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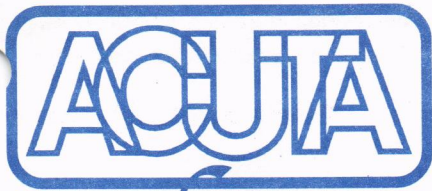
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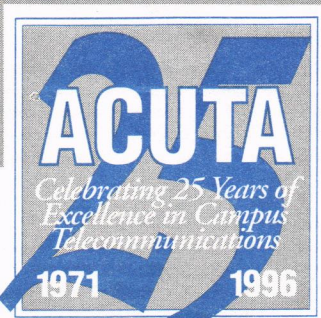
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News

June 1996

Association of College & University
Telecommunications Administrators



THE VOICE OF
TELECOMMUNICATIONS
IN HIGHER EDUCATION

Seminar addresses PBX technologies

ACUTA's Spring Seminar was held in Seattle, Washington March 31-April 3. Our topic was PBX Technologies, with a feature presentation by Alan Sulkin, President of TEQConsult Group. Mr. Sulkin covered the basics of PBX technology and Centrex, comparing the two approaches in terms of features and functions, terminals, installation and management, pricing, and benefits. In addition, Sulkin provided an overview of leading PBX systems and discussed system procurement, emerging system capabilities, and standard communications system options. Attendees found Sulkin knowledgeable and his presentation to be informative.

The schedule also included a well-received presentation which described some of the advantages and disadvantages of Centrex and PBX on four campuses. Participating in this panel discussion were: Linda Bogden-Stubbs, SUNY Health Sciences Center; Margie Milone, Kent State University; Paul Petroski, University of Maryland; and Tony Tanzi, Brown University.

Reporting that Brown uses both Centrex and PBX, Tony Tanzi described five core requirements identified as Brown tried to minimize uncertainty and plan for flexibility: control, capabilities, support, financial stability, and future considerations.

Tanzi stated, "We wanted the kind of control that would make our lives easier and be better for our end user. We also wanted to be able to make real time changes.

"We went very deeply into the capabilities of a PBX—not just voice and entry-level digital services. We knew this would be an 8-10 year ride...we wanted it to be planned, sensible, supportable, and affordable. We looked at a full line of analog digital and ISDN services and sets. It was infinitely easier to deal within ourselves and this was one of the decision-making variables. Unfortunately, because of tariff issues and regulatory concerns, the vendor from the local operating company could not be as responsive as the PBX vendors. The PBX vendors offered us a full range of services; we paid for them, but they were available, supportable and consistent in their rollout."

Tanzi identified support services as the core issue in the evaluation criteria. "If we



Alan Sulkin answered questions one-on-one after his presentation in Seattle.

didn't continue to provide consistent support across the University, the purpose of the PBX would be defeated. ...With Centrex, we didn't have the control, the ability to pick and choose the type of people that we thought were necessary to give us credibility to the user and to continue to provide a level of support service that we thought the community needed.

"As for future considerations: Looking at what we thought was on the horizon, it appeared to us that a PBX vendor had more flexibility in introducing some of the features we're all talking about. CTI, ISDN, desktop video, etc."

Paul Petroski "inherited Centrex" when he came to the University of Maryland. With about another year on a 10-year contract, he must soon make a decision to stay with Centrex or go to a PBX. Some conditions that made Centrex the right decision then have changed in the past nine years. "In 1988, the University infrastructure was inadequate for PBX. There was no fiber in the ground; now that has changed. We have fiber to all 45 buildings, so we can go either way.

"We also did not have adequate environmentally controlled space. In 1988 we had one computer operations room

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**Board Report
May**

The May Board meeting focused on reviewing recommendations from committees.

ACUTA's Board reviewed proposals

from the **Marketing Committee** regarding programs to stimulate interest in ACUTA, the **Vendor Liaison Committee** to increase vendor support, and the **Legislative/Regulatory Affairs Committee** regarding supporting Canadian member institutions in efforts to address regulatory issues. The Board also reviewed methods of access to ACUTA's Policy & Procedure Manual by members. Several options, including on-line access, were discussed. The Board decided to accept the Executive Director's recommendation to have the manual available on request in diskette form for members.

Other items on the agenda included:

- Committee reports
- A discussion of use of the InterNet to make voice calls and the possible impact on schools. Several Board members expressed concerns regarding the possible negative financial impact to schools and problems with network management.

Submitted by:

Anthony R. Tanzi, RCDD
Brown University
ACUTA Secretary/Treasurer

Computers turn 50

The first universal computer, called ENIAC (Electronic Numerical Integrator and Calculator) was developed by two scientists at the University of Pennsylvania. Their goal was to calculate ballistic trajectories for the Ballistic Research Laboratory. They began the project in 1943 and announced their computer in 1946. It weighed 30 metric tons, occupied a surface area of 1,720 square feet, and contained 18,000 electronic tubes.

Spring Seminar...

Continued from page 1

on campus that had several large main-frame computers and we had no place to put a switch. So the cost of making an environmentally controlled room was a consideration...."

Petroski acknowledged a benefit in knowing what costs are each month: line charges, equipment, etc. And with technicians on staff who retired from Bell Atlantic and AT&T, Centrex was a familiar road to travel.

SUNY Health Science Center shares many characteristics with University of Maryland. Linda Bogden-Stubbs described, in addition, such considerations as environmental concerns and costs, staffing needs, projected income possibilities, add-ons, code issues, cabling codes, and political issues which could complicate the decision-making process.

Margie Milone also inherited Centrex at Kent State, and is looking at renewing in 1998. While there was no outside plant then, it is now in process. She expects to complete the fiber backbone in the next 18 months, so outside plant is no longer a deciding factor. With Centrex, monthly costs are guaranteed by contract; there are no additional costs for upgrades on software, and area code changes were relatively painless.

"Control is a factor—we are at the mercy of the contractor; but they react to our needs because we are a large customer," Milone told the audience.

Other Seattle presentations included:

- Implementation and Management of the Small Campus Telecommunications Office, Stephen Flora, Bridgewater College
- PBX Procurement and Upgrade Strategies, Panel: Patricia Chang, The Claremont Colleges; Ellen Falduto, Hartwick College; Matt McGlamery, Northern Arizona University; Anthony Mordosky, Millersville University; Ron Pointer, Saint Louis University
- Using PBX Technology to Further the University without Walls, Carol Pochardt, Washington State Univ.

To obtain tapes of this seminar, contact Kellie Bowman at 606/278-3338 or e-mail kbowman@acuta.org.

Association of College and University Telecommunications Administrators

ACUTA NEWS, Vol. 25, No. 6

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Chicago Nears...

Within the next thirty days this association will celebrate its 25th Anniversary and will return for the first time to the site of its first Annual Conference — Chicago. I suspect the sixty-two people attending that original Annual Conference would be surprised as well as pleased with what has grown from that beginning. The Association now represents more than 800 institutions throughout the U.S., Canada, Australia, and New Zealand and has more than 100 corporate affiliates. This translates to nearly 2000 participating individuals.

I'm not so naive as to believe all will be able to join us in Chicago, but I'd like to believe all will make an effort to join us. I also look forward to seeing new faces.

This year we're introducing something new. In an attempt to provide the best and most up-to-date information, we will be offering Pre-Conference Seminars. These sessions will occur on Sunday as half- or full-day sessions. Although there will be a \$99 fee for the half-day sessions and \$175

for the full-day sessions, these can, for most of us, be off-set by the savings in air fare for staying over the Saturday night before. Topics include Introduction to Networks, Introduction to Telecommunications, Introduction to the World Wide Web, and Creating a Homepage. All will be presented by the best and most knowledgeable available. Check your registra-

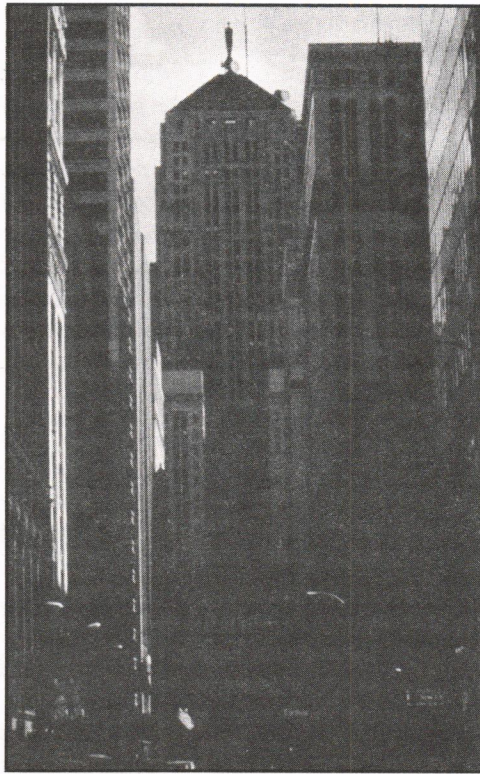
tion materials for more details or call the Lexington office.

The Conference program this year is a real whiz bang. There are outstanding general sessions, and tracks with better-than-ever presentations of new technologies, networks and infrastructures, student services, and management techniques and skills. There are also a number of professional development sessions that should not be missed. And don't forget the corporate presentations. These are where the real inside stories, new product offerings and enhancements should come to light. Oh, and there will be appearances from an appropriate number of dignitaries though out the week. (Again, thanks to the Program Committee Chair and the Program Committee. Like I said, it looks like a real whiz bang of a program.)

In addition to the program there will be the Wednesday evening gala celebration of our 25th Anniversary.

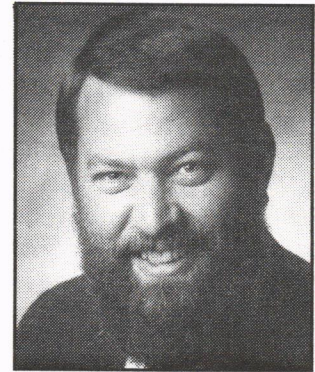
There will be magic and music in the air, elegance and friends to surround us, and outstanding memories for the making. This will be an evening you won't soon forget. So for those of you who have not yet made that effort I spoke of to join us, please do so. I look forward to seeing all of you at this our Silver Anniversary Conference.

'til next month...



CHICAGO

President's Message



Dave O'Neill

Eastern Washington University

ACUTA President

Virtual LANs at University of Mississippi

Robert Olsen

Vice President, Marketing; Agile Networks

Long before there were virtual LANs, the network visionaries at the University of Mississippi set a firm objective—to build a backbone network that allowed students, faculty, even entire departments "...to easily relocate at a moment's notice..." without administrative intervention—anytime, to any location around the campus. Although some vendors said it simply wasn't possible, Ole Miss now has an intelligent network with a backbone that's now the "fastest learner" on campus.

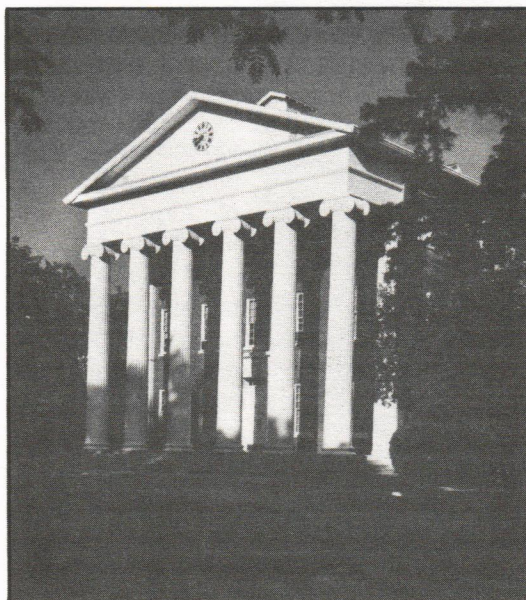
With 10,000 students and 3,000 faculty and staff, the University of Mississippi is one of the South's largest and most well-established educational institutions. Founded in 1848, this nearly 150-year-old institution prides itself on the national recognition it receives for its academic excellence and bold vision for the future. It is this vision that has ingeniously positioned the university for the 21st century.

Traditional University— Untraditional Network

With resourcefulness and vision, Dr. Jim Shankle, Associate Vice Chancellor of Computing and Information Systems, has been steadily implementing his goal for a 21st-century campus backbone. Years ago, on a tight budget, before today's switching technologies were ever a consideration, backbone construction at the University of Mississippi broke ground, so to speak.

"We began implementing the backbone's cable plant long before there was a need," Dr. Shankle explains. "Anytime a trench was dug on campus, our department would take advantage of the construction and throw in conduit to carry fiber optic cables. Eventually the University had enough fiber optic segments in the ground to connect into a campus-wide backbone, and today, a very capable backbone."

The University is currently running TCP/IP over 36 Ethernet point-to-point fiber links interconnected by routers. The fiber network ties together eight strategic campus buildings and provides connectivity for 62 of the school's 131 departments. Major network applications include Web browsing, e-mail, file transfer, telnet and NFS files access. In addition, the University has an assortment of networked machines including PCs, Macs, mid-range computers, mainframes and even Cray supercomputers.



The Lyceum at the University of Mississippi

This range of devices is matched only by the array of protocols being used such as IP, IPX, Appletalk and DECnet, with more on the way such as IP multicast. As the Network Support Group describes, "If it's out there, we'll have it here sooner or later."

This year, the University will extend the fiber network with Cat-5 UTP wiring into every dormitory room, faculty office, staff office, and classroom on campus. In total, more than 8500 10BASE-T connections are being installed.

Enabling Full Freedom of Movement

As at most large schools, the dynamic, nearly turbulent university environment experiences routine movement of network users. Students, faculty, and staff are constantly moving between floors and buildings. Renovation and construction and the resulting movement of users is perhaps the one constant on a university campus.

With this fact in mind, Dr. Shankle saw the primary objective of his network was to enable full mobility of users. "Long before it was considered possible, we put mobility at the top of our requirements list when talking to network equipment vendors. We knew we had to have a backbone network that let any user move anywhere on campus at any time, without administrative intervention.

Currently, only 10% to 15% of the network users at the University of Mississippi move every year; however, Dr. Shankle believes these moves are the source of 90% of his problems.

"A particular kind of move we've targeted from the onset has traditionally been our most difficult. When the school year starts, all 10,000 students hit at one time. We often face the situation where one office is completely overloaded and we need to relocate several individuals immediately. Another example is when we have to relocate on the spur of the moment due to events beyond our control. More than once, during registration, it has been necessary to relocate one of the administrative departments when flooding conditions occurred."

The University of Mississippi was determined to find a connectivity solution that would not only work with all of their existing equipment, but would provide them with complete mobility around the clock.

Automated Virtual LANs

Agile's ATMizer switches were used to build local backbone networks in the University campus environment. Based on the union of ATM and ethernet switching, these switches create and maintain automated virtual LANs (VLANs) that automatically interconnect related endstations of the same protocol type and, if it's a routable protocol, subnetwork address. Automated virtual LANs simplify the administration of endstation moves, adds and changes since they are automatically created and maintained by the network, not manually by an administrator.

The University also takes full advantage of distributed switching architecture which eliminates single points of failure on the network. Since the switches are fault tolerant and self-learning, users receive uninterrupted service day and night. Dr. Shankle notes, "We not only gain communications bandwidth but, more importantly, link redundancy."

The Agile network transforms complex, bottlenecked router networks into self-configuring, high-performance local ATM backbones. The network, not the administrator, automatically identifies endstations of the same protocol and subnetwork address (e.g., IP Subnet, IPX, Network) and connects them to a common virtual LAN. Since virtual LANs are auto-configuring, endstation moves, adds, and changes are accomplished automatically without operator intervention.

A Secure Campus Network

In addition to complete user mobility, the University recognized network security and control as a top priority. "We wanted to let our students pick up their laptops and go, connecting into the network from any location, such as the library or student center," said Dr. Shankle. "However, we wanted to ensure our network administrators still had overall control of the network, preventing users from tapping into the administration department, for example."

The new system lets administrators know exactly who and where users are on the network. Administrators know of each

user's location, MAC address, protocol types, network addresses, virtual LAN memberships, and network names—information that historically has never been readily available to the administrator. In addition, the network system logs all user moves, adds, and changes, and lets the administrator implement policies to prevent, for example, unsanctioned users or protocols from appearing on the network. Of particular interest to the University, administrators are being alerted of all new, changed, and duplicated IP addresses on the network.

Enabling Distance Learning and Real-Time Multimedia Applications

The University currently supports desktop-to-desktop video conferencing and is discussing the deployment of several new real-time multimedia applications based on the IP multicast protocol for point-to-point communications.

According to Dr. Shankle. "We now have a backbone network that will let us deploy real-time applications that, for example, allow students to listen and watch live lectures from a web browser on their PC." The ATM switches contain multicast traffic by automatically creating a virtual LAN for each IP class D address detected on the network. Students can easily surf between different IP multicast channels without the backbone network getting clogged up with multicast traffic.

Gambling on a Vision

According to Dr. Shankle, "We gambled by embarking on this vision years ago, not knowing what technologies would be available in the 1990s to make it all happen the way we planned. It's like throwing a football where the intended receiver is supposed to be."

Looking toward the 21st century. Dr. Shankle can't predict the future, but this new automated virtual LAN technology can help him prepare for it.

ACUTA representative at the University of Mississippi is Roland (Buster) Clark, Assoc. Dir. of Telecommunications.

Agile Networks can be reached at 508/263-3000; visit our homepage at <http://www.agile.com>.

See you in Chicago!

Mal Reader, Compass Consulting
25th Anniversary Committee Chair

Every year at this time we all have to decide whether or not we can afford the time and expense associated with attending the annual ACUTA Conference and Exposition. We look at the program, and the location; we look at what we have on our plates at work and rationalize the likely benefits of attending against the probable catchup or cleanup that will be required when we return. We ponder the compromise of sending someone else in our place, and struggle with the realities of workloads and the effects of annual vacations on our staffing levels. It is a tough call to make—that is, until you examine the potential benefits...

Just one good idea brought back from the event can pay for the trip. Just one desperately needed product or service discovered in the exhibit hall can make it all worthwhile. There's no better forum for the free exchange of information between peers, or for the knowledge imparted by the industry's movers and shakers. ACUTA offers it all, and nobody does it better!

In case word hasn't reached you yet, this year marks the 25th Anniversary of the Association and we are going back to Chicago—the site of ACUTA's very first annual conference. As befits the occasion, this conference has been designed as a celebration of our silver anniversary. Everyone involved in the organization of the educational programs, exhibit hall activities, and, of course, the social activities has entered into the spirit of making this an event to remember. This will be evident from the moment you arrive until the time that you leave.

After 25 years of successfully meeting the changing needs of its members, ACUTA has cause to be proud of its accomplishments and optimistic about its future. We invite you to join us July 14–18 at the Chicago Hilton and Towers to celebrate this special milestone, and to experience for yourself a renewal of ACUTA's commitment to excellence.

DC at a glance

Whitney Johnson

(Retired)

Northern Michigan University

Whitney L. Johnson

FCC address change affects you

For the past five years colleges and universities that make long distance telephone service available to students have been required by the FCC to post certain consumer information on or near telephones. The notice must identify the operator service provider, state that rates are available upon request, notify consumers of the right to use their preferred interstate carrier, and provide the address of the FCC's Common Carrier Bureau's Enforcement Division.

The address of the Enforcement Division has changed. The new address is: FCC Enforcement Division, CCB, Mail Stop 1600A2, Washington, DC 20554. Existing notices do not have to be modified to reflect this change until the next time that the institution updates its signage for another reason, such as a change to its operator service provider.

The Telecommunications Act of 1996

According to *Telecommunications Reports* (April 22, 1996), the FCC is buried with Universal Service Comments. These will be considered by the Federal/ State Joint Board set up by the FCC to make recommendations on implementing the Universal Service mandates of the Act. At the first meeting of the Joint Board, held a few weeks ago, Secretary of Education Richard W. Riley made a recommendation that the Board should accept the concept of free access to all advanced telecom services for schools and libraries, or at least accept the concept of access at very low rates, as reported in *State and Local Communications Report* (April 19, 1996). Let us all hope that Mr. Riley and the Joint Board intend to include college and universities and their libraries when they talk about "schools and libraries."

Many divisive issues require resolution by the joint board as it drafts recommendations for new universal service rules, which must be submitted to the FCC by November. Among the most pressing questions are whether local exchange service resellers should receive support funds, whether a measurement of actual costs or a "proxy" model should be used to determine subsidy levels, how large the newly constituted Universal Service Fund (USF) should be, and how obligations for contribution to any new universal service support mechanism will be assessed. (TR 4-22) An additional item of interest for the Board is that some members of Congress are planning to monitor the Board activity to be sure that they "follow the letter and spirit" of the provisions of the Act.

As indicated last month there is a proposed merger of two Regional Holding Companies (RHC) in the west and another in the east. Several members of the Senate are concerned and have requested a hearing "at the earliest convenient time" to consider the implications of the proposed mergers. (TR 5-6) They fear that these mergers would create enormous new telecom companies with great market power and a hearing to understand the potential benefits and

pitfalls is necessary. The May 6 issue of 411 indicates that these mergers will mean lower pricing for business services within a year.

The FCC

According to TR (4/22, 5/13), members of Congress continue to express concern about the financial resources required to fund the agency. At the same time, there are others who are urging that the Commission be given "breathing room" to focus on carrying out the mandates of the Act. Those who want to see the agency downsized or even eliminated are also still active in the legislature. Some propose that much of the activity of the Commission should be turned over to the states.

Senator Pressler, Chairman of the Senate Commerce, Science, and Transportation Committee, has suggested that the Commissioners be brought before the Committee to check up on the FCC's implementation of the Act.

What about 2000?

Telecommunications Reports (4/22) and *Telecom & Network Security Review* (May) both indicate that many computer systems are running with programs that cannot make the transition into the year 2000. Is this also a potential problem with the computer-driven telephone systems colleges and universities are using? Maybe vendors should be asking now so that their recommendations can be carefully tested the next two or three years.

Mobile Phones vs Pacemakers

There appears to be clinical evidence that some types of handheld cellular phones do interfere with cardiac pacemakers. No pacemaker malfunction has been reported as yet, but experimental research indicates that interference could pose a public health problem. Of the 975 patients in the study, nearly 54% experienced some type of interference. An independent company, Wireless Technology Research L. L. C. (WTR) is working with the U. S. Food and Drug Administration and scientists at the University of Oklahoma on this study. WTR will be issuing a full report on the results of this study in the future. (TR 5/20)

Internet Phone May Disconnect Revenue Stream

Whitney Johnson, Retired
Northern Michigan University

Several companies are beginning to offer computer hardware and software that will allow voice communication between two, or possibly more locations, over the Internet. The voice quality is expected to be comparable to a regular telephone call. As a result of the introduction of this equipment, on March 4, 1996, America's Carriers Telecommunication Association (ACTA) filed a Petition for Declaratory Ruling, Special Relief, and Institution of a Rulemaking relating to the provision of interstate and international interexchange telecommunications service via the "Internet" by non-tariffed, uncertified entities.

In response to this filing by ACTA, the Federal Communications Commission (FCC) has issued a request for comment on the petition. ACUTA has filed comments suggesting that the issues raised in the ACTA petition are very complex, and do not lend themselves to simple answers.

Our comments identified a need for the Commission to clarify the regulatory status of voice communication devices that use the Internet. ACUTA believes that regulation of voice communication via the Internet is within the purview of the Commission under existing law and that Internet phone service falls within the definition of "telecommunications" and "telecommunications services" con-

tained in the Telecommunications Act of 1996. "Further," we stated, "it can be argued that FCC oversight of this emerging use of technology is consistent with the consumer protection responsibilities of the Commission." ACUTA suggested that the FCC "consider the formation of a negotiated rulemaking committee, similar to the process used to develop a consensus on the Hearing Aid Compatibility matter earlier this year."

Educom, an education group representing primarily Academic Computing interests on University Campuses, has also submitted comments strongly urging the Commission to deny the ACTA petition describing the Internet as inherently a multimedia form of communication with "great potential economic, educational and social benefits which should be encouraged by the Commission." In addition they indicate that "Additional regulation of the Internet under the Communications Act ... is neither necessary nor desirable."

Obviously ACUTA members have to be concerned about FCC action on this issue. If Internet phone usage becomes popular, it will have a very negative impact on revenue from long distance resale. Often this revenue stream is used to enhance the campus network and access to the Internet by the entire University community. Campus telecom management must make sure that University Administrators understand the potential impact of the reduced revenue.

staff, and admin in regards to electronic communications (ie: student res hall voice service applications, Internet and other on-line services, staff network accounts, ID services, etc.)

To subscribe to either the telecommunications issues or legislative/regulatory issues listserv, send an e-mail message to majordomo@acuta.org. In the body of the message, type either of the following: *subscribe telecom* or *subscribe legreg*. Don't put anything in the subject line.

Questions? Contact Aaron Fuehrer at AFUEHRER@ACUTA.ORG or call 606/278-3338.

Host School Needed for ACUTA Fall Seminar

If your school is in the vicinity of Alexandria, Virginia, and you'd like to be more involved in ACUTA activities, the Fall Seminar, October 27-30 could be your opportunity! Host schools make a valuable contribution to ACUTA events, providing information about the area and making attendees aware of local attractions and opportunities.

The host school staffs a table at the Sunday evening reception and during coffee breaks on Monday and Tuesday. Some of our hosts have held drawings for mugs, umbrellas, and other items.

The host also works with the ACUTA staff to produce two letters prior to the seminar. The Board provides one complimentary registration to the event for which a school serves as a host.

If you're interested in being a host in Alexandria, contact Lisa Cheshire by June 28.

Position Available Southern Illinois University

Assoc. Director, Info Technology (Telecom)

Responsibilities: Manage staff resp. for designing/supporting campus of 22,000+ students, 6,900 faculty; GTE-provided DMS 100, Centrex phone system, voice mail, voice/data cable plant, inter-exchange services, & access to outside networks.

Qualifications: Min. B.S. plus 5+ years increasing responsibility managing similar services of at least 3000 stations in educ., healthcare, govt., or industry. Must demonstrate mgmt. & technical aptitude with current & future telecom technologies & industry direction. Exc. managerial skills incl. exp. in budget planning & project planning/mgmt. Exc. oral/written communication skills, be able to work effectively in a team environment, work effectively with internal/external customers. Must be flexible, highly motivated, self-starter. Must understand requirements of academic environment for provision of telecom svcs to meet & satisfy a diverse admin., faculty & student population. Knowledge of TQM principles & practice is desirable.

To apply: Submit letter of application, resume, 3 current letters of ref., & salary history by July 29, 1996 to: Office of Executive Director for Budgeting & Info Resources, SIUC, Anthony Hall, Rm. 11, Carbondale, IL 62901-4339 AA/EOE

From the listserv...

Do you subscribe to ACUTA's listservs? Here are a few questions asked recently:

- Can someone explain to me how a student can place a call from their room to a 900 number, if in fact we have 900 numbers blocked?
- Our inventory of phones is almost deplete. Has anyone else gone with the disposable phone concept? If so, do you provide phones for purchase and what kind do you use?
- Can anyone enlighten me to how they do centralized services for students,

Membership Drives Contribute to Expanding ACUTA Network

Kellie Bowman

ACUTA Membership Development Manager

Recognizing the importance of strong lines of communication between industry and education, ACUTA is conducting—for the first time ever—an organized membership drive to recruit corporate affiliates. Efforts have already resulted in 15 new companies joining ACUTA since January.

Over and over, *peer networking* is cited as one of the most significant benefits of ACUTA membership. Knowing and interacting with others who face the same challenges and seek answers to the same questions you have makes your job more manageable. As Membership Development Manager, I consider extending this network to be one of my most important goals.

We're also gearing up for our annual membership drive to institutions. We want to have a strong representation of colleges and universities in order to make your network of telecom professionals as effective as possible. Growing from the small group that gathered originally in 1971, ACUTA now represents nearly 2000 individuals at more than 800 institutions and 100 corporations.

After writing several letters for ACUTA's membership drives and composing jus-

tification for schools to use in paying renewal dues, I've concluded that ACUTA fills a very specific niche. Ours is the *only* association designed specifically to assist college and university telecommunications professionals in the struggle to operate successfully in this rapidly changing environment. Whether you reap the most benefit from your interaction with other members, depend on ACUTA's resource library or listserv, or place the highest value on the training and information you receive at our conferences and seminars, ACUTA is where you can find the answers you need. Our association is diverse enough to meet your individual needs.

If you would like to share the benefits of membership with a company or school who is not a member of ACUTA, let us know who we should contact. Getting our information into the right hands is sometimes difficult, so your participation is very valuable.

Whether you're reading this as one of our newest members or you've been a part of ACUTA for 25 years, you are an important link in our chain. We hope your affiliation with ACUTA will always contribute to your success.

quick question or two, the "technician" abruptly terminated the call.

Scam artists will try literally anything to trick people into giving them unfettered access to dial tone. They will pose as doctors who "must be transferred" in order to save the life of their patient, phone company technicians, even fraud protection officers! Their latest scheme is to call in after regular office hours or on weekends in the hope of catching part-time workers (who likely don't have instant access to their managers or supervisors) off guard. In fact, the con man mentioned above called the hospital switchboard on a Saturday night.

Welcome New Members

May, 1996

Institutional Members

- California State University, Fullerton, CA. Dick Bednar, ph. 714/773-2601; Tier 4
- College of Saint Elizabeth, Morristown, NJ. Neil Sachnoff, ph. 201/605-7477; Tier 1
- Indiana Wesleyan Univ., Marion, IN. Vicki Rudicel, ph. 317/677-2123; Tier 2
- University of the Virgin Islands, St. Thomas, VI. Cherie Wheatley, ph. 809/693-1541; Tier 2

Corporate Affiliates

BRONZE LEVEL

- Digital Link Corp., Sunnyvale, CA. Melissa Egusa, ph. 408/745-4276

COPPER LEVEL

- Campuslink Communications, Stamford, CT. Robert Schwartz, ph. 203/358-9800
- ECCI, Charleston, WV. Sharon Manning, ph. 304/925-1147
- Superior Modular Products, Swannanoa, NC. Paul Valliere, ph. 704/298-2260

Scam Artist Attempts (Unsuccessfully) to Steal University Dial Tone

A scam artist operating out of New York recently attempted to trick one of the switchboard operators at University of Missouri-Columbia's University Hospital and Clinics into transferring him to an outside line. The con man attempted to pass himself off as an "AT&T technician doing some routine testing." Fortunately, the MU operator suspected that something was amiss and transferred the caller to a Mizzou Telecom manager. After a

Bottom Line: Never, ever transfer an outside caller to a local number or any other outside line! Legitimate phone company technicians do not need your help to test their lines. Callers needing to convey vital information should be more than willing to provide you with a number and allow you to call them back (or relay the message). If a caller ever asks you to transfer their call and begins giving you dialing instructions to do so, your alarm bells should begin ringing immediately.

Reprinted with permission from Mizzou Telecom CONNECTIONS, March, 1996. Call (573) 882-2177 for information or to be added to the CONNECTIONS mailing list.

University of Michigan "Smart Card" accepted for bus fares

Students, faculty, and staff at the University of Michigan will soon be able to use the "electronic purse" on their Mcard ID to pay bus fare on Ann Arbor's city bus system. In May, ten Ann Arbor Transportation Authority buses will be equipped with smart-card readers to deduct fares from the Mcard CashChip, which stores up to \$50 and can be replenished at CashChip machines across the campus. The entire fleet will be equipped within a year. The new system, believed to be the first of its kind in the U.S., will also be used during Ann Arbor's annual art fair, when 120,000 people are transported from remote parking areas into the city. Contact: mcard@umich.edu or <http://www.umich.edu/~busfin/mcard.htm>

University of Michigan's ACUTA rep is Stephen Mayo.

Making voicemail a friend, not a foe

It has taken several years, but faculty and staff at Curtin University in Western Australia are—at last—thankful that voicemail has come to their campus. Originally installed as a time-saving, cost-effective alternative to hard-copy note taking, voicemail actually became a source of frustration to many staffers. Some even requested that their mailboxes be deleted because they were creating more work. With 80% of the messages coming from students, who were seldom available for a return call, some staff members were spending 1–1.5 hours a day clearing messages and "chasing" students. The solution lay in extended greetings, which now contain answers to the most frequently-asked questions, and an additional mailbox just for students, with an immediate reply capability. Students call back for responses left in answer to their specific inquiries, saving staff time and money.

Curtin Univ.'s ACUTA rep is Michael Tkacz.

Survey of faculty activities goes online at Rutgers

Computing Services at Rutgers University has written a new, Web-based application to replace a 15-year-old paper survey collecting data about faculty publications, research interests, community and public services, grants, etc. The application allows faculty to update information any time and provides an accessible, integrated database from which several administrative offices can report on faculty activities and expertise. The Faculty Survey Project was a joint effort of the Office of Institutional Research, Administrative Computing Services, the Laboratory for Computer Science Research, and other divisions. Netscape Navigator and Netscape Commerce Server, with the Kerberos authentication system, were used for a secure "channel" between the user and the server. Contact: Nadine Stern, stern@ots-mail-gate.rutgers.edu

John Whyte is Rutgers' ACUTA rep.

Duke University uses Web to gather housing assignment information

Duke University has implemented a new Web system to collect the student information necessary for undergraduate housing assignments. The system, developed by the Division of Student Affairs in collaboration with the Housing Management Office and the Office of Information Technology, uses custom PERL scripts and a secure server running WebSTAR Secure on a Macintosh 8100. In its first implementation the system reached over 94 percent of on-campus students. Contact: Peter Brauer, pbrauer@server1.stuaff.duke.edu

Jim Dronsfield represents Duke University at ACUTA events.

Campus News Briefs



Illustration courtesy of MCI

'96-'97 ACUTA Events

25th Annual Conference
July 14–18
Chicago, Illinois
Chicago Hilton & Towers

Fall Seminars
October 27–30
Alexandria, Virginia
Radisson Plaza/Mark Center
Topics: Desktop Video
Internet/Intranet

Winter Seminars
January 19–22, 1997
Ponte Vedra Beach, Florida
Topics: Integrating Networks
Negotiation in a New Era of Competition

Thanks to CAUSE's electronically delivered Campus Watch for some of the information on this page.

Industry Insights



Free E-Mail

Several companies have recently devised ways to provide free e-mail service for users who don't mind sifting through a little advertising while they're reading their messages. One of these companies, Softronic (Colorado Springs, Colorado), provides "FreeMail" through the local TV station. Another, Juno Online Services LB, has lined up 16 advertisers, including Quaker Oats, Okidata, and Miramax Films, according to *Investor's Business Daily* (4/22/96). Advertisers will pay 10 cents for every PC reached. Juno is working on deals with PC makers to bundle its software into the pre-installation package they offer computer buyers. Freemark Communications also offers its own free e-mail service.

USTA outlines plan for wiring schools

The United States Telephone Association proposes to give schools and libraries free access to the Internet and advanced telecommunications services, paid for through a universal service fund that would collect revenues generated through interstate telecommunications services. Providers of the services would pay an amount based on their interstate retail revenues; subscribers would pay a 4% to 5% surcharge on their calls. The USTA estimates it will cost between \$930 million and \$1 billion to link all the facilities over four years. *Source: BNA Daily Report for Executives 5/8/96*

Computer (R)evolution

Next-generation computers may look and act radically different from computers we have today. In response to customers' environmental concerns, Dell Computer will introduce this summer a **computer chassis made of materials that are fully recyclable**. (The Gartner Group predicts that nearly 25 million obsolete computers will end up in landfills in 1996, says the *St. Petersburg Times* 4/29/96.)

Functionality is evolving, also, with the boundaries separating television, telephone, and computer fading. Zenith Electronics is planning a television set that will incorporate a microprocessor and modem, as well as technology that allows viewers to **surf the Web via a remote control device**. And MicroUnity Systems Engineering has spent the last seven years developing a microprocessor that uses parallel processing to **zip through video, audio, and data streams at speeds a thousand times faster than today's chips**. If all predictions come true, the MicroUnity chip will not only be super-fast—it will also be super-cheap. As technology changes, the chips will upgrade easily, simply by loading new software. (*Business Week* 5/13/96)

For those with physical limitations, carpal tunnel syndrome, or just poor typing skills, life may be easier with IBM's next version of its OS/2 operating system. Code-named Merlin, it will **include voice-recognition capabilities** and should hit the market this fall, at a price below \$100.

Internet appliance

According to *Broadcasting & Cable* (4/15/96), TransPhone, a U.S.- and Canadian-based start-up company, has come up with a low-cost interactive appliance, which combines the functions of a full Web browser, two-line phone, fax machine, and answering machine into one unit. The company also plans to offer an interactive TV version that can plug into a TV equipped with a cable modem. "One of the targets is the (large) percentage of people who do not have computers," says TransPhone's president. The appliance will be available in June and subscriptions will run about \$20 a month.

Spotlight

Welcome to ACUTA's most recent Corporate Affiliate members:

AAC Corp., Account-A-Call provides telemanagement and billing solutions. Products include Profit Plus for universities, colleges and network resellers to provide billing for network, equipment, and other services. We also provide information on cost allocation, fraud control, and network analysis. *Kevin Young, (818) 303-7333.*

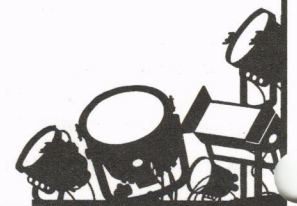
ACE*COMM develops software and systems used in the operation and management of voice and data communications networks. *Tom Murphy, StrategicAccountsDir., 301/258-9850*

Broadband Networks Inc. (BNI) is a manufacturer of fiber optic transmission equipment and switching electronics for video and data applications such as campus networking, distance learning, and security monitoring. *Sandy Howe, 814/237-4073.*

Carrier Access Corporation develops and manufactures low-cost T1 accessing solutions that help you increase campus network capacity while enabling you to use existing campus facilities and equipment. *Gerry Sutton, 303/442-5455.*

ECCI-NACUBO Long Distance Consortium is a leading collaborative purchasing organization for colleges and universities, providing institutions with wholesale prices and student billing services. *Sherry Manning, 800/YES-ECCI*

Micro-Tel, Inc. is one of the leading providers of call accounting systems. We have manufactured Microcall Call Accounting/Toll Fraud Alarm software for 17 years with over 30,000 installations nationwide. *Paula Cady, 800/622-2285.*



In Just 30 Minutes or Less...

Time. We never seem to have enough of it. The demands of family and increasingly complex careers leave us in a constant juggling act. Often, the time to volunteer for a professional association like ACUTA seems difficult to fit in. And when we do volunteer some of our precious time, we want to feel that our contributions make a difference.

However, those who do volunteer report overwhelmingly that they gain much more than they give. ACUTA cannot be successful without the meaningful participation of volunteer members. Even if you have **30 minutes or less** every month to give to the Association, here are a few ideas that can make a real difference!

Membership Marketing:

- Call or e-mail one or two new members and make them feel welcome.
- Call one or two prospective members and talk with them about ACUTA. Ask them to join. (You can get names from Kellie Bowman at the ACUTA office.) Ask if they're planning to attend the next Seminar, and send them a copy of the brochure.
- Call two of your key vendors and ask if they belong to ACUTA. If not, ask them to join.
- Send a copy of the *ACUTA News* or a conference brochure with a handwritten note to a prospective member or exhibitor, saying "I thought this would interest you."

Information Sharing:

- Make an electronic or paper copy of documents from your institution that you feel should be in the ACUTA Resource Library, and send them to the Lexington office.
- Send us an e-mail if you find an Internet resource that you feel would be valuable to other members. Let us know if your department has its own Home Page, so we can link to it.
- Call Pat Scott at the ACUTA office regarding a story idea for the *ACUTA*

News, either one you can contribute or one you'd like to read.

- Call two colleagues and ask each to write an article on their project for the *ACUTA News*.

Conferences and Seminars:

- Respond to the Call for Presentations for the next ACUTA seminar.
- If you hear an exceptional speaker that you feel would be great for an ACUTA event, send us their name.
- Route an ACUTA Seminar or Conference brochure to someone new on your campus—perhaps in a related department—and suggest that they attend.
- Call two of your key vendors and ask if they are exhibiting or sponsoring at the next ACUTA event. If not, encourage them to participate. Send their contact information to the Lexington office, and we will follow up.

Legislative/Regulatory Affairs:

- Write us a note about any important legislative or regulatory developments in your state. Let us know how they will affect colleges and universities.
- Send us a copy of important legal opinions from your institution on information technology issues, that we may have permission to share with other members through the Resource Library.

These are just a few ideas, but any one of them would be a great help to the Association. If all 2,000 member representatives picked only one of these activities a month, the results would be truly amazing.

Of course, there are still many more traditional opportunities for service on ACUTA committees. New committees will be forming after the Annual Conference. If you have an interest, contact me at the ACUTA office.

See you in Chicago...

Thanks to Stephen Ingram, CAE of Practical Solutions in Carmel, Indiana, for suggesting some of the ideas in this month's column.)

From ACUTA Headquarters



Jeri A. Semer, CAE

**ACUTA
Executive Director**



Position Available

University of California, Berkeley

Director, Info Systems & Technology:
Communication & Network Services

Responsibilities: Manage approximately 80 FTE with approx. 10 direct reports & annual budget of about \$17M. Complete merger of Data Communication and Network Services and Telecommunications into a new entity. Manage new unit, responsible for infrastructures needed in support of voice, data, video, & special purpose systems. Provide fiscal mgmt of recharge, state, & other funding sources, ensuring responsible budget allocations/expenditures consistent with campus goals. Develop, propose, & implement policy & plans for current/future communications services. Serve as representative of campus administration in communications matters.

Qualifications: Knowledge of existing & emerging communications hardware/software technologies. Demonstrated exp. leading a complex communications organization with large staff incl. highly trained specialists. Ability to communicate openly & effectively. In-depth knowledge of data networking, including LANs/WANs; Internet; voice networking; video networking; wireless communications; management of large end-user service organizations; financial mgmt in public univ. environment; negotiation/mgmt of contracts; regulatory/policy issues. Exp. in higher ed. desired.

Salary: \$76,900 - 115,300

Closing date: 6/21/96

Questions/applications to: Berkeley Campus Employment Office, Rm 7-G (Ground Floor), 2200 University Avenue, Berkeley, CA 94720-3540. (510) 642-1011 general line; (510) 643-9421 TTY for disabled

Position Available

Central Missouri State University

Manager of Telecommunications

Responsibilities: Manages operational, financial, & personnel activities of telecomm unit. Responsible for LANs/WANs to support interactive voice, data, & video exchanges throughout intracampus network.

Qualifications: B.S. deg or equiv. plus min. 3 yrs exp in telecom/data processing. Relevant mgmt. exp. necessary. Familiarity with Northern Telecom DMS-100 & assoc. Customer Data Change software & eqpt. processing svcs orders is a plus.

To apply: Position now open. Salary commensurate with qualif/ exp. Formal review of apps begins Sept. 1; search remains open until position filled. Apply to Corey Wedel., Human Resources, Admin. 190, Central Missouri State Univ., Warrensburg, MO 64093.

Women/minorities encouraged/AA/EEO

Position Available

Michigan State University

Broadband Networks Engineer IV

Responsibilities: Include engineering and operation of data and CATV networks running on baseband, broadband RF, and fiber optic media. Coordinates data, video, and CATV activities with other campus technical managers.

Qualifications: BSEE plus 5+ years exp. in planning, design, installation, testing, training, & operation of state-of-the-art networks, & PE registration required. Technical knowledge of digital, analog, RF, & fiber optic systems, communication protocols & systems (TCP/IP, Ethernet, FDDI, ATM) is desired.

To apply: Call 517/432-1662 by June 30 to request application. Ref. posting S60183.

MSU is an AA/EO institution.

Position Available

North Carolina State University

Director Telecommunication Services

Responsibilities: Manage Univ. telephone systems & plant & wiring systems which support voice, data, video, environmental control, & alarm communications. Resources to be managed for acad/admin units incl. approx. 5,800 centrex lines, cellular service, pagers, long distance service, two PBXs, numerous key systems. Student resources to be managed incl. approx. 4,000 centrex lines, long distance, cable TV outlets, data outlets connected to student data network in student housing system. Plant mgmt. incl. two Main Distribution Frames & campuswide network. Wiring mgmt. incl. 5-yr plan to install University's standard wiring complement in 156 major bldgs. Responsible for annual budget of approx. \$10 million.

Qualifications: B.S. in Bus. Ad., EE, Telecom or related; 5 yrs relevant managerial exp. in large communications organization req. Additional exp in telephone operating company, eqpt/services sales organization, or communications org. within another institution of higher educ. is preferred.

Salary: Commensurate with educ./exp.

To apply: Submit letter of applications, resume, salary requirements and names, addresses & phone numbers of 3 prof. ref. to Stephen W. Keto., Assoc. Vice Chancellor of Finance and Information Systems, NCSU, P. O. Box 7206, Raleigh, NC 27695-7206

Application deadline is July 1, 1996 with a preferred starting date of October 1, 1996.

MSU is an AA/EO institution.

Additional position ad on page 7



Association of College & University
Telecommunications Administrators
152 W. Zandale Dr., Suite 200
Lexington, KY 40503-2486



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