ACUTA eNews November 1998, Vol.27, No. 11
From the President
Buck Bayliff
Wake Forest University

Student Paper Competition

Think about this: You could have a major impact on someone's career. As we invite entries for the third annual ACUTA Student Paper Awards, we ask all members to encourage students to enter this year's competition. That vote of confidence from a successful professional may be the very thing that leads to a first-, second-, or third-place win and launches a career in telecommunications! In addition to recognition for the school, prizes for individuals include cash and all-expenses-paid trips to Nashville for our 28th Annual Conference. And to think—it might be just a word of encouragement from you that makes it happen for someone on your campus!

Most of the rules remain unchanged. Entries must be the work of students enrolled in a degree-granting program with a component of telecommunications in their personal degree plan. The topic must be relevant to campus telecommunications. Entries must be received by April 2.

Leading the student papers task force this year is ACUTA president-elect, Tony Mordosky. The competition will again be sponsored by Telesoft Corporation. Information will be mailed to primary representatives at all member campuses in December.

If you work with students who might be interested in entering this competition, we urge you to encourage them to begin planning their entry. If telecommunications courses are taught at your school, we ask that you make instructors aware of this competition so that they may identify students who could be interested.

More information, including copies of winning entries from previous years, is available on the ACUTA Web Site: www.acuta.org/html/paper call99.html.

University of Oregon Overhauls Two-Way Radio Systems

Dave Barta
Univ. of Oregon

Three years ago Telecom Services telephone technician Cal Hilkey witnessed a student on a bicycle career through a stop sign and run headlong into the side of a car. Cal's Telecom Services two-way radio was unable to talk to the Office of Public Safety (OPS) system so the report of the accident was delayed while someone ran to a telephone. Fortunately the delay didn't prove to be critical, but it was one more reason to replace the five disparate campus conventional two-way radio systems with one consolidated system.

At the urging of OPS and under pressure from changing Federal radio frequency regulations, Telecom Services undertook a review of the campus two-way radio systems. Then, with the approval of all the campus radio users, we began building a new 450 Mhz UHF truncking radio system which would allow them all to communicate with each other when they want to, but without stepping into each other's conversations and

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President's Message
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coming at a very fast pace. Recently BellSouth and US West announced that they would begin to assess access charges on the long-distance traffic carried by IP telephony providers. Does this mean that they are concerned about lost market share and are taking early steps to curb the loss?

I can't tell you how this will affect your business, but there is sure to be some effect—possibly major and possibly sooner than you imagined. How can you prepare for this change? 1) Read as many of the trade journals as you can. 2) Stay in touch with your vendors. 3) Watch for information from ACUTA about an upcoming teleconference and sessions in New Orleans. 4) Network with your peers either in person or via the ACUTA listserv.

Whatever course of action you choose, VoIP is technology you cannot afford to ignore. It will certainly be the next issue to drive prices downward—thus eroding profit margins even more. So learn as much as you can, share ideas, and be prepared for change.

Until next time, stay in touch!

Overheard on the Listserve

We are in need of replacing our present 20-year wet-cell batteries backup. I was wondering what the latest recommendations are on current trends.
1. Should one install a 5-, 10-, or 20-year warranted battery?
2. Should it be wet-cell or gel-cell?
3. Is there anything we need to look out for?

Joel Huff, Telecom. Manager
Pensacola Christian College

I would highly recommend you try to stagger the replacement of the batteries. Think about what happens five (or 10 or 20) years from now when all the batteries expire! It is tough to budget for a big hit like that every five years or to have to go begging every five years to replace all the batteries. Better to budget for replacing 1/5 every year.

Larry Farmer, Manager
Telecom
Drew University

We just replaced our batteries earlier this year. The old “wet” batteries were originally installed in 1982, so we got a good life out of them. We replaced them with sealed, gel-filled batteries. The advantages are numerous:
1. No maintenance
2. Long life
3. Safer
4. No need for emergency acid contamination shower, eye-wash station
5. Better use of real estate (stackable on racks)
6. We can now use the battery room for other things

Anne Apicella, Assoc. Dir., Telecom
Univ. of New Mexico

We have used sealed gel-cell batteries from day one. Can't talk to you in terms of cost of these vs wet cell. Life is generally shorter, but as Anne pointed out your footprint is smaller, no need for separate room, ventilation, etc. Only maintenance is to test output which we do on a monthly basis. Ours last about 5+ years.

Tom Walsh, Mgr. of Telecom
Miami Univ.

I have asked this question before and have been told that bad batteries shorten the life of good ones. You truly shorten the life of the good batteries by running with bad unit(s) in place. If you are doing monthly cell checks and a minimum annual load test, you may be able to get away with a phased replacement cycle. We bit the bullet and built a phased contingency budget to address a total replacement need.

When working in the banking industry, I was quite surprised to find my 48-battery string which supplied power for my mainframe and telephone system had four bad batteries. The system was supposed to supply 15 minutes of time—enough for the generator to come on-line or allow for an orderly system shutdown. Unfortunately, these bad cells took our backup time from 15 minutes to about 30 seconds (not enough for the generator to come online). It doesn’t take too many bad cells to radically affect the uptime performance of your battery string.

A total replacement of your batteries allows you take advantage of technology changes (in our case our batteries were eight years old). We replaced the 48 string with 32 units. The 32 new batteries were also smaller than the old units. While this required new racks, we regained a lot of space in our UPS room.

Jack Canavera
Mgr., Telecom/Engineering
St. Louis Community College

Above all else the leader's ability to adapt to change will be a learning process. Much of the learning technology needed to fully cope with the challenges of the 21st century have yet to be developed. Nevertheless, a leader's openness to change, a capacity to take risks, an ability to experiment, keeping an open mind to new ideas and having an appetite for innovation will greatly help. This is an exciting time to be a leader.

—Dr. James Canton, 21st Century Online
"Becoming a 21st Century Leader: Prepare Today to Meet Tomorrow's Challenges"
http://21net.com/jcanton/
FTC Web Site: Information You Can Use

Looking for information on telecommunications issues? Y2K? Telemarketing fraud? These government agency Web sites are two excellent resources:

On the FCC homepage, www.fcc.gov, you'll find information about such topics as 900 number pay-per-call, area code changes, carrier ID codes, 101-XXX dialing, cramming, or recording telephone conversations, just to name a few. If you think you might want to participate in the FCC process, this site will tell you where to begin. You can find out how to file a complaint with the FCC, review the official guidelines for responding to notices of informal complaints, or read about Universal Service support mechanisms.

A wealth of information is supplied, archived, and updated, and even the commissioners themselves are accessible online.

The Federal Trade Commission has a first class site that's visually appealing, easy to navigate, and packed with information for you, your staff, and even students. Here's a small sample of the information available at www.ftc.gov:

- **Y2K Issues**

  Suggestions for responding to the year 2000 problem, suitable for communications and broadcasting companies (and their customers)

- **A presentation by Commissioner Powell before the Senate Special Committee on the Year 2000 Technology Problem, including real video and real audio**

  Commissioner Powell's statement before the Subcommittee on Oversight of the House of Representatives Committee on Ways and Means on "The Year 2000 Problem and Telecommunications Systems"

- **Telemarketing Fraud**

  According to the site, "Telemarketing fraud robs Americans of at least $40 billion a year. Through enforcement and consumer education we can reduce both the number of scams and the number of victims." This page provides information for consumers and has resource materials for educators, companies, and community organizations available for distribution.

- **Scholarship Scams**

  Unfortunately many students and their families fall prey to scholarship scams. The FTC cautions students to look for certain telltale lines such as The scholarship is guaranteed or your money back or You've been selected by a "national foundation" to receive a scholarship or You're a finalist in a contest you never entered. This site also includes information targeted to students and parents, such as "Information for College-bound Students: Don't Get Scammed on Your Way to College."

Bookmark these two sites for quick access to some very useful information.

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Univ. of Oregon

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forcing everyone to listen to radio babble they're not interested in.

Electrical engineer Larry Laitinen designed and built the new system "in-house." Initial equipment integration was completed at the low building housing Telecom Services in time for Athletics' use during home football games last year. After a new tower and electrical distribution system were installed at the lone campus high-rise, the trunking radio system was moved to its new home in the penthouse in July. This new antenna location on the campus' tallest building provides superior on- and off-campus coverage.

A voting receiver site is being installed on the other side of campus to provide two widely separated campus receiver sites for the system to reduce fading and noisy signals from difficult basement and building interior locations.

The trunking radio system provides dispatch (radio-to-radio) and telephone interconnect (telephone-to-radio and radio-to-telephone) communications for portable handheld radio and mobile radio users. The telephone interconnect is a new feature similar to a cell-phone with unique campus telephone number assignments, but is limited to half-duplex (one way at a time) communications.

More than 200 portable handheld and mobile radios have been deployed throughout the campus. There are more than 50 radio telephone interconnect users.

New features include private talk groups, priority calling, controlled interoperability with other user groups as needed, direct inward and outward telephone dialing (optional feature), telephone call forwarding from a desk phone to a radio telephone, superior coverage in campus buildings (particularly basements), and the capability to transmit pictures radio-to-radio and to computer systems with a resolution of approximately 270,000 pixels.

Maybe best of all, it was built for superior performance tailored to our campus at considerably less than half what similar size and capability systems have cost at other universities. This was achieved because Larry did extensive radio propagation tests throughout the campus and designed and built the system in accordance with LTR trunking standards in use by many (but not all) radio system vendors, instead of buying a completed proprietary system completely from one vendor.

Because the system is programmable and versatile, it also allows us to make radios available for short term rental for special events or longer term to departments who would like to use two-way radios but never wanted the hassle of owning their own system.

Reach Dave Barta at dbarta@oregon.uoregon.edu.
Board Report  October

The Board of Directors met Oct. 10, 1998. Highlights of the meeting are:
• The 1999 Annual Conference theme—“Orchestrating Change... Connecting in Music City”—and tracks were approved. Tracks include Emerging Technologies, Networks and Infrastructure; Revenue Generation and Student Services; Legislative and Regulatory Issues; Management and Professional Development.
• The final report for the Journal for the fiscal year was presented. The Journal did extremely well, generating revenues of over $30,000 in excess of the projected budget.
• A comprehensive report from the staff Event Promotion Team was presented, making recommendations regarding increasing attendance at ACUTA seminars and conferences.
• Per the Strategic Plan, each program, service, and product is to be evaluated every two years. This process was completed in September. After reviewing every evaluation, appropriate action items and recommendations were identified.
• An audio conference on Voice over IP is being planned for the near future.
• A Local Event will be held in Bloomington, Indiana, June 7-8, 1999.

Respectfully submitted,
Linda Bogden-Stubbs
SUNY Health Science Center
ACUTA Secretary/Treasurer

Each year, ACUTA celebrates excellence in higher education telecommunications through the nomination and selection of recipients of the Institutional Excellence in Telecommunications Award. In December, a call goes out for nominations for ACUTA’s most prestigious institutional award. Now is the time to begin thinking about projects that might qualify for the award.

This award is presented to ACUTA member institutions for telecommunications excellence and professionalism. The selection of winners is based on the contribution of the project, program, or service to the overall mission of the institution. The endeavor must be innovative and provide significant benefits to the institution, faculty, staff, and/or students.

In order to level the playing field, there are three award categories for small, medium, and large size institutions. Applicants are compared with their peers from similar-sized institutions.

In 1997, the nomination procedures were changed to make the application process more “user friendly.” In the first round, nominees are asked to complete a brief summary and description of their program, incorporating information on what makes the program outstanding and worthy of consideration. Self-nominations are welcomed. The Awards Committee reviews the applications and requests more extensive documentation from finalists in each of the three categories.

Applications for the award are evaluated on the basis of scope, complexity, technological leadership, benefit to the institution and key constituents, and demonstration of excellence and professionalism.

Many of us know of an outstanding project or ongoing program—either on our own campus or at a colleague’s institution—that merits consideration for this award. Benefits of participating in the process include:
• Visibility and recognition for both finalists and winners, who are acknowledged at the annual ACUTA Awards Luncheon held at the Annual Conference.

From ACUTA
Headquarters
Jeri A. Semer, CAE
Executive Director

• A chance to recognize members of your staff for an outstanding effort
• A profile of the award-winning projects in the ACUTA Journal
• The opportunity for senior university administrators to attend the Awards Luncheon and accept the award in conjunction with the ACUTA representative from the institution
• An on-campus award presentation at your institution to enhance visibility of the project, and provide an opportunity for your staff and campus officials to participate in receiving the award
• Winners receive a distinctive crystal award for permanent display, along with two complimentary registrations to the ACUTA Conference of your choice

With the change in application procedures, it is now much easier to apply for this award. I encourage you to begin thinking about an outstanding telecommunications, networking, or information technology project on your campus that you are particularly proud of. The Awards Committee, chaired this year by ACUTA Immediate Past President Margie Milone of Kent State University, will welcome your application and consider it carefully.

For more information and an application, watch your mail for the Institutional Excellence in Telecommunications Award brochure, check the December issue of the ACUTA News, or contact Lisa Cheshire, staff liaison to the Awards Committee, at the ACUTA office. She can be reached at 606/278-3338, ext. 26, or lcheshire@acuta.org.

In the near future, this information will also be available on the ACUTA Website, www.acuta.org.

Spotlight
Welcome to two of ACUTA’s newest Corporate Affiliate members:

HSA Corp provides high-speed access to the Internet and other private/public networks via cable modems and xDSL technologies. We provide full turnkey solutions including capital investment, help desk, customer service, network management, installation and marketing. David Wigglesworth, 502/515-3358

Private Cable & Wireless Cable Magazine serves system operators delivering voice, data, and video services to subscribers. Operators include educational institutions, government agencies, wireless operators, and others. Emerging technologies within wireless broadband arena are covered in the monthly magazine. Catherine Upton, 310/533-2574

ACUTA News  November 1998
FCC
On September 17 the Commissioners approved a rulemaking proposal initiating Common Carrier docket 98-170 which is said "to stem telecom fraud and to provide customers with clearer information about the fees levied by their service providers." According to Telecommunications Reports (9/21/98), there are three basic guidelines for bills sent to consumers:

1) Bills should be "clearly organized and highlight any new charges or changes to customers' service."

2) Bills should include "full and nonmisleading descriptions of all charges and clear identification of the service provider responsible for each charge."

3) Bills should contain "clear and conspicuous disclosure of any information consumers need to make inquiries about charges."

Under the current structure each bureau of the commission is responsible for enforcing the rules for the segment of the telecom industry that it regulates. To eliminate overlap and improve efficiency, the FCC has announced plans to create two new bureaus. According to Chairman Kennard, "The new Enforcement Bureau will consolidate the staff and resources dedicated to those tasks under one roof, allowing the FCC to present a 'unified enforcement direction and philosophy.'" (TR 10/5)

The Public Information Bureau will be responsible for such things as the FCC's Office of Public Affairs, National Call Center, reference offices, and Web sites. Chairman Kennard hopes to have these new bureaus in place by the end of the year; however, there are a few hoops to jump through, like agreement of the full Commission, Congress, and the union that represents FCC employees.

Y2K
Almost every publication that I have reviewed in the past month has had something about potential problems with the year 2000 and computer programs. One would think that the government is just getting a good start on looking at or possibly starting to solve the problem. The House Banking and Financial Services Committee is concerned that the banking industry is heavily dependent on telecom and power companies in tackling the Y2K computer problems. Banks are "reporting difficulties in obtaining year 2000 status reports from local telephone and power companies, both of which are critical to the uninterrupted delivery of financial services in January 2000." (TR 9/21)

The Year 2000 (Y2K) Information and Readiness Disclosure Act (S 2392), passed by both Houses of Congress and sent to the President, grants companies a "safe haven from legal liability for disclosing information about their efforts to ensure that their computer systems can handle the year 2000 date change." (TR 10/5) In addition, a new Network Reliability and Interoperability Council is looking cooperatively into potential problems with Y2K plans. This is a reincarnation of a council that was first established in 1992 and reports to the FCC. The first meeting of this group was 10/14.

Telecom & Network Security Review (10/98) notes that the U.S. Government expects to spend $5.4 billion to update its computer systems to handle problems associated with Y2K.

ACUTA members must realize that the testing they do has to cover systems that they do not have control over. First be sure that the systems on campus are properly set up for Y2K and then test everything that you can coming into and going out of the campus.

Qwest and Associates
The FCC has recently decided not to allow a Bell operating company to market other carriers' inregion interLATA services. This "has deepsixed the agreements" that Qwest had made with U.S West and Ameritech. Qwest and U.S West have asked the U.S. Court of Appeals in Washington to overturn the FCC order rejecting agreements under which U.S West and Ameritech Corp. would have marketed Qwest's interLATA services. (TR 10/5, 10/12)

National Directory Assistance
To save some money 411 Newsletter (10/12) suggests calling the local LEC and asking if they maintain a national directory-assistance database. If they do, and if it is updated reasonably often, then all directory assistance calls should be routed direct to the LEC, who is usually less expensive. Some directory assistance calls are now 75 cents or even more. Whether the LEC maintains a national database or not varies state by state. 411 also notes that you may be able to negotiate a rate with your LEC for these calls.


Emory—Not a CLEC
Emory University in Atlanta used its muscle—400,000 calls/day on 16,000 lines—to nab wholesale rates and peer status from Bell South, says telecom technology specialist Perry Eidson. Emory considered applying for a CLEC license. But it backed off when its not-for-profit status and acceptance of $115 million/year in federal funding raised too many issues, Eidson says.

"We buy off-tariff anyway. It's the best of both worlds. We'll go somewhere else if we can't get it" from Bell South. Result: Emory got a 20% discount and wrangled an agreement—after 10 years of rejection—to connect with Bell South's SS7 network, Eidson says. This gave Emory peer status, letting it route calls as if it were a CLEC, providing huge efficiencies to its 912 trunks over a 1,600-acre campus. ("In addition to the 912 local trunks," Eidson adds, "we have 48 SS7 trunks to Qwest. So we've been able to connect using SS7 technology to both local and long distance carriers.")

Excerpted with permission from 411 Newsletter, 10/20/98. For subscription information, call 888/287-2223.
Update

Positions Available
For complete details of positions available, access the ACUTA Web site. If you do not have Internet access, call Pat Scott at the ACUTA office (606/278-3338) to receive a printout of current listings. Please submit position-available information electronically to Aaron Fuehrer at afuehrer@acuta.org or to ACUTA’s homepage: http://www.acuta.org. If you post a position, please notify Aaron when the position is filled.

- Telecommunications Technical Coordinator, Univ. of Southern Maine
  Contact: Dennis Dunham, Director of Telecommunications, Univ. of Southern Maine, P.O. Box 9300, Portland, ME 04104-9300

- Senior Telecommunications Specialist, Univ. of Tennessee Medical Center
  Contact: jobs@utmck.edu or submit info to UT Med. Center, Human Resources, 1924 Alcoa Highway, Knoxville, TN 37920. UTMC is an EEO/AA/Title VI/Title IX/Sect. 504/ADA/ADEA Employer

- Assoc. Director, Telecommunications, Univ. of Central Florida
  Contact: Bill Branch, Univ. of Central Florida, P.O. Box 162500, Orlando, FL 32816-2500. Fax 407/823-5476; e-mail branch@mail.ucf.edu

- Director, Information Systems, Eastern Mennonite University
  Contact by November 15, 1998: Dr. Beryl Brubaker, Eastern Mennonite University, Harrisonburg VA 22802. Ph. 540/432-4159. brubakeb@emu.edu

- Communications Infrastructure Engineer, EDI Ltd. Consulting Engineers
  Submit resume via e-mail to dfenner@ediltd.com; via mail to EDI Ltd. Consulting Engineers; Attn: Deborah Fenner, 150 Interstate No. Parkway, Ste. 200, Atlanta, GA 30339; or via fax: 770/956-7003. No calls please.

Welcome New Members
Institutional Members
- Southern Maine Technical College, So. Portland, ME. Rick Wright, 207/799-3976. T1

Corporate Affiliates
Bronze Level
- Voice Control Systems, Inc., Dallas, TX. Brad Prizer, 972/726-1218

Copper Level
- Fore Systems, Warrendale, PA. John Bodine, 724/742-7526
- NORDX/CDT, Auburn, MA. Wayne Anderson, 770/682-6495

New Technologies
- To discourage telemarketers, Ameritech has introduced Privacy Manager service in Chicago and Detroit. The service screens incoming phone calls based on preset categories. Designated callers always get through, but an unknown caller is asked to record his or her name. The customer may choose to take the call, reject it, or play a recorded message informing the caller that telemarketing pitches are not welcome at this house. The customer can even automate the system to request that he or she be put on the telemarketer’s “do not call” list—a legally binding request. The service hangs up if the caller does not state his or her name.

- Some industry analysts predict a communications bandwidth boom, with AT&T, WorldCom, and Mindspring making major enhancements to their networks and with four other companies (Qwest, Level 3, ITXC, and Williams Communications) building “the equivalent of 80 AT&Ts” (according to North River Ventures). Whereas in 1985 it took six fibers in a fiber-optic line to broadcast a football game, one fiber today could handle 700 such broadcasts. Experts say that these developments could drive the cost of a long-distance phone call to 1 cent a minute within a year, and make possible full-fledged TV over the Internet. (USA Today 10/8/98)

- Motorola Inc. has unveiled its new Voice Markup Language, or VoxML, which enables people to use simple voice commands over the telephone to retrieve information, such as banking records, stock quotes, or weather reports, from the Web. The company plans to distribute a software development kit for VoxML, and hopes to make the new programming language an industry standard. (Wall Street Journal 9/30/98)