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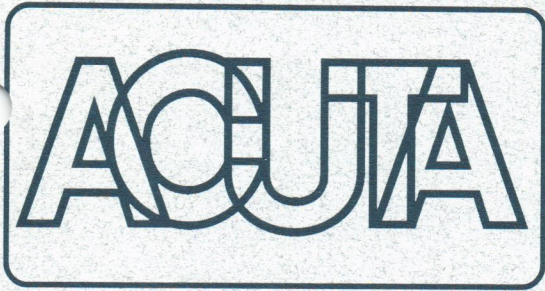
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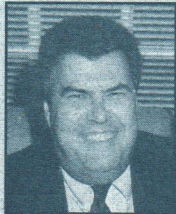
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News

ADDRESSING VOICE, DATA, AND VIDEO COMMUNICATIONS NEEDS FOR HIGHER EDUCATION

September 1998



From the President

Buck Bayliff
Wake Forest University

Buck Bayliff

Y2K ? The clock may be running faster than you think!

As if we didn't have enough to understand already, here's another TLA (three-letter acronym) that promises to cause sleepless nights and carries with it significant budget implications. Y2K (and I'll not offer another boring explanation except that it is Yours 2 Know): How will it affect your business, and what corrective steps must you undertake to protect your business and institution?

A few months ago on the ACUTA list-serve, Mary Pretz-Lawson offered an addendum that Carnegie Mellon now uses on contracts to ensure Y2K compliance. If you did not catch it, I recommend that you check it out on the archives and consider its usefulness.

Be proactive and get written signoff from your vendors that your systems are compliant. Don't just take the word of your salesperson, but (when possible) run tests on the system for positive proof.

Here at WFU we have found that our point-of-sale system in university stores and the campus card system are both non-Y2K compliant. Neither vendor can commit at this time to a firm date when a "fix" will be available. Do we run the risk of continuing to wait for their decisions? I think you know the answer to that one!

So if you haven't done so, take inventory of your systems. Check your results and remember the timepiece with the sand running through it. It is running much faster than you think. Don't wait! Stay in touch.

Is xDSL Right for Your Campus?

Does your college or university need to provide high-speed LAN and Internet access to campus buildings, residence halls, and off-campus sites? Are you currently deploying some mix of ethernet, fast ethernet, and fiber? Are some of your users still contending for a dialup modem pool?

Even if your institution is on the "100 most wired campuses" list and provides one port per pillow, there are probably some users that you can't reach. The problem may be reaching a certain building, distributing data within a building, or reaching an off-campus location. If you have standard voice telephone wiring to that location, adding one of the family of Digital Subscriber Line transmission products (xDSL) to your "toolbox" of solutions may be the answer.

The Three Flavors of DSL

- **Basic Rate ISDN:** The first DSL, ISDN has limited campus applications because it is a circuit-switched service, and the data rate (128 kbps plus a 16 kbps signaling or packet channel) is too low.

- **High bitrate DSL (HDSL)**

HDSL is used by telephone companies to provide 1.544 Mbps symmetric T1 service over two pairs of voicegrade telephone wire, at distances up to a little over two miles without repeaters. HDSL can also be used in campus applications, in which case the limitation to T1 data rate, and separation between net-

work and CPE equipment may become artificial and unnecessarily limiting. Some refer to HDSL equipment that operates over one pair, runs at other than T1 rate, incorporates CPE functionality, and/or coexists with voice telephony on the same pair as Symmetric DSL (SDSL).

- **Asymmetric DSL (ADSL)**

ADSL was originally developed to allow telephone companies to deploy video-on-demand services to residential customers simultaneously with existing voice telephony on the same pair of wires. More recently, the focus has been on delivering high-speed data services. ADSL is asymmetric because it delivers a higher bitrate to the end user than it does back to the network. This makes it ideal for applications like Web browsing, downloading files, distance learning, and client/server.

ADSL also offers excellent rate/reach performance, the ability to coexist with voice telephony (POTS) on the same pair of wires, and low cost due to competition and economy of scale.

Both HDSL and ADSL share two caveats: The central site and remote "modems" must connect directly to the copper pairs, rather than going through the voice switch like voiceband modems, and there must be no load coils on the pairs. The distance between the two modems

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xDSL

Continued from page 1

is also limited, to 9,000–12,000 feet for T1 rate HDSL, and to 15,000–18,000 feet for ADSL, depending mostly on wire gauge but also on factors such as bridge taps and crosstalk. Within buildings, and between campus buildings, these issues can usually be ignored. They may need to be considered when trying to reach off-campus buildings.

Many colleges and universities have a telephone switch on campus, which once was (or still is) operated by the local telephone company. If the school owns and operates the voice switch and wiring, you are in an ideal situation to use ADSL on campus, especially if data networking equipment can easily be located near the switch and connected to the campus data networks.

If the switch is on campus but is operated by the telephone company, it may be possible to work together on a custom ADSL-based network. Even if

telephony service is provided from an off-campus telephone company central office, it may be possible to utilize ADSL, subject to distance limitations and the relationship with the phone company.

HDSL is typically used for individual point-to-point links. There are four main ADSL deployment architectures currently being used on campuses:

- Central site to remote building
- Central site to each room
- Within building
- Off campus

HDSL equipment designed for deployment by telephone companies typically uses two pairs, runs at the 1.544 Mbps T1 rate, and provides a DS1 interface to a customer-owned CSU/DSU. There is also HDSL equipment intended for campus deployment by end users, with more flexible rates, single pair operation, and integrated datacom interfaces like V.35 and 10BaseT to eliminate the need for external equipment like CSU/DSUs and one-armed routers.

ADSL systems tend to fall into two categories, depending on whether they include an integral ATM multiplexer or not. The systems with integral muxes are called DSL Access Multiplexers or DSLAMs, and they are best suited to large deployments (more than 100 lines from one location). DSLAMs tend to have better physical density, and the single multiplexed “uplink” to the network tends to be more manageable than lots of individual ethernet connections. On the other hand, DSLAMs usually require the uplink to be ATM at a minimum of DS3 (45 Mbps) or OC-3 (155 Mbps), which may be difficult to justify for a small system. In this case, a non-multiplexed system configured as a rack of managed high-speed modems with individual 10BaseT interfaces may be a better choice.

Thanks to Westell WorldWide Services, a manufacturer of xDSL products, for this information, which is condensed from a white paper available at no charge. For information specific to your campus, contact Westell at 630/375-4114. Visit them at www.westell.com/wwwcorp.

Delegate It!

For all of us who are not superheroes, learning to delegate is critical to our success as a manager. But even delegation requires some skill. Here are some common sense tips to help you delegate responsibilities in such a way that you boost team spirit, improve morale, and create growth opportunities for your staff.

- **Hire selectively.** As you build your staff, make a high work ethic and positive attitude important priorities.
- **Match the person to the task.** Know your staff well enough that you can identify their talents, strengths, and weaknesses.
- **Build confidence** by assigning low-risk, high-success-rate projects first.
- **Make it clear.** When you describe the assignment, use familiar vocabulary and terminology. Ask for a summary of the assignment in the delegatee's own words when you have finished.
- **Let go.** After you've assigned a task or project, trust the person to whom you've given it to get it done. Coach, if necessary, but even if you know you could do it better yourself, resist the urge to take over.
- **Encourage creativity.** Allow your staff the freedom to put their own spin on a project. Remember that not everything has to look like your work.
- **Build in a reporting process.** Schedule regular checkpoints to increase your chances of meeting deadlines.
- **Give it relevance.** Relate this assignment to other projects or to the mission of your department or institution.

A good resource (from which some of these ideas have been taken): *Time Tactics of Very Successful People* by B. Eugene Griessman, McGraw-Hill, Inc.

Join us for ACUTA's Fall Seminars in

October 11–14



I. Managing and Engineering Enterprise Networks

II. How Telecom Supports Student Services, Including Security

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A Commitment to Service

*Margie Milone, Kent State University
ACUTA Immediate Past President*

Throughout the past year as ACUTA president, I have given particular emphasis to promoting and encouraging volunteerism. When ACUTA's Board of Directors undertook the revision of our strategic plan last year, we not only included action items related to volunteer service, we also incorporated a commitment to community service into our new mission statement.

We are not alone in recognizing the importance of giving back to our communities. At the American Society of Association Executives (ASAE) annual conference in August, ACUTA's Executive Director Jeri Semer had an opportunity to speak personally with keynote speaker General Colin Powell. General Powell currently serves as chairman of "America's Promise: The Alliance for Youth," a nonprofit organization dedicated to creating a supportive environment for disadvantaged youth to achieve success.

Among many other programs, America's Promise has created "Groundhog Job Shadow Day" when adults are encouraged to work with local organizations such as Junior Achievement to invite a child to shadow them throughout their workday, giving that young person the exposure to skills needed for work opportunities in the given field. Hundreds of associations and their members throughout the United States will be participating in the second annual event on February 2. We encourage you to offer job shadowing at your institution with a local community group in your area.

Looking at the results of our e-mail survey in June, I'm proud to report that many ACUTA members have made significant contributions to a variety of extremely worthwhile activities. The 112 responses received so far report serving more than 38,000 hours per year, and I think that's just the beginning. Let me give you just a few examples.

- At ACUTA's conference in July, Whitney Johnson, who retired from Northern Michigan University a few years ago, was honored with the Bill D. Morris Award. For the past five years, Whit has spent 40 to 50 hours each month reading and researching materials which enable him to produce the monthly column on legislative and regulatory affairs for our newsletter. Also setting Whit apart as a special person is his commitment as a volunteer in his community. He has been actively involved in the United Way, serving on the board for Marquette County for the past twelve years. He has also served on the Boy Scout board for 18 years, during part of which he was president of the Hiawathaland Council. He also enjoys his work as a volunteer librarian at the Marquette Family History Center.
- A Berea College member puts his experience in the Public Safety Division to good use as he volunteers with the American Red Cross.
- Several individuals from the telecom department at the University of Missouri at Columbia have volunteered with the local vocational high school for many years, encouraging students through their involvement with the Columbia Career Center.
- An Illinois College of Optometry member uses his skills to assist with telecom, electrical, and computer-related projects at Wheaton College's Honey Rock Camp. He says the experience has given him a different perspective on life and work.
- A University of Kansas ACUTA member serves on the advisory board for the Performing Arts Center. She says



As a member of the ASAE Board of Directors, Jeri Semer had an opportunity to meet General Powell at a reception in August. General Powell's presentation regarding "America's Promise" at the ASAE annual conference was received with a standing ovation and a commitment from ASAE to support this program by encouraging its member associations to participate.

... serving as the campaign chair for fundraising activities allowed her to meet a diverse group of people and learn more about the importance of the arts to young adults. It was, in her words, "a mind-expanding, consciousness-raising experience."

- Participation in Promise Keepers has helped another member to be more team oriented in his job at New Mexico State University.
- A member from SUNY Health Science Center at Syracuse says teaching the youth at her church has improved her listening skills and has been a real confidence builder.

If you are not presently giving back to your community in some way, I urge you again to investigate how you can get involved. Volunteering allows you to explore a new area of interest. It can enhance your leadership ability. It may require that you use a set of skills you don't ordinarily use—you may even discover a hidden talent! You may never know how far-reaching your impact as a volunteer has been, but when you put some heart into it, you can be sure you will come away a better person.

Journal Topics for '99

The Publications Committee has determined the focus for the *ACUTA Journal* for 1999. If you have a story to tell, especially if it relates to one of these topics, contact Pat Scott, ACUTA Communications Manager, at 606/278-3338 or pscott@acuta.org. Showcase your campus with a story in the journal! (Editorial assistance is just a phone call away.)

Spring: Leveraging the IP Network

Using actual case studies and expert testimony, this issue focuses on how colleges and universities can leverage the Internet and private IP networks to reduce costs and enhance services on campus.

Summer: Voice, Data, and Video Convergence on the Web

This issue explores how colleges and universities can exploit the Web to enhance business operations, support research, and expand distance learning, and considers the impact of voice, data, and video Web traffic on our networks.

Fall: New Opportunities in a Competitive Regulatory Environment

This issue examines such topics as physical and virtual colocation, the pros and cons of becoming a CLEC, local competition, and local number portability as well as regulatory changes which impact pricing.

Winter: Wireless Technologies

What is state-of-the-art in wireless technology? How can your campus use new technologies to improve the quality of education and service? This issue considers this and more.



On the Move...

After working at **SUNY Canton** for 12 years as Director of Telecommunications, **Jim Prentice** has retired and moved south.

Pam Iacoe from the **University of Tulsa** has accepted a position in industry and leaves TU for what she says was a "quite a surprise but a wonderful opportunity."

Preparations are underway for the Fall Seminars in Dallas, with two important topics planned: Managing and Engineering Enterprise Networks, and the ever-popular Student Services.

At the recent College Business Management Institute sponsored by SACUBO and the University of Kentucky, much of the hallway discussion was about campus-wide systems and networks. Many institutions are currently implementing campus-wide systems, and many more are in the planning stages. Some of this activity was prompted by the need to be Y2K compliant, but the underlying need is clear for unified systems that provide widely distributed access to information by the people who need it in order to function.

If this trend hasn't hit your campus yet, ACUTA can help you to be prepared.

The telecommunications and network services staff is being called upon to ensure that the network infrastructure is in place to support these systems, and also to support expanded student expectations for networked services. The Dallas seminar will address many critical issues, including:

- How to design a scaleable, single, university-wide network capable of transporting voice, data and video
- Moving to a frame relay network
- ATM and SONET, and why they may become the primary backbone in your future
- Fiber to the desktop considerations in a campus environment
- Meeting student expectations for on- and off-campus access to the Internet and other network services
- The implications of charging students for network services

The Student Services track will focus on identifying the traits of tomorrow's students, and will help you anticipate their needs and demands. Experts from the college admissions counseling and campus security professions will share their insights on how telecommunications professionals can support student needs today and in the future.

From ACUTA Headquarters

Jeri A. Semer, CAE
Executive Director



Safety and security are hot topics not just in campus communities, but also in the press. When an incident occurs, institutions can be subject to tremendous negative publicity. The seminar will point out ways that you as the telecommunications professional can put systems in place that will help prevent problems, or add to responsiveness when an incident does occur.

Other student services on the cutting edge will also be covered. Here are the highlights:

- Who are tomorrow's students, and how can technology services help recruit and retain them?
- What steps can you take to enhance safety and security using technology? You will learn how your telecom department can improve safety and help prepare for emergencies.
- How can you structure cellular or PCS contracts to meet staff and student needs and generate revenue?
- In joint sessions with Track I, you will learn how to address student expectations for networked services and discuss options for charging students for network services. Learn from ACUTA colleagues who have successfully overcome objections and begun generating revenue to help support network services.

Senior administrators expect you to be an expert on these key issues, and the Fall Seminars have been designed to provide the information you need to stay ahead of the curve. Join your colleagues in Dallas to hear the latest from top presenters, and to learn from other ACUTA members who have developed solutions that might work for you!



DC at a Glance *Whitney L. Johnson*

Political Donation \$\$\$

Telecom industry organizations gave congressional candidates nearly \$10 million during the last two-year election cycle, according to *Telecommunications Reports* (7/27/98), and contributions in the current election cycle have increased. While the numbers included in the article do not tell the whole story, they indicate that the party split was about 65% to Republicans and 35% to Democrats.

Budget Bill funding the FCC

In July the Senate approved S2260 by a vote of 99 to 0. This bill contains the Commerce, Justice, and State (CJS) fiscal year 1999 appropriation and includes funding for the FCC in the amount of \$197.9 million, an increase of \$11.4 million over last year. The House bill, passed by a vote of 225 to 203 a couple weeks later, funded the FCC at a lower level, \$181.5 million or \$5 million below last year. (TR 8/10)

The Senate bill included amendments designed to combat Internet gambling and pornography, delay copyright fee hikes for satellite TV providers, and change the federal-state joint board on universal service, none of which were included in the House bill. Differences will have to be worked out by a House-Senate conference committee after the August legislative recess.

National 911

The House Commerce Committee has approved the Wireless Communications and Public Safety Act (HB 3844) and the Senate is expected to act on a similar bill fairly soon. This bill would require the FCC to establish "911" as the national emergency telephone number for wireless and wireline services, and it would provide some funding for states to expand public safety infrastructure for wireless E911 services that identify caller location. The bill has a couple of provisions: It would fund a five-year, \$10-million study of the links between cell phone use and brain cancer, and

prohibit using information obtained through the E911 system for purposes other than locating callers needing emergency services without the subscriber's permission. (TR 8/10)

How about 211?

The FCC has asked for comments on a joint petition by several organizations for assignment of the abbreviated dialing code "211" to access services that provide free information and referrals to community service organizations. Petitioners include United Way, the Alliance of Information and Referral Systems, and others. (TR 8/10)

It looks like one more detail to plan for on the campus PBX.

Supreme Court

On Tuesday October 13, the Supreme Court plans to hear oral arguments related to the ruling by the Court of Appeals for the Eighth Circuit overturning the core pricing provisions and other aspects of the FCC's Common Carrier docket 96-98 carrier interconnection order. This should be interesting.

Internet Tax

Should there be a tax on the Internet and how soon should it be applied are questions being considered in congress. Bills under discussion in the Senate would have a six-year, three-year, or two-year moratorium. Different versions have been approved by the Senate Finance Committee and the House, so we should expect more action in the Fall. Internet taxes may be here soon.

Universal Services Administrative Co.

This is a consolidation of the three companies that the FCC set up to control the three segments of Universal Services funding, but all is not going smoothly in this consolidation. Some support the idea but consider salary caps "unlawful and wholly inappropriate to a private corporation." An interesting criticism since they are corporations set up by the FCC.

Board Report

The Board of Directors met by conference call on August 6. The following are highlights of the call:


- Board Liaisons to the Committees for the upcoming year were assigned: Membership ... Linda Bogden-Stubbs Vendor Liaison Dawn Lotz Program Anne Apicella Marketing Maureen Trimm Publications Bill Brichta Legislative/Regulatory Marianne Landfair & Tony Mordosky

- The agenda for the upcoming meeting for the Board, Committee Chairs and Lexington Staff was discussed. The focus of the meeting will be to review the Strategic Plan and evaluate the progress made toward achieving our objectives and goals.

Respectfully submitted,

Linda Bogden-stubbs

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



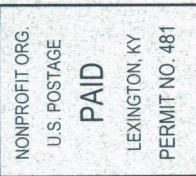
Spotlight

Welcome to two new Corporate Affiliate members:

Proteon LAN Products by Microvitec manufactures a complete range of Ethernet and Fast Ethernet networking products as well as wireless data links at speeds up to 155 Mbps. A special discount program for ACUTA members in now in effect. *Jill Tierney, 905/238-8822*

Prestolite Wire Corporation is a worldwide leader in high performance telecommunications networking copper and fiber optic products, technology design, and services. Visit us soon at www.prestolitewire.com or call *Cindy Rauner, 308/254-5310x573*.

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.**

- **Senior Network Analyst, Montana State University, Bozeman, MT.** Contact: Bozeman Employee Relations and Services, 406/994-3583 or email zpn7001@montana.edu. Access the Web site at www.montana.edu.msinfo/jobs

Welcome New Members

Institutional Members

- Augustana College, Rock Island, IL. Walter Stegemann, 309/794-7161. T1
- Houston Comm. Coll. System, Houston, TX. Michael Piwetz, 713/718-8810. T4
- Loyola Marymount Univ., Los Angeles, CA. Monique Gums, 310/338-7715. T3
- Marymount Univ., Arlington, VA. Elliott Bray, 703/284-5950. T2
- St. Lawrence Univ., Canton, NY. Greg Stahl, 315/229-5918. T1

Corporate Affiliates

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- Bell Canada, Mont Royal, Quebec. Johanne Laferte, 514/343-4183
- Hyperion Communications, Nashville, TN. Richard Crook, 615/263-1160
- Telecommunication Systems Management, Inc. (TSM, Inc.), Albuquerque, NM. Liz Sulick, 505/342-0375
- WebTV Networks Inc., Mountain View, CA. Gary Lieber, 650/614-2715

Virtual U

The state of California has privatized its virtual university, turning it into the California Virtual University Foundation. The CVU Foundation includes the state's main university systems—the University of California, California State University and the California Community College organization—and several high-tech companies such as Sun Microsystems, Cisco Systems, Pacific Bell and Oracle.

The virtual university, which many see as the future of higher education, has been developed in response to circumstances such as demographic changes, the importance of discovering new ways of serving students at a variety of levels and with a broad set of educational goals, close ties between the national economy and advances in information technology and telecommunications, and rapid changes in a knowledge society that depends on and benefits from technological development.

For more information, access their Web site at www.california.edu.

Course: Antitrust in Telecommunication Markets

The third annual course on Antitrust in Telecommunication Markets, co-sponsored by the University of Wisconsin Law School and the Wisconsin Public Utility Institute at the University of Wisconsin-Madison School of Business will be held Oct. 19–21 on the Madison campus. For details call Kyra Sido, 608/263-4180 or e-mail fk Sido@facstaff.wisc.edu.

ACUTA Conference Speakers on the Web

The keynote address and general session presentations from the 27th Annual Conference are now available from the ACUTA Web site. See and hear James Canton, Jeff Linder, and Carol Kinsey Goman just as they were in San Diego from your own computer. Due to technical difficulties, the presentation by John Powers is available in audio only. Go to www.acuta.org, then follow instructions after clicking on "What's New."



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