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Report on Annual Conference in Orlando

Get out front and lead, telecom chiefs urged

“We need people who know how to teach the boss, because the boss doesn't know how to take advantage of the information age,” Dr. Ray Steele of Ball State University declared as he began his keynote address at the ACUTA annual Conference in Orlando, FL, July 16.

Referring to the “Open Forum” session that preceded his address, Steele remarked, “A young woman just did something very courageous. She stood up and simply said, 'I don't know, but I'd like to learn.' I wish I could find 10 university presidents who get up and say the same thing.”

Steele cited three examples of how investing in modern communications technology has propelled Bradley University and the University of Pittsburgh as well as his own ahead of their peers.

In 1985, the University of Pittsburgh was one of the three most expensive public institutions in America. Yet it was rated a “best buy” in The New York Times' guide to higher education.

Pitt, which has adopted the Campus of Future model that Steele developed, "got into the information age because it recognizes that technology is essential to train their students for the modern world," he said.

Of the more than 800 participants in the Annual Conference in Orlando, over 10 percent of them were “first timers.” They participated in a contest designed to teach the history of ACUTA. Ann Mulligan, Accounting Supervisor at the University of Nebraska, won first place. Every first timer was recognized at the Wednesday luncheon and presented an ACUTA coffee mug.

Tomorrow's challenge: network management

“In the 1990s, ISDN will be fully implemented,” Joe Massey predicted at the ACUTA Annual Conference in Orlando. “But at the same time no one will know what it means.”

With this tongue in cheek comment, the Atlanta-based consultant peered into the future to tell the assembled telecommunications administrators and vendors what they can expect.

“As desktop computers multiply and grow in power, they will demand to talk and have access to each other's data bases,” Massey emphasized, creating a tremendous push for local area networks.

“The era of the big mainframe computer – displayed in a glass room where people come to gaze at it – is giving way to the day of black boxes sitting on desktops, just whizzing away,” he remarked.

“When a desktop moves in at the university, the telecommunications department usually gets a request to hook it up with something,” he noted.

“The big question facing the telecommunications manager is: ‘How are you going to provide the

(Please turn to page 7)
Grunder leaves office on positive note

By Patricia Searles
ACUTA Secretary
Cornell University

The President’s Report to the annual Business Meeting was filled with good news:

- ACUTA finances are in good shape. (Copies of the Treasurer’s report were distributed. A summary of the 1990-91 Association budget will be mailed to members.)
- As a result of our membership drive and new state coordinator network, our membership has grown by more than 100.
- The Administrative Office in Lexington, KY, continues to grow, providing expanded service to the membership as well as the Board.
- Publications continue to grow and improve, and
- All three seminars and the annual conferences were well attended and quite successful. Several new programs are under consideration, and we hope to develop at least one new one during the coming year.

Automatic progression of officers took place. Grunder (Yale University) became Immediate Past President, F. William Orrick (Washington University in St. Louis), is new the President and Paula Loendorf (University of North Dakota) is Executive Vice President.

With no nominations from the floor, the Nominating Committee’s report was approved by acclamation, electing Coleman Burton (University of Missouri) as Vice President, Patricia Searles (Cornell University), Secretary and Howard Lowell (University of Colorado), Treasurer.

New Articles of Incorporation, enabling ACUTA to qualify for IRS Sec. 501(c)(3) tax-exempt status, were approved.

Recognition awards were presented to members who have achieved five, 10 or 15 years of ACUTA membership.
MESSAGE FROM THE PRESIDENT

F. William Orrick, Washington University in St. Louis

I am honored to address the membership of ACUTA for the first time as your president. And I appreciate all the words of encouragement that I received at the annual conference in Orlando.

We have an exciting year planned. I believe Mal Reader, our Program Director, has discovered the fountain of programs. Taking our cue from your input, we have scheduled three very appropriate and timely educational seminars.

- Voice Messaging and Voice Response – January 13-16 in Ft. Lauderdale, Florida, and
- Strategic Applications of Telecommunications in Higher Education – April 5-9 in Hawaii.

As is the ACUTA tradition, these are some nice locations. Mal already is working on the 1991 conference in St. Louis. I hope to see you at one or more seminars and all of you at the conference.

During the past year, we had three truly successful seminars in terms of programs, attendance, feedback and facilities. And I think everyone who attended will tell you that we had a great conference in Orlando.

In addition, we experienced our best year ever in membership growth as well as event attendance. Expanded publication efforts included the issue of our first monograph.

These accomplishments, and others, are due in large part to the leadership and hard work of our immediate Past President, Mike Grunder of Yale University. Including his year as President, Mike has given 12 years to the ACUTA Board. He has been Finance Chair, Membership Chair, Treasurer, Vice President and Executive Vice President as well as President.

ACUTA recognized two deserving members in Orlando. Membership Director Bonnie Johnson, of the University of Kentucky, received the Board of Director's Award for her leadership in the membership drive which added more than 100 members to the Association. She supervised creation of a database that includes all institutions eligible to join ACUTA, and organized state and province efforts with the help of local and regional leaders.

Del Combs, our Executive Director, was honored with the first Bill D. Morris Award. The Board created this award in memory of the former ACUTA President, who passed away last September, to honor the member who, in the judgment of the President, best exemplifies the ideals which Bill Morris brought to ACUTA – dedication, vision, professionalism and leadership.

ACUTA events always have been occasions for professionals to discuss common problems and interests. In Orlando we tried to better facilitate these invaluable exchanges with our first "Birds of a Feather" sessions.

Various interests and concerns were submitted by members prior to the conference and then posted in the registration area, where members could sign up for a scheduled discussion. These were consolidated into groups of manageable sizes, and I was delighted with the results.

The "Open Forum" at the start of the conference gave more visibility to members as they were called on to speak. Introducing individuals and discussion topics to the assembly in an informal manner got the spirit of exchange off and running.

While saving the details for subsequent columns, I want to share with you, in general terms, some of my goals for the year.

I am appointing ad hoc committees in four areas:

- Longrange Planning – to develop a mission statement, strategic plan and five-year plan;
- Data Base Development – to survey member institutions and compile data regarding equipment, staffing, management procedures, etc., useful for planning and decision making;
- Media Services – to explore the feasibility of video classes in telecommunications, seminars via satellite and other uses of media to accomplish ACUTA's objectives;
- Program Evaluation and Development – to strengthen further the depth and variety of programs we offer.

Also, I am asking the Membership Committee to set its sights on gaining another 100-plus members this year. I know our numbers will continue to grow as more telecommunications administrators discover how much participation in ACUTA helps them in our rapidly changing field.

ACUTA programs offer the best and most economical opportunities for continuing education and professional development.

I know of several members who plan to make submissions to the ACUTA monograph program, and I want to encourage others to consider this. Our members possess a wealth of information which should be compiled into a library of professional literature.
ACUTA's Orlando Annual Conference wins high marks

Attendees of the ACUTA Conference in Orlando who turned in evaluations gave the event a rating of 8.75 on a scale of 10.

Comments, overwhelmingly, were positive but some suggestions were offered for improvements.

Hotel facilities got the highest score at 9.25. Social activities were second at 8.86, while location came in third with 8.56.

Timing of the conference was ranked 8.4. The food got an 8.01 rating, with cost of the conference scoring 7.94 and hotel rooms coming in at 7.26.

Sixty-five vendors participated, one of the largest number of exhibitors for any ACUTA event.

The exhibits even had to be spread over two halls. The Buena Vista Palace, the conference hotel, offered the biggest exhibit space for an ACUTA show.

Those facts may help explain why quality of exhibits was scored at 8.48 with quantity rated 8.38, and exhibits overall registered 8.49.

There were so many interesting exhibits, in fact, that some attendees would have liked more time to study them. While still positive figures, the ratings for exhibit schedule, 7.64, and viewing time, 7.34, indicate that some attendees could have seen more.

"We have to strike a balance," explains ACUTA Executive Director Del Combs. "If we stretch out the exhibit time to allow attendees to view exhibits at their leisure, exhibitors may feel like their time is not being used wisely because viewer traffic is thinned out.

"Exhibitors don't gain anything by investing the time and expense of another day if the number of contacts with users remains the same," he added.

"This is one area where our new Vendor Liaison Committee might come up with some good ideas."

Attendees scored the exhibits 8.59 in complementing the overall theme of the conference.

While food served for the conference was rated well — one written comment called it "the best food I had at a conference" — some attendees noted that those on a vegetarian or kosher diet had no alternatives.

"We will try to accommodate attendees with special dietary requests if they will inform the ACUTA office at least two weeks in advance," said Lisa McMehren, Membership Services Coordinator. "We have included this in the pre-registration information for the seminar in Portland, Oregon."

"Call for Presentations" featuring ACUTA members was well received. "I would like to see more participation by university representatives presenting 'what has been, is being and will be done' with 'how,' 'when' and 'why' included."

Other evaluation comments included:

"I especially found the opportunities to break into small specialized sessions very useful. I was able to concentrate more on the topics of discussion and felt more inclined to interact with the speaker."

"I like the Monday-Tuesday luncheon format: buffet with two-hour time frame, giving an excellent opportunity to pay closer attention to vendor exhibits."

"Was impressed with way meeting rooms were able to contain the sounds therein — best hotel yet.

"Would like another one to three hours of exhibit time."

"Church Street Station was great but didn't have enough time there."

"Great conference! As a new comer, I learned a lot. Met a lot of helpful people. Everything was very well run."

"Conference was great. Lunches were OK but would have appreciated real plates and utensils — the plastic stuff was tacky and hard to use."

"Instead of trying to be generic in seminar presentations, have more at 'rated' levels. I wouldn't mind missing a session and spending more time with vendors. I have been to conferences where subject levels were rated and attendee participation in discussions was greater."

"Overall, the seminars were the (Please turn to page 7)
ACUTA’s seven regions consolidated to five

By Patricia Searles
ACUTA Secretary
Cornell University

ACUTA regions, which originally numbered five and were expanded to seven in 1984 to correspond with the regional Bell companies, again number five. Also, beginning in 1991, regional directors will be elected by direct vote of the membership.

These actions were announced at ACUTA’s annual business meeting, July 18, in Orlando, Florida, by then-Past President Mike Grunder.

“Regional directors are not compensated, but their expenses are covered for certain trips,” he explained. “The board decided that having two more directors did not significantly improve services to members. And it is easier to get a five member board together and arrive at a decision, regardless of whether it is a face-to-face meeting or telephone conference call.”

A motion made to rescind the board’s action until the membership could be polled was ruled out of order by ACUTA Parliamentarian Kia Malott. “The bylaws specify that the board, not the membership, shall make decisions regarding the number and alignment of regions,” he pointed out.

The motion was re-submitted “recommending” that the board delay implementing the new alignments until the membership was polled. This move failed in a show-of-hands vote, 37-19.

According to new President Bill Orrick, Region 4 Director Ken Leverington, University of Arkansas, and Region 5 Director Dino Pezzutti, The Ohio State University, who now reside in the same region – the Midwest – will represent the region jointly.

The director of former Region 2, Don Hoover of Villanova University, submitted his resignation earlier this year. His region is now part of the Northeast Region, represented by Joe Mantione of SUNY, Buffalo.

Former Region 7 Director Howard Lowell, has been elected ACUTA Treasurer. Donna Powell, California State-Sacramento, director of Region 8, resigned effective Aug. 31. Both of these regions are now part of the West Region and Orrick has appointed Andy Pearson, University of California-San Francisco, to be its director.

Garry Tatum, Canada, University of Guelph, also recently submitted his resignation, and the President has appointed Bruce McCormack of Brock University to fill this post.

Revisions of the bylaws made by the Board at its Orlando meeting include a procedure for removing directors from office and a requirement that each director attend one national event every year. This is designed to ensure that Board members keep current with ACUTA’s program offerings.

Fulfilling a request of the membership, the Board also revised the bylaws to provide for direct election of regional directors.

A call for nominations will be published in the October ACUTA News. The deadline for submitting nominations is Jan. 14.

Ballots will be mailed to members Feb. 18, with ballots due back in the ACUTA office by March 11.

The five new regions are:

**Northeast** (Joe Mantione, SUNY-Buffalo, Director) – Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island and Vermont.

**Southeast** (Jim Dronsfield, Duke University, Director) – Alabama, Delaware, Florida, Georgia, Kentucky, Louisiana, Mississippi, Maryland, North Carolina, Puerto Rico, South Carolina, Tennessee, Virginia, Washington, D.C., West Virginia.

**Midwest** (Ken Leverington, University of Arkansas, and Dino Pezzutti, The Ohio State University, Directors) – Arkansas, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Texas and Wisconsin.

**West** (Andy Pearson, Univ. of Calif.-San Francisco, Director) – Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Utah, Oregon, Washington, Wyoming.

**Canada** constitutes a region of its own. Bruce McCormack of Brock University is the director.

ACUTA Past President Kia Malott, Southern Illinois University, Northeast Region Director Joe Mantione, SUNY-Buffalo, and Aileen Grunder, wife of President Mike Grunder, Yale University, posed for a photo with one of the hosts for the Orlando Conference.
A new feature of the ACUTA Annual Conference — Birds of a Feather — brought together members with common interests for informal discussions.

Ron Pointer, Director of Communications Services at St. Louis University, led the discussion in the Cable and Wiring group.

"One question on which we compared experiences was a wiring standard for voice and data networks on college and university campuses," he reported. "This was very helpful for me, because we've been in the fact-finding mode for about two years at St. Louis University, seeking a universal wiring standard to provide future flexibility.

"I also got to ask other people during the conference about their wiring, and two four-pair seems to be the most common," he said. "The University of Delaware and Wayne State in Detroit all had good reports on their use of two four-pair. Ohio State runs two three-pair to every jack. Wayne State, Ohio State and University of California-San Diego have all had success running Ethernet over twisted pair.

"Two four-pair costs less than coax," he pointed out. "And it's easier to pull. Moves, adds and changes also are easier to make. So it certainly makes sense in the university environment."

Institutions using two four-pair also encourage departments to employ the same wiring in their local area networks, Pointer added. "We intend to use it when we wire new buildings or renovate older ones."

"We had a lively discussion in the Student Resale and Telephone Facilities Management System group," Ken Leverington, University of Arkansas, reports. "The 17 participants ranged from people with lots of experience to others who were just getting started in telecommunications management. Just what services a college or university should or can offer its students on an economical basis is a complex question, and we had lots of give and take of this subject," he explained. "Most managers want to hear how a system works in an environment similar to theirs before making a decision.

"Cost, of course, is a big factor in any decision a college telecommunications manager makes," Leverington noted. "The systems we discussed can cost as little as $4,500 or as much as $250,000, depending on the type and capability of hardware and software."

"The time flew and a lot of discussions were resumed later."

"The time flew as we talked and a lot of discussions were resumed later. From looking at the topic of the Portland Seminar, Case Studies of Telecommunications Management Information Systems, I think most people in our group would find the program very beneficial."

Most participants in the Touch-Tone Registration group were college and university people interested in employing this technology on their campuses, according to Pat Searles of Cornell University. These were joined by several colleagues prepared to share their experiences — both good and bad — and some vendors.

Discussion centered on hardware components:

- Software — writing your own versus buying a package;
- Line provisioning — PBX lines versus central office lines;
- Integration with automatic attendant/automatic call distribution (ACD) features;
- Port provisioning, queuing, scheduling, incomplete registrations, drop/add activity, automated credit card billing and foreign students.

The impact on the campus telephone system and serving office also was considered.

Central Florida Community College averaged seven to nine minutes each using touch-tone to register 5,000 students with an eight-port system attached to their ROLM PBX and IBM mainframe, their vendor reported. The school is using the automated attendant feature of its voice mail system but are exploring the use of ACD.

Ferrell Mallory related Brigham Young University's eight-year experience with an automated registration system. They have developed much of their own system and are in the process of upgrading it. They have 48 direct inward dial (DID) ports, using an ACD front-end with a 60-second queue.

"Although college telecom offices have traditionally had little or no involvement in touch-tone registration systems, the horror stories that have occurred have caused that to change," Searles explained. "Not only are telecom staff becoming active participants in implementation, in some cases, they have taken on project management."

"Although this session also exceeded its allotted time, interest was still strong at the end. Touch-Tone registration — along with other voice response technologies — is no doubt coming to many more colleges and universities in the near future," she added. "And telecom managers seem hungry for information. Most members of our group are looking forward to the Ft. Lauderdale Seminar, Jan. 13-16, where the topic will be voice processing."
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Pitt’s auditors also have estimated that the university realized $10 million in savings over 10 years since installing its high-technology environment.

Ball State (22,000 students) is a mid-sized, midwestern school with half the enrollment of Pitt (45,000). But applications to Ball State went up 43 percent after students became aware of the learning opportunities made possible by its electronic environment, Steele noted.

Bradley University’s residence hall occupancy went up 17 percent after the “Residence Hall of the Future” project created an electronic environment by “simply installing plugs in dormitory rooms” for students to network with the university’s mainframe computers as well as off-campus data bases.

“Budgets and enrollments are some of a college president’s biggest worries,” Steele advised. “Any president should be impressed when he hears about what has happened at Pitt, Ball State and Bradley.”

Ball State’s experiment, employing high-technology in higher education – has been featured in several publications, Steele continued. “We had 250 campus visits in the past 18 months from people who want to observe what we do. This mid-range institution in the midwest has suddenly become an example of how technology can help a campus enhance learning and teaching,” he added.

“High education is just as essential to America, if not more so, (Please continue on page 12)

High marks

(Continued from page 4)

best of the seven annual conferences I’ve attended. Time frame for meeting and exhibits was better. The two plus days for vendor exhibits was plenty.

I really liked ‘Birds of a Feather’ session. I would like to see more time allotted to these sessions. As a first-timer, I was very impressed with the speakers. It was also great to meet so many people with the same problems I have as well as people with solutions.

“The name badges should have had the names of institutions in bold type.

“I have been in telecommunication for 39 years, 38 at the corporate level, and have been involved in many seminars and conferences. This was by far the best I have attended. Well organized and done with class.”

More Photos!

The September issue of ACUTA News will contain many more photos of the Orlando Conference.

Included will be candid shots of speakers, “networking” attendees, and some action shots you can’t wait to see from Church Street Station and the annual banquet with the Zanadu dancers in full costume.
I had a great time in Orlando at the ACUTA Conference. It is always good to see old friends and meet new ones every year.

My Accounting Supervisor, Anne Mulligan, went to Orlando with me. It was her first ACUTA Conference, but I'm sure it won't be her last. Anne was a student worker in our department when we hosted the ACUTA Conference in Lincoln in 1980. Since she was the junior member of the office, Anne had to stay and mind the store while the rest of us enjoyed our role as host.

Anne enjoyed meeting so many of the ACUTA members she had talked to over the years, and she found the exhibits and sessions very informative. With a little luck (and effort), Anne came home a big winner in more ways than one. She won the BellSouth drawing for a VCR and won the ACUTA First-Timers' contest. I've thought about having her select a lottery number for me . . .

A new conference feature, "Open Forum - The Reason I'm Here," was kicked off on Monday morning following Mike Grunder's welcoming address. Mal Reader, our Program Director, selected cards received from members who had responded to an inquiry of what they hoped to gain from the conference. The members whose cards were selected were handed a wireless microphone so they could share their question with the assembly. Mal then asked if anyone in the audience could help this fellow ACUTA member. The session proved lively and interesting, and I hope to see it continued.

Time and space also was set aside for "Birds of a Feather" groups. These allowed members interested in Student Long Distance, Voice Messaging/Voice Processing, Touch-Tone Registration, and other topics to meet and share their experiences. The ACUTA board is to be congratulated for introducing this conference feature. This is what ACUTA is all about - a network of people sharing their experience, information, problems and solutions.

We had good attendance in the Understanding Telecommunications course which focused on Student Service Opportunities. I never cease to be impressed by the different ways various institutions handle student services, and I always learn a lot during these sessions.

Dino Pezzutti of The Ohio State University and I jointly conducted a session on "Centrex/PBX: Strategic Decisions for the 90's." It was a fun session to develop and it's always nice to work with Dino. His operation at Ohio State is highly successful and an excellent working model of "how to be your own telco." We reviewed the telecommunications strategies at our respective institutions and the various factors that were influential in our system-selection decision. Although strategies may differ, it is interesting to see how very similar our operations are.

**Dial Tone Bandits Strike**

As most of you know, we have a large "800" network at the University of Nebraska providing long distance services to our faculty, administrators and staff when they are off campus. For more than 10 years, this operation was relatively problem-free.

Well, our luck ran out! Hackers found their way into our "closed" network for some fun and games. In a very short time, the network began to experience mega-usage. All of the calls were originating in the New York/New Jersey area and terminating in Puerto Rico.

One often reads about the criminal element obtaining a network's number and authorizing codes. Within minutes they have "sold" the number to hundreds of people, even providing phone banks for them to use. Believe these stories. It can happen.

Fortunately, an alert engineer at Lincoln Telephone (LT&T) noticed the heavy traffic and went to work to discover why. Because of this action, our losses were not nearly as extensive as they could have been.

It has been an interesting experience for us, albeit a costly one. Our operators hear all sorts of stories when they intercept these "800" calls. The majority say they "bought" the 800 number and auth code for $10.

Telephone abuse often is a "family-tree" operation with Mom, Dad, or the kids "borrowing" the remote access codes to the company PBX and placing unauthorized calls. This kind of theft/abuse is costly, but not nearly as frightening as the invasion of organized crime running their drug, prostitution and other criminal capers through private switching systems.

PBXs, which are easy to break into, can provide shelter for the criminal. If the FBI uncovers the illegal calls and traces them to a switching system, usually all they find is a legitimate company - and no sign of criminals.

One of the most common PBX fraud schemes is to enter a switch from an outside phone via an "800" number. This can provide callers with access to a second dial tone and allow the criminal to run a long distance business from their home or a pay phone. The customers stand by while their host accesses the victim's PBX for dial tone and then obtains a connection. The "customer" pays perhaps half the normal rate for the call -- all of it pocketed by the dial-tone thief.

Carriers such as MCI, Sprint and AT&T will work with their [Please continue on next page]
Summer-time blues hit college telecom office

By Nancy A. Gallagher
Saint Anselm College
Northeast Region

Anyone working in the telecom office of a college or university knows the feeling . . . .

Once again it’s peaceful, quiet, serene, heavenly! Right now it’s hard to imagine that we’ll be anxious to hear hearty laughter in the halls in a month or so. By that time, we begin to remember that $ can’t be made without that entity called “students” living on campus. And without that $, we won’t be able to ask for the increase in our travel account. And what would we do if we couldn’t go to future ACUTA seminars or conferences?

Perish the thought!

We do have to stop once in a while and remember that our purpose at work is to supply students, faculty and staff with the best telephone service possible. And without students, there wouldn’t be a college to employ us. So, thank heaven for those wonderful students!

Here at Saint Anselm College, in Manchester, NH, we have just completed our second academic year providing telephone service in residence halls. As much as one might think you’ve got a system mastered, a small change in college procedures can change “everything!” In the past, graduating seniors were invited to participate in a fun-filled week on campus before graduation, with cookouts, concerts, a champagne breakfast, etc. Knowing that these students were returning, gave our department an extra week to collect any amounts due before the seniors disappeared.

This year, however, there is no longer a week of festivities. All senior telephone bills have to be paid before students leave after final exams. Letters are sent out, notices are posted, phone calls are made. And still – no sign of those mysterious people who have succeeded in avoiding you. If only we could “beam them down, Scotty.” Just to see what they look like. Then we could at least give them a short lecture on responsibility, never mind getting any money out of them.

Things always seem to work out though. Seniors with large unpaid bills will receive diplomas with no signature. Those with small amounts due will have that deducted from any refund, or that amount will be added to their remaining tuition bill. We always manage somehow.

Faculty and staff may, in some cases, be as difficult to collect from as students (some, even more so). We give our employees the opportunity to make personal calls with an access code and bill them monthly with a 10 percent discount off AT&T direct dial rates. We put messages on the bills as needed and write smart little letters. But unfortunately, there isn’t much that can be done when a former employee leaves owing $148.

These are just two concerns of the Telecom Department, and two topics for discussion at the next ACUTA function I attend. What I have learned through ACUTA has helped me avoid some major problems that can plague college telephone system managers. Just by speaking with a colleague over lunch or at a coffee break or listening to a speaker, ideas flow freely and one picks up remedies to problems quite easily.

You may hear the word “telephone” thousands of times in a few days, but if you come home with one time-saving idea, the trip will have been worth it.

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customers to help control and protect their facilities from illegal access. The Communications Fraud Control Association (a not-for-profit organization formed in 1985) will share information and help contribute to the development of anti-fraud programs for their members. For more information, call the association: (703) 848-9768 or write: CFCA, 7921 Jones Branch Drive, Suite 3000, McLean, VA 22102.

Remember, voice mailboxes are a prime target for hackers. There is an excellent brochure from US Sprint entitled “Telecommunications Fraud in Customer Premise Equipment: How to Fight It When You Find It.” It has some tips on preventing voice mailbox fraud.

Contact your Sprint account representative for a copy or call US Sprint direct.

Strange, after our incident was uncovered and stopped, we thought of so many ways we could have prevented the thefts. Prior to the problem, we never gave a thought to the possibility of fraud. After all, our system was a “closed” (non-public) network, and we had experienced no previous fraud or theft.

As my grandfather would say: “It’s too late to lock the barn door after the horse is stolen.” But it’s never too late to implement preventative measures for the future!

See you next month! ☺

Four ‘Understanding Telecommunications’ workshops are planned

Four Understanding Telecommunications workshops have been scheduled for 1990-91.

A Fall workshop will be held in Cincinnati, Ohio, with a Winter workshop set for San Diego, Calif. A Spring 1991 workshop will take place in the Northeast at a city to be announced. The Fall 1991 workshop is being scheduled for Atlanta, Ga.

Workshops will be cancelled if a sufficient number of attendees have not been registered 30 days prior to the date. ☺
Continued investment in cable plant will not be wasted, however, even with a cellular world looming on the horizon. "We'll go through several stages of evolution before the cellular technology gets here," he continued.

Current PBX systems are limiting because they operate serially, Massey explained. "They can do only one thing at a time. Only one user at a time gets access to dial tone. Our switches do it so fast that it appears to be simultaneous, but it's not. That's the bottleneck which the proliferating local area networks will face."

Ethernet, for example, has a contention problem, he added. "You listen to see if anyone else is transmitting. If you don't hear anybody, you transmit. But if someone else decides to transmit at the same time, you both have to back off and try once more, hoping that you don't collide again."

Multiple servers in a Token Ring system solve the problem temporarily, Massey commented. The device that operates a server is a serial device. Sooner or later, they'll get bogged down.

"Your biggest problem is going to be managing the networks to maintain the flow of information," he pointed out. "On today's interlinked networks, a device on one network can shut down all of the networks. This is the nightmare of the information systems manager."

Today, with mainframes, if you have a bad terminal, you can isolate it in a second, Massey explained. "When everything is networked, it could be somebody sitting in a closet in one of a hundred buildings, creating a million interrupts per second and shutting everything down."

Parallel resources will replace serial resources in the future, Massey predicted, fundamentally transforming the telecommunications industry. Instead of switching systems residing in network nodes - PBX switches, central office switches and toll switches - as the industry now insists, they will exist at the terminal level.

"You couldn't have terminal-level switching in the past, because you didn't have the computing power to do it there," the consultant pointed out. "But that's already changed. Sitting in laboratories today are desktop computers that can outperform most of today's mainframes. No matter how good your switching system is today, there is technology sitting in labs that can outperform it."

Directors of information services, if they don't change, are going to become reference librarians, Massey asserted. "It is difficult for mainframe manufacturers to tell them that, because mainframes are still the most profitable segment of the computer industry."

"How do they tell people that the power in desktop boxes surpasses that in their biggest mainframes? They don't know how to do it, but its going to happen."

"It's going to happen because 'Junior' will make it happen. 'Junior' is the generation going through school today. They're not the least bit intimidated by technology. And they're making rather substantial changes in the infrastructure as they go out into corporate America, changing the way corporate America does business."

"Historically, you couldn't get an application automated unless you could get systems support from the mainframe. Now Junior comes in with a project, and he's told to wait two or three years for the information services resource. But Junior says I can do it next week on a PC. So he brings his PC from home - the one that he used in college - and does it right there under everybody's nose."

Academic institutions tend to have even more inertia than corporations, because they are not profit making organizations, Massey pointed out.

A corporation can justify rapid changes in technology if it can help make money. Conventional management in higher education is oriented
From ACUTA Headquarters

My— how time flies when you’re working for ACUTA! It seems like only yesterday that we were in Orlando, and today we’re in St. Louis planning for the 1991 Conference. There will be several other exciting events and activities taking place in St. Louis just prior to our Annual Conference. The VP Fair— the biggest event in St. Louis all year— will conclude a day of festivities celebrating the 4th of July with one of the largest fireworks displays in the world. You’ll hear more about the St. Louis Conference, including the VP Fair, in the coming months.

Before we launch the new fiscal year under our new President, Bill Orrick, let’s wrap up a few items of interest at Orlando.

First, hats off to the Program Committee for an interesting array of topics. We need the continued involvement and suggestions of the membership for new ideas as well as what’s hot and what’s not at your institution.

Second, the excellent presentations by institutional members of ACUTA are to be applauded. By the way, the critiques of these presentations were a tad higher—4.3 to 4.2 of a possible 5—than those of the professional speakers and consultants. This is not to take anything away from the other speakers; several had a perfect rating of 5.

Third, the vendors are to be commended on their exhibits’ variety and depth of information, complementing our educational sessions, and giving attendees much insight into future technology.

Fourth, the excellent turnout of “first timers,” who enthusiastically participated in their own contest, added zest to the Conference. We hope they will become “regulars” at many ACUTA events.

And last, the overall conference setting and support activities were excellent— from the Buena Vista Hotel staff to Church Street Station on Monday night and the entertainment during the week. Who could forget the nuns, “three sisters from the Order of Perpetual Pain” and the most discussed “first timers,” Franklin Bombgardner and Twylla Uetzglott? (Call a friend who attended in case you didn’t go.) The performance by the Zanadu dancers at the banquet was tremendous and capped off a great week of educational sessions and family fun.

While the attendees’ overall rating of the conference was the highest ever, there were several constructive criticisms and a few negative ones. Next month, I’ll address each of them.

Till then, take a moment to write an article for the newsletter, or maybe just a note to the editor.

As Madonna (and my daughter) says, “express yourself.” Sometimes you can’t “air it all out” to your boss, but you certainly can with us.

Tomorrow’s challenge

(Continued from page 10) toward cost control.

“You do have the profit motive, however, if you have student resale,” he noted. And he urged telecom administrators to capitalize on resale potential to finance advances in technology.

Dr. Ray Steele of Ball State University observed in his keynote conference address that institutions must modernize if they are to remain competitive and survive. The schools that offer the most up-to-date electronic information environments are seeing their enrollments rise, he noted.

The second biggest problem confronting telecommunications is bandwidth, Massey declared.

A 62.5 micron fiber can transmit 10 terabits (trillion bits) of information per second, the laboratories estimate. All the information transmitted in the U.S. today during a busy hour—both voice and data—if digitized, would not equal one terabit. “Because fiber is the best medium for transmitting, you should put in fiber whenever you make plant changes. Most people already do.”

Optical star couplers—fiber with a star coupler than extends into a coax connection—are already being used in cable networks, Massey revealed. “They’ve deprecated their coax plant investment and are proceeding to replace it with fiber, using optical star couplers. We’re going to see local area networks connected with a variety of options—coax, twisted pair and fiber,” he continued. “Then we’ll see the changing of the switching systems, and it will all turn into one huge mishmash.

The ability to manage this complexity “is going to be your future challenge,” Massey emphasized. “Everybody wants the new technology, but no one wants to manage it.”

One of the great opportunities ahead for the telecommunication manager is to take the lead in this process, he said. “To manage, you don’t need to know everything about the technology. There are not enough hours in the day for you to learn it all, anyway. You’ve got to develop your managerial skills so that you can hire the technical whiz kids who will make it work.

“Your challenge will still be to manage the networks and make them work.”

“If telecom managers do not change their orientation from being technical operators to managers of people,” he concluded, “their profession could become a thing of the past.

“In the future all our machines will be talking, talking parallel, talking virtually simultaneously. We in telecommunications must be the first to lead the way.”
Telecommunications professionals are in a position to take the lead and be advocates of much needed change in the 1990s, he continued. "The information age is creating, as never before, opportunities for higher education to practice the "holistic, integrated, interdisciplinary thinking that can enhance America's competitive position in the world -- even the competitive advantage of one university against another.

"The telecommunications department has the most contact with the broadest spectrum of an academic community. A lot of people on a college campus don't want or need data communications. But there is no one on a campus who does not need voice communications. "While there is always the prospect of failure, get out front," Steele admonished. "We need some leaders who will try."

He concluded quoting Winston Churchill.

"We can never guarantee success. You can only deserve it."

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### The merits of long distance aggregation remain hot topic

Buck Bayliff, Wake Forest University Telecommunications Manager, has been getting "three to four phone inquiries a day" from members since the July ACUTA News was published.

Calls also have come from "aggregators wanting to take issue with my comments in the newsletter," he said. "I didn't condemn aggregators across the board. But I stand by my comments advising caution," he added.

"Our athletics department has an agreement with an aggregator who will contribute to Wake Forest sports programs, based on the number of customers the athletic boosters can sign," Bayliff explained. "But the Wake Forest Telecommunications Department has not endorsed any aggregation program."

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### Positions Announcements

**Indian University--Purdue University of Indianapolis**

**Director, Telecommunications**

Direct IUPUI telecommunications units, liaison with university users and suppliers, lead and direct merging of all current and future communications technologies. Degree in related field, five years of experience required.

Send letter of application, resume and salary requirements to:

Marcia Combs, Human Resources Administration, IUPUI-Indianapolis, Union Building Room 340, 620 Union Drive, Indianapolis, IN 46202-5168.