety; in use by a substantial majority of residential users; actively deployed by carriers; and consistent with public interest, convenience, and necessity. The services included:

- In/out voice-grade access to the public switched network
• DTMF signaling or functional equivalent
• Single-party service
• Access to 911/E911 service
• Access to operator/directory assistance services
• Access to interexchange service
• Access to toll-limiting service for qualifying low-income customers

To assist in revising the funding mechanism for universal service, the FCC adopted rules for access-charge reform and for a review of price-cap rules for local exchange carriers (LECs). This action responded to the Telecom Act mandate to change universal service subsidization and contributions from *implicit* to *explicit*.

The contribution formula was also converted to a percentage of interstate revenues (later, to international revenue as well). The FCC had given permission for the carriers to recover their USF contributions from end users through their interstate rate structures, and most did so. However, as the access charge reform plan took effect, carriers determined they would directly “pass-through” their universal service contribution fees to end users via a separate surcharge on customers’ telephone bills.

**Current Activities and the Future of Universal Service**

In 2000, the FCC began the mandated process of reviewing the list of services currently under the universal service umbrella. In addition to public comment, the Federal-State Joint Board responded in July 2002, recommending no additions or deletions of services. On July 10, 2003 the FCC adopted the Joint Board’s recommendation to retain the existing list of services under Universal Service.

In December 2002, the FCC adopted a number of interim changes to the Universal Service Program as a stop-gap measure and issued a Further Notice of Proposed Rulemaking to consider permanent changes. The interim changes, effective April 1, 2003, included a change in carrier contribution methodology due to diminishing interstate/international long-distance revenues. The change allowed carriers to base their USF contributions on projected collected revenues rather than historical, gross-billed revenues. As a result of numerous complaints of carriers marking-up the USF pass-through fees to customers, the FCC prohibited the action, allowing a minimal administrative fee. In addition, the FCC adjusted the formula used for wireless carrier contributions to the USF from 15 to 28.5 percent.

Regarding the permanent changes, in the December 2002 document the FCC requested comment on the long-term viability of the USF, as well as on three connection-based contribution methodologies. They followed up in late February 2003 with distribution of an FCC staff study. Shortly after, both the FCC and Congress floated a suggestion to include intrastate long-distance revenues in the formula for USF contributions.

On July 10, 2003, the FCC adopted the Joint Board’s recommendation to retain the existing list of services.

The FCC is currently considering a number of other actions concerning universal service, pertaining to support and contribution issues as well as funding and operational issues concerning the E-rate program. There are also discussions regarding the use of the USF to subsidize expansion of information-service connectivity and to promote competition, which could potentially require congressional intervention, depending on the services suggested and how they do or don’t fit the legislatively produced definitions.

**Conclusion**

Universal service in the United States has had an interesting and involved history, thriving through the many major changes in the legislative and regulatory activities of the communications technology industry. Although discussions often involve concern about specific funding mechanisms to sustain the USF and the types of services to be covered by the fund in the future, history, and current usage suggest the long-term viability of the universal service program.

Randal J. Hayes is voice services manager at the University of Northern Iowa. He is also the current chair of ACUTA’s Legislative and Regulatory Affairs Committee. Reach Randy at randal.hayes@uni.edu.
Wireless Local Number Portability

by Kevin DiLallo

If all goes well—and that’s a big “if”—wireless local number portability (LNP) will finally become a reality in the 100 largest markets November 24. Wireless LNP, the ability to keep your telephone number when switching from a wireline LEC to a wireless carrier or between wireless carriers, could be the best thing to happen to wireless subscribers since the change from analog to digital.

Competition among wireless carriers is fairly robust, but it has been limited by one factor above all others: Subscribers are reluctant to change carriers because doing so would mean changing their phone numbers. When LNP becomes a reality, enough customer churn will be generated to drive wireless rates through the floor and raise the level of competition in the industry to heights not seen before.

But some issues remain unresolved. For example, the FCC’s rules require carriers to port numbers only within a “rate center,” which is a geographic area defined by state PUCs for local calling. The problem arises because wireless carriers serve a much larger geographic area with a single switch, and therefore have switches in only one of every eight LEC rate centers. LECs have argued that they are not required to port numbers to wireless carriers for any customer located in a LEC rate center other than the one in which the wireless carrier’s switch is located. According to the wireless industry, the practical result of this position will be to deprive some 90 percent of wireline subscribers the opportunity to port their wireline numbers to a wireless carrier.

Other issues revolve around

- the disparity between wireless and wireline porting intervals and the effect that this will have on inter-modal portability and competition generally
- the potential unavailability of E911 callback during the interval between making an inter-modal porting request and completion of the port
- the LECs’ intention to impose intraLAIA toll charges on calls to any number that has been ported from a LEC to a wireless carrier whose switch is outside the subscriber’s wireline rate center
- whether rural and other wireless providers outside the 100 largest metropolitan statistical areas will be able to support nationwide roaming following implementation of wireless LNP. Then there is also the issue of the cost of wireless LNP, and carriers’ ability to recover that cost—an estimated $900 million initially and $500 million per year to maintain portability.

The implications are significant for colleges and universities.

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Do You Take This Vendor...

With so many new variables in the business world and unexpected turns in Fortune 100 companies, one of the most pressing needs these days is the ability to successfully manage our relationship with vendors. One way to consider this relationship management concept is to note the similarities between relating to vendor partners and managing key personal relationships. Think how important timely, direct communication in the home is for each of us, and how many of the same principles apply to a successful vendor/university partnership. If there is disconnect in communication or results fall short of expectations, the relationship can quickly turn defensive, and we may find ourselves wondering if this is the same person we've been dealing with all along.

Consider the following common-sense suggestions for maintaining mutually satisfactory relations between your campus and the vendors who serve it.

Courtship: “Medium-sized, Prestigious University Looking to Meet Reliable Vendor with ….”

Most initial vendor contacts begin with a mutual need: A campus has a need, and a vendor has a product or service to sell. Courtship begins cautiously as the campus explores what products are available and which company or product might be a good fit. It may be important to determine fairly quickly whether a particular vendor might be the best partner on a key strategic project, and it is equally important to be up front with the vendor regarding what the college can afford, how much ancillary support you can realistically provide, and how long an agreement might take to complete.

Most vendors realize that they have an opportunity to provide services for the long term and that they need to keep their promises for the length of the contract if they are to remain in good standing. As professionals and representatives of our colleges and universities, we should establish high personal standards for ethics as well as respect and courtesy, and make it clear that we expect the same from our partners. If we beat our providers bloody and exhausted, we cannot then declare that process “successful negotiation.” Ask the key questions, and confirm that the goods you are hoping to get are attainable and affordable; but, as in any healthy courtship, don’t focus exclusively on “what’s in it for me.”

From a vendor’s perspective, Rick Cunningham, vice president of Strategic Markets at PaeTec Communications, says, “The evaluation and negotiation process can provide an indication of how the relationship may proceed over the life of the project or contract. Both parties are usually seeking a long-term relationship and should feel good about their contributions. As the project moves….”
Having a clear understanding of expectations and how they will be met will provide a road map to success.

from the negotiation stage, joint planning and active participation in the implementation process are key steps in building and strengthening the relationship. Once the decision has been made to move forward with the chosen vendor, all the cards should be out on the table. Having a clear understanding of expectations and how they will be met will provide a road map to success.

"The successful vendor probably has a good understanding of the customer’s environment as well as potential strengths and weaknesses," Cunningham continues. "Honest, open planning discussions will save both time and resources for both parties."

Cunningham further suggests that the institution should do as much as possible to learn about potential vendor partners. "Institutions should always be sure that they have done their homework and checked all references for assurance that the vendor fully understands the environment of the institution and has successfully completed similar projects."

Any vendor selected should provide excellent quality of service, but be prepared if either the university or the vendor has overlooked something that could now be considered a surprise. (That might include Chapter 11 for some commodity Internet providers, as an example). Be willing to work together to remedy small problems without assigning blame, bearing in mind that what might appear to be a vendor shortfall today may actually be an oversight on the university’s part that needs vendor help tomorrow.

**Commitment: “Do You Promise to (Your Agreement Here) ... for the Length of the Contract, or Until...”**

Once an agreement is on the table and the relationship begins to look serious, make certain that you can keep your commitments. In the most successful projects, participation by the institution includes the assignment of a project manager to head up the effort with executive support and establish measurable goals early in the implementation process.

Clearly, you want to be honest, and maybe even under-promise a bit, with what you will deliver as part of the vendor agreement, while verifying through regular communication what the vendor is actually capable of delivering. Few of us want to be the beta test for a new product.

Resolve any uncertainties, and don’t be satisfied with ambiguity. Anything can be written into a performance contract, and critical factors should be spelled out to prevent any major misunderstandings later on.

You should also be willing at least to listen to any vendor requests for changes. Something as simple as a university commitment to act as a reference account and an agreed-upon frequency to provide a testimonial should be understood, clearly, both ways. If you are pleased with the vendor’s work on campus, it should be relatively easy to say a few words when other schools inquire. On the other hand, you can’t afford to provide guided tours every other day of the week to prospects. Discuss the details before you say “I do.”

Many times, a vendor may have a suggestion based upon previous experience, Cunningham offers, that may be different from what you originally anticipated but will actually result in an improvement. In a real partnership, the parties are able to have a productive dialogue.

It also is a good idea to have something written into any agreement that covers “newer” contingencies, such as Chapter 11 and industry mergers. A simple example might be "Who owns the software/code if the company disappears?"

**Conflict: “But I Thought When You Asked Me to Take Out the Trash, I Had a Few Weeks to Work With...”**

As we know from life day-to-day and from relationships at home, not everything is going to run perfectly 100 percent of the time. This is where it becomes beneficial to have had a
positive working relationship with the vendor that can offset a potential disaster. If the agreement was crafted on a “take no prisoners” negotiating strategy, then don’t be surprised when you are let down. The vendor may be able to help your university but, realistically, is just as likely to ask “What’s in it for us?” While recent economic events have made it tougher for vendors in general to deliver stable, reliable service, if you have done your work and have a quality vendor in this partnership, he should be treated with respect and professional courtesy. Should something like Chapter 11 surface with your service provider, then there may be a chance to creatively work through an interim solution with a minimal amount of pain for everyone.

One example: Years ago, we had installed a relatively new technology on campus and launched a new voicemail service for all students, faculty, and staff. (We even charged for it back in 1990.) This was a new relationship with a previously unknown, untested vendor that grew from an excellent base of good communication with mutual respect. It was new territory for us and for the vendor. Interestingly, the embedded software that created the time stamp for voice messages had never been properly tested to recognize a leap year. Sure enough, when the first instance of February 29 arrived, the voicemail system, perplexed about the date, simply decided to shut down and await further instructions. The vendor discovered this fact a few time zones ahead of us, and managed to call us direct—on a Sunday—prior to the outage. Why? We got the warning ahead of time because we had a relationship with the vendor, along with the standard contract. They just couldn’t comprehend letting us down.

Some things are unavoidable, but it doesn’t hurt to work with your vendor amicably rather than in a combative or adversarial way.

Summary

There really are no shortcuts to most things that are worthwhile. If you expect to achieve success from any partnership, it has to involve positive communication and professional respect. Some disappointments are to be expected. What can be controlled is how we react to the unanticipated problems and how we deal with people. Good vendor management involves the right analysis and precautions but also the right relationship skills—the same ones that are required for survival at home. If you strive to be the kind of individual who gets things done while still treating people the right way, then your vendor partnership will be one of regular renewal and happy anniversaries!

Bill Brichta can be reached at wab6@lehigh.edu.
ACUTA Legislative and Regulatory Issues Matrix

Sometimes you want to know—briefly—what's going on in Washington that might have an impact on your campus. This spring, ACUTA devised a Legislative/Regulatory Issues Matrix, a document that provides a brief description of the major issues, the status of each, ACUTA's position or action taken, the date of the last update, a link to ACUTA's Legislative-Regulatory Newsletter, and a name within ACUTA to contact for more information.

The URL for the matrix is http://www.acuta.org/Relation/downloadFile.cfm?DocNum=767. This document is updated quarterly.
George Washington University

The George Washington University has developed an enterprise portal solution to fulfill the varied needs of students, faculty, alumni, staff, and friends. The ability to integrate e-mail, online student registration, courseware, enterprise data, and other existing resources into a comprehensive single-sign-on portal has allowed for greater application interoperability, extended usage, and enhanced university-wide communication.

In late 1998, The George Washington University (GW) started conceptualizing innovative ways to use Web technologies to replicate its sense of community in the online world and to enable more agile communication within its constituencies. While the first drafts of a project definition for building an interactive GW online community were being discussed, numerous companies started approaching GW departments to propose “prefabricated” and packaged portal solutions. Many of the propositions were quite impressive in functionality, and some even had free-marketing money incentives. But these solutions were limited by the needs that were common to all universities and were built for either students or alumni.

GW decided to build its own portal and named it GWeb. The Interactive Multimedia Application Groups (IMAG), a team within the Administrative Applications department of GW’s Information Systems and Services, spearheaded the development of GWeb. Initial features were based on student, staff, faculty, and alumni interests, focus groups, GW administrative guidance, including the Web Advisory Committee of GW’s Information Technology Advisory Council and the Technology Committee of GW’s Board of Trustees. GWeb went officially live in September 2001 after a “test drive” period that lasted eight months, as we collected and responded to user feedback to improve services and features.

Developing the university portal independently allowed GW to focus on its specific needs and opportunities distinctive to GW. While the challenge of building a portal may have been greater than using a generic product, the autonomy and independence generated allowed GW to provide solutions responsive to the community’s needs and values.

Developing the portal required three predominant types of activities occurring almost concurrently: business development, technical development, and design and usability.

- Business development

It was necessary to build relationships throughout the university and beyond to make GWeb happen. Two types of relationships were required. First, relationships needed to be established within the university to secure commitment to GWeb. Second, relationships with content providers were required to enable GW to provide services such as news and movie listings. GW established a partnership with the Washington Post that became a win-win solution. While integrating washingtonpost.com with the portal, the Post developed the standards for content...
distributions, which will later be used with other washingtonpost.com customers.

- Technical Development
GW’s in-house knowledge of the systems that were to be integrated was one of the reasons for the successful design of the portal solution. IMAG’s ability to easily reach for knowledge and expertise within the Administrative Application division made the links between the portal, the administrative data, and the systems relatively simple. Scalability issues were addressed carefully to ensure GWeb’s ability to handle a growing user base and an expanded service offering. Furthermore, the university’s high standard of and commitment to security demanded particular attention to preserve the integrity of university data.

- Design and Usability
Crucial to the success and adoption of GWeb was making it easy to use and understandable for the user. Early on, mock-ups were created and their practicability examined. Special efforts went into creating an environment that would be friendly, inviting, and intuitive. Focus groups were used to assess ease of use, intended audience, and future development needs. The personalization aspect of GWeb allowed for each user to see a specific page made especially for them. Whether the feature being used is a particular discussion group, a favorite news section, or weather reports from a hometown region, each user can easily personalize GWeb to his or her own needs and preferences. Additionally, applications such as e-mail, instant messaging, and the courseware application are made accessible without additional logins.

Back in 1998, the term portal was loosely applied to search engines such as Yahoo, which were only then starting to introduce the customization and personalization aspects. The idea of creating a central forum for all university constituencies was original then and continues to be at the forefront today.

Portals can be divided into Horizontal (Mega Portals) and Vertical (Vortals) portals.1 Horizontal portals do not know the user; they require the user to provide input to personalize the proposed services and information. Horizontal portals usually include features such as shopping, weather, news, search engines, and horoscopes and allow the personalization of this content. Vertical portals deliver organization-specific information in a user-centric way; the system knows the user, and therefore presents information and applications that are relevant. The GWeb portal combines these two different portal concepts into a diagonal portal, where the customization engine proposes content based on both the user’s role at the university and his or her individual preferences. The GWeb portal brings a mix of academic, collaborative, informative, and personal services to encourage use and promote community interaction. Services of personal nature, such as weather from around the globe, movie show time listings, comics, and classified ads provide resources that would otherwise require users to search elsewhere for these features. The aggregation of the GWeb services increased usage and the effectiveness of communication between the university and its constituencies.

The success of the portal has served as a catalyst for the development of a variety of online services as well as a rethinking of the university’s Web presence as a whole. Within the past year, news and event management and syndication, employment vacancy announcements, the university directory, and training and event management and registration have all been developed on the portal platform.

The university has begun a phased process of integrating the portal with the main university website in order to make its Web presence a vehicle for the delivery of primary services and information to a hierarchy of internal and external users. This process will continue to drive the development of services on the portal.

Measuring Success
Both the quality and the performance of the GWeb portal have been regularly measured in a number of ways. From early on, IMAG identified three primary areas of measurement as having the most relevance to the university: growth in usage, growth in applications and services offered, and number of systems integrated through the single sign-on. Other measurements, while useful, would not have told the group whether or not the portal was fulfilling its mission. Usage of the portal has grown to an average of 70 percent among faculty, staff, and students—particularly students,
whose usage is nearly 90 percent. A corollary to usage has been the growth in application development on the portal. In the past year, more than ten major applications have been developed and deployed on the portal, including the university directories, a short course registration system, news and event management and syndication, and a job vacancy announcement and application program. The number of university departments making use of portal services and requesting application development has also kept pace with the increase in usage. More than 200 university departments and organizations regularly make use of GWeb's news and event content management system to reach out to their constituent communities.

While growth in portal development has been rapid, another measure of performance is integration of the portal sign-on with other systems utilized by the university. GWeb is currently integrated with eight different systems: the Prometheus course management system, Remedy issue tracking system, Netg's computer-based training, GWmail Web-based e-mail, Bantu's instant messenger, as well as the Enterprise Accounting System, Telecommunication billing, and the library catalog.

Low Cost, High Quality

The costs of developing the portal were relatively low as a wealth of experience already existed in the university's Information Systems and Services department. A full-time staff of designers and developers allocated effort to the project, obviating the need for contractors or additional staff. Promotional costs to increase awareness of the portal have also remained relatively low, as the IMAG group has sought to leverage existing university institutions and events. New student orientation, university periodicals, and an IMAG-sponsored portal user conference have all served as means to promote the adoption of GWeb.

The benefits of developing the portal internally can be grouped into two basic categories: those that are quantifiable and those that are not. One of the most important unquantifiable aspects of the portal is the facility of development on a native system. Written in Cold Fusion with ties to both the university's LDAP server and its enterprise database, the portal architecture easily accommodates growth in services/application. In addition, as the development group belongs to the university, support and modification of existing portal applications require no additional external cost.

Another benefit that is not easily quantified, but invaluable nonetheless, is the data quality improvements that have been realized by the increased exposure of that data to portal users. An exemplary case of this is the online directory. Prior to the development and deployment of the online directory, users could view and maintain their own contact information within the database via secure online forms. Though reminders were sent out regularly encouraging employees to review, verify, and correct, if necessary, their contact information, motivation to do so remained low. With the advent of the online directory and its adoption by the university community, the motivation to have correct contact information grew dramatically. The responsibility for maintaining the integrity of the data has been given to a staff member, and directory information is now updated daily.
While there is no easy way of quantifying the benefits of data quality or ease of development, some benefits can, after all, be represented numerically. Reduced staff hours allocated to a given task or service and reduced printing costs are two tangible benefits derived by transitioning communication and services to the portal.

Risks and Outcomes

The portal faced two primary risks: the failure of users to adopt it and the failure to successfully integrate with enterprise data and systems. As was previously stated, IMAG utilized focus groups, surveys, and marketing to ensure that user adoption was smooth. Integration with other systems was aided by the close relationship that already existed between technical departments under the Administrative Applications umbrella, making the links between the portal, the administrative data, and the systems relatively simple.

Customer satisfaction can be measured in a variety of ways, one of which is increased usage of the portal.

Statistics gathered by IMAG show a consistent increase in the number of users accessing GWeb. Currently there are more than 21,000 students, faculty, staff, and alumni using the portal actively. Student usage is particularly notable at nearly 90 percent of all students using the portal. Each month, GWeb serves more than 35 million page requests.

Additionally, a gap survey conducted through the portal to measure the relative importance of the university’s information technology services and the effectiveness of those services in fulfilling their expected role saw the GWeb portal perform well above expectations for students and staff alike.

More and more IMAG is being approached by departments throughout the university to develop applications on the portal. This, perhaps more than any statistic, speaks to the confidence and satisfaction the GW community feels toward GWeb.

Francesco deLeo is director of the Interactive Multimedia Application Group at The George Washington University. Reach him at fdl@gwu.edu.

Publish Your Story in the ACUTA Journal

Does your department or your campus have a story to tell? Have you completed a project, installed a new system, solved an old problem, come through a crisis, or formulated a solution to a situation you thought would never go away?

If so, your peers—our readers—want to hear from you!

Some Benefits of Writing

Writing for the ACUTA Journal provides excellent visibility for your campus or your department. When you share the details of that complex project you just completed or a new revenue-generating idea, you give some well-deserved recognition to your staff, reveal your personal leadership skills, and, at the same time, give other members some ideas that may prove useful on their own campus.

We also pay a $50 honorarium to our members whose articles are published. (It's not a lot, but your mother will be so proud!)

“But I Can’t Write!”

Everyone can tell a story. Some have a greater ability to polish and present it than others. That’s where ACUTA staff comes in. If you’ve got the experience, we can help you find the right words to tell about it. We work with would-be authors all the time! Whether you need just a little editing to finish the piece or someone to tell your story for you, we are here to help.

Here’s All You Do

1. Read the articles in this or another recent Journal to get familiar with the style and depth of content.
2. Submit your idea for a story to Pat Scott, ACUTA Communications Manager, via e-mail (pscott@acuta.org), phone (859/278-3338, ext. 221) or fax (859/278-3268).
3. With or without help from staff or a freelance writer, put your story together and submit it about 4 months prior to the mail date of the issue you’d like to be in.
4. Pat will review it and send it to the Editorial Review Board for their comments, then get back to you with any questions or suggestions.
5. Wait to see your work in print!

Stories in the journal are typically 1,500 to 2,800 words in length. Graphics, photos, and illustrations are a nice addition, but not usually essential.

Call today—You could be a published author, too!
Linda Bogden-Stubbs

At the 32nd Annual Conference in July, Linda Bogden-Stubbs joined an elite group of people whose contributions to ACUTA and communications technology in higher education have earned them ACUTA's most prestigious individual honor. Each year the Bill D. Morris Award is presented in memory of the former ACUTA president who set high standards for dedication, vision, professionalism, and leadership.

"When I think of a person who takes a supportive role, I am reminded of a baby grand piano," said President Jeanne Jansenius in announcing Linda's name. "It is strong and steady, and it can be counted on for support. It stays in tune with what is going on and is willing to pipe up when a point needs to be noted, but most of the time it works quietly, filling in the gaps and voids. This year's winner is grand in every aspect of the word."

Linda's history with ACUTA goes back 22 years. Always a staunch supporter of ACUTA's local events, she was a member of the planning committee for several local events in the Northeast and Mid-Atlantic areas. With a special interest in the educational program planning, she has been a member of the Program Committee at various times since 1995 and has received numerous Certificates of Appreciation from ACUTA in recognition of her service. She is always enthusiastic and tireless in her service as track coordinator, presenter, moderator, monitor, and speaker for seminars and conferences.

"Linda does so much behind the scenes to make sure that everyone at our seminars and annual conferences has a wonderful experience," Jeanne told the crowd. "She is truly an ACUTA ambassador."

First elected to the Board of Directors in 1995, Linda served as advocate for the Program and Membership Committees. She was later elected to two successive terms as secretary/treasurer. Linda has also served as New York State coordinator and hosted two local events as well as ACUTA's Introduction to Telecommunications class in Syracuse.

Linda's career in the telecommunications field began in 1979 at Syracuse University, first as an analyst and then as the manager of telecommunications. She moved to SUNY Upstate Medical University in 1986, serving as the director of telecommunications until four years ago when she transferred to Educational Communications to concentrate on distance learning and video conferencing.

She has also served as president of the Central New York Communications Association and chair of the SUNY Telecommunications Officers Association. She helped develop and was on the Planning Committee for seven years for the statewide SUNY Technology Conference, a joint conference for the telecommunications, data, and educational technologies professionals in SUNY schools and private institutions of higher education in New York.

Linda gives generously of herself to her community as well, having served as a board member of a shelter for battered women and children, volunteer at a not-for-profit community theater, Sunday school teacher, and pastoral care volunteer at Upstate.

Congratulations, Linda. This year's award couldn't go to a more deserving person!
Advertisers' Index

By advertising in the ACUTA Journal, these companies are not only promoting products and services relevant to telecommunications in higher education, they are also supporting our association. As you have opportunity, we encourage you to mention to these companies that you saw their ad in our journal.

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ACUTA members for articles and interviews in higher education and technology publications, and increased coverage of ACUTA events by the press. We are also planning a special issue of the journal featuring a compilation of presidential interviews, and a special publication based on the 2003 ACUTA Forum for Strategic Leadership in Communications Technology that will be mailed to college and university presidents and other leaders. We have also worked closely with other higher education associations on joint regulatory filings and educational programs. These efforts will continue.

4. ACUTA will be a recognized source of insight on legislative/regulatory affairs in communications technology.

The recently completed member needs assessment showed that ACUTA members recognize and value the information and insight they gain from ACUTA on regulatory issues, naming this as their second most important reason for membership (behind professional networking) and the most valuable benefit of membership. Staff efforts this year, implemented with the guidance and support of the Legislative/Regulatory Affairs Committee, have included publication of the monthly Legislative/Regulatory Update, initiation of the new Legislative/Regulatory Issues Matrix on the ACUTA website, and the development of the ACUTA College/University Telephone Numbers Database. This database was developed in cooperation with billing industry professionals to help curb unauthorized charges. As of July 15, 178 institutions had entered 2,659 ranges containing 1,557,036 individual numbers in the database. Four telecom and billing companies have subscribed, and their subscription fees have fully covered our development costs.

5. New technologies and applications will be developed to serve the higher education community.

The staff looks forward to working with the Board to implement this goal, which calls for ACUTA to identify cutting edge initiatives in product development and explore partnerships with other organizations to pursue technology development. For example, we have established links with the Internet2 organization and will continue to explore opportunities to work with industry and higher education groups to promote the development of services that our members need. I believe that our user groups can also play a valuable role in furthering this goal, with their direct input to technology companies serving our market.

6. Member representatives will have the skills and abilities to succeed in a changing technology environment.

A great deal of the staff’s time and energy is devoted to planning and producing educational programs, as you might imagine. In response to the continuing budgetary and travel challenges that members are facing, we have increased the number of programs that are offered via distance education. This year, we followed each quarterly seminar with audio or web-based seminars featuring some of the most highly rated presentations from our in-person events. In June, we presented a “virtual seminar” via the Web, with three different presentations. Members continue to rate these programs as very valuable.

In 2003-04, we will also be offering two regional workshops on a pilot basis, to determine how we might expand our quality in-person educational offerings to members at the local level at an extremely reasonable registration fee and with little or no travel expense.

Efforts to implement this goal go beyond educational programs to encompass our online services. Some of the recent enhancements in this area include the ability to upload documents to the resource library, to customize news feeds on your individual “My ACUTA” page, and to manage your ACUTA membership online by changing or adding representatives from your institution who have access to electronic services and publications. We have added links to information resources, primarily in the legislative and regulatory area, and will soon be expanding the variety of links that are available.

In this column I have highlighted some of the staff’s efforts to support the strategic short and long term goals of ACUTA. I hope that these efforts, combined with the tremendous efforts of our elected and volunteer leaders and committee members, have continued to make ACUTA valuable to you and your institution. I would be happy to respond to your comments and questions by phone at 859/278-3338, or by e-mail at jsemer@acuta.org.
From the Executive Director

Higher Education Technology Forum Examines High-Priority Issues

Jeri A. Semer, CAE
ACUTA Executive Director

Each year I have the opportunity to make an annual report to the business meeting of ACUTA members about activities of the professional staff during the past year. For the benefit of those who could not attend the annual meeting, I would like to summarize that report and invite your comments and questions.

The year since the 2002 business meeting in Reno has been an active and challenging year for the ACUTA professional staff, as I know it has for many ACUTA members.

The staff has been constantly challenged to innovate in the services that we offer and the way in which we deliver those services to our members. Our leaders in that effort have been a very talented and dedicated group of elected leaders—our Board of Directors and committee chairs—who have provided the inspiration and direction to keep the association moving forward. In a time when they are facing unprecedented challenges in their day-to-day responsibilities at their institutions, our board and committee chairs have continued to dedicate substantial amounts of time, creativity, and intellectual capacity to leading ACUTA. I think we are all very fortunate to have leaders of this caliber in challenging times.

Many of our efforts this year have focused on implementing the new strategic plan that was finalized in May, 2002, and introduced to the membership at last year’s business meeting. That strategic plan has not been resting on a dusty shelf in someone’s office—it has been an active, living document that has guided the efforts of our committees and staff as we strive to accomplish the goals and objectives that will ensure our continued success as an organization. The following is a brief review of each of our strategic goals and highlights of just a few of the professional staff’s efforts to accomplish them.

1. ACUTA institutional and corporate membership will increase.

Little did we know when we adopted that goal at our strategic planning retreat in December 2001 that state and private institutions across the nation would be facing unprecedented budget constraints, and that professional association memberships would be receiving greatly increased scrutiny. I am happy to report that ACUTA has bucked the trend of declining membership that has plagued many telecommunications and higher education associations. We finished the 2001-02 fiscal year with slight increases in both the institutional and corporate affiliate membership categories. We appear to be holding our own in the current fiscal year, which will not end until September 30. On average every month, several new institutional and corporate memberships are added, and we are retaining most of our members. While we haven’t had the dramatic increases that we hoped for, we are pleased to say that membership is holding steady.

Working in partnership with the Membership Committee, the staff has focused on the plan objectives for increases in membership from community colleges and Canadian institutions, and companies serving the college and university market.

2. Data Communications professionals will look to ACUTA for insight and information.

There was a major initiative this year to increase the participation of data communications professionals in ACUTA programs, products, and services. We have incorporated this goal into our educational programming, publications, and online services. A member focus group chaired by President-Elect Wally Czerniak provided valuable insights to assist in this effort.

3. ACUTA will be a recognized leader in communications technologies.

Our efforts to implement this goal have included successful placement of

continued on page 47
The free and open exchange of ideas and information.
Now that's something to build a campus communication system on.
1. Financial Models for Communications Technologies

This track is especially timely with budget crises affecting every state and higher education institutions strapped for funds. More sophisticated financial models, chargeback systems, and creative revenue streams are especially important now as information technology expenses increase and traditional long distance revenues decrease. You will learn about:

- Organizational strategies to fund communications and IT services
- Rate structures and chargeback systems
- Different models of funding departments through centralized vs distributed methods
- Strategies to deal with and/or replace lost long-distance revenue

2. Converged Networks

Most colleges and universities are in the process of converging their voice, data, and video applications and networks. Whether you feel you are just beginning this process or you are well on your way, this track will offer relevant case studies from campuses in the midst of this migration path. Sessions will cover IP telephony, IP video, trunking, network management, quality of service, security, and much more. You will hear about:

- Migration strategies to converged networks and technologies
- Techniques to managing network performance, traffic and bandwidth
- Cabling and wiring standards and practices that enhance inter-operability of converged networks
- Benefits to colleges and universities of an IP-centric network infrastructure that integrates voice, data and video
- Techniques to assess network readiness for convergence
- Examples of multimedia applications that run on converged networks
- Quality of service challenges and successes
- Preventing problems with electrical power, distribution and backup

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