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ACUTA Strategizes for the Future

As I reported in my August column, the September Board meeting was planned as a strategic working session designed to begin to:

- Identify those elements of leadership that are critical to you and your campus
- Develop specific programs to address those elements of leadership we identify
- Integrate the programs into ACUTA's strategic plan.

This month I would like to share some of the results of that meeting which included the Board of Directors, committee chairs, and the ACUTA staff. With the assistance of a facilitator, Pat Sanaghan, this working group spent a day and a half developing the theme of leadership with an emphasis on how telecommunications professionals should integrate leadership skills into their own positions.

As we began to structure a model that incorporates those leadership skills that will help ACUTA members be more effective leaders, we felt it was essential to identify the trends that will impact items appear on the time line more than once, reflecting differences of opinions about when a trend would become significant. Since this is all speculation, you'll see some other conflicts.

I encourage each of you to review the trends identified and their position on the time line. Once you've considered this collection of ideas, send your comments to me at mordosky@bradley.edu. Have we missed what you believe will be a significant trend that will affect ACUTA members? Are there trends on the time line that you believe will impact us much sooner or much later than indicated?

The creation of a leadership model will be an ongoing activity for the Board this year. I would note that while the group felt it was extremely important that this activity continue, we acknowledged that we should not lose sight of those things we already do well. We should balance and integrate our leadership initiative with existing programs in order to continue serving existing needs. We already deliver many programs well, such
Students will be able to select courses from multiple institutions to customize degrees
Education—Anywhere, Anytime, Anyhow
New NANP
2004
Free long distance
Separate voice telecom network & equipment will disappear
Less middle management and more teams
Identify new revenue sources
Fewer meetings in person, more video
New skill sets required for next-generation voice services
Outsourcing of technical skill becomes the norm
2005
Increased building and maintenance money and infrastructure
Downsizing
Demand for flexible work schedules/telecommuting
Greater competition for students
2006
Limited resources
Off-campus demands for courses (courses online on demand)
Mergers among institutions will be common
Growing international student base, to USA and from USA
2007
Affordability of college education
Electronic universities become common
2008
Artificial Intelligence: practical applications
Number of high school graduates starts to decline
2009
Re-emphasis on physical campus importance/value
Physical campuses begin to go away
Generation Xers will be in top administration jobs
Global communications

In Floyd's Wake

"They've still got their debts, but their assets have been washed away." That's how one financial counselor described the economic disaster in flood-ravaged North Carolina where hurricane Floyd swept away roads and trees, houses and businesses, hopes and dreams.

Most of the campuses with which I spoke recently report relatively manageable physical damage, but student housing seems to have been hard hit, and many students lost virtually all their possessions not only on campus but at home as well.

If you are in a position to assist, money is the simplest and most effective way to help. Food, clothing, and basic school supplies are also needed. Here are some folks who will be grateful for your generosity:

- East Carolina University Family Relief Fund
  200 E. First St.
  Greenville, NC 27850

- Nash Community College Flood Relief
  522 Old Carriage Road
  Rocky Mount, NC 27804

- Pitt Community College Hurricane Relief
  Hwy 11 So., P.O. Drawer 7007
  Greenville, NC 27835

In addition, you can contact your local Red Cross or Salvation Army for information about how to assist their efforts.

The Association for Telecommunications Professionals in Higher Education
152 W. Zandale Dr, Ste. 200
Lexington KY 40503-2486
606/278-3338
www.acuta.org

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ACUTA EVENTS

Winter Seminars
January 9–12, 2000
Newport Beach, CA
I. Legislative/Regulatory Update
II. Next-Generation Telemanagement Issues

Spring Seminars
April 9–12, 2000
Miami Beach, FL
I. Wireless & Other Emerging Technologies
II. Leading the Technology Organization

29th Annual Conference & Exposition
July 30–August 3, 2000
Washington D.C.

Fall Seminars
October 15–18
San Antonio, TX
I. Supporting Academic Services
II. Convergence of Voice, Video & Data

Three Win Achievement Awards

Achievement Awards are presented each year to ACUTA members, associate members, and affiliates for contributions to ACUTA, higher education, and the telecommunications profession.

For 1998–99, three people received Achievement Awards at the ACUTA conference in Nashville: Dave Barta, University of Oregon; Jane Ford, College of the Holy Cross; and Sandy Roberts, Wellesley College.

Dave was selected for this award for his tremendous contributions to ACUTA and to state universities in Oregon. During the six years Dave served on the ACUTA Publications Committee, he was involved in the launch of the ACUTA Journal, wrote and edited articles for the journal, and wrote a chapter of the book Campus Telecommunications Systems: Managing Change. He has been a consistent contributor to the ACUTA listserv, and he has been instrumental in persuading Oregon state schools to try voice over IP technology.

In nominating Dave for this award, a coworker wrote: "Dave is really a tremendous help to anyone at any institution who asks for his assistance or opinion. He works tirelessly at helping others with issues or problems they're encountering at their respective institutions."

Jane and Sandy were selected for their leadership in arranging for some 50 colleges and universities from throughout the Northeast to meet on a regular basis to pool resources and share concerns and solutions. These meetings have led to meaningful dialogue among vendors and colleges and universities in the area, and have resulted in some very positive changes in the way vendors and end users communicate and interact.

As the member who nominated these two dedicated professionals stated, "Jane and Sandy have been the catalyst for these very positive changes. They have gone beyond getting things changed just for themselves; they have taken into consideration the user community as a whole."

ACUTA commends these three members for their commitment and extraordinary service. The Achievement Award is intended to recognize those who go the extra mile, and Dave, Jane, and Sandy are to be congratulated.

ACUTA LEGISLATIVE & REGULATORY AFFAIRS COMMITTEE

DC Update

January 2000 Deadline Approaches

Elizabeth Pesek-Shields (Univ. of Kansas, Lawrence) recently posed a question to the ACUTA listserv that generated some useful feedback and, hopefully, caught the attention of anyone who isn't "about half of the $70 million to $100 million that it annually spends on complying with the FCC’s accounting rules." (Telecommunications Reports (TR), 7/26)

Another amendment from a few days earlier would authorize the FCC chairman to "buy out" certain employees who have been with the agency for at least 12 years.

LPN Rate Reductions

include 311 access to public safety agencies in nonemergency situations, 411 access to directory information services, 611 access to LEC's repair service offices, 811 access to LEC's business offices, and 911 access to public agencies in emergency situations.
ready for 1/1/00. She asked how others plan to handle the FCC ruling mandating Handset Volume Controls on all phones as of January 1. If you’re unfamiliar with this issue, visit the FCC’s Web site at www.fcc.gov and read up on the Telecom Act of 1996. In a nutshell, Sec. 68.66 says that as of January 1, 2000, all telephones, including cordless phones manufactured in the U.S. or imported for use in the U.S., must have volume control in accordance with Sec. 68.317. There are certain specific exceptions, and existing telephone sets are grandfathered in so that they do not have to be replaced or upgraded. New equipment sold effective 1/1/2000 must comply. If you are in doubt about equipment on your campus, hurry, hurry, read all about it—online.

FCC Budget 2000

Since the budget document was not signed by the President, some of the following items may not end up in the final revision. However, they are an interesting representation of congressional activity.

An amendment was added to the budget bill late in the process that would have prohibited the FCC from requiring any person under its jurisdiction to use in FY 2000 any accounting method that does not conform to Generally Accepted Accounting Principles (GAAP). The accounting systems that are required by the FCC are much more complex than would be the case under the GAAP. Some of the LECs and IXCs would like to see accounting requirements simplified. This seems to be an ongoing problem. One official from a large LEC indicated that this change would save his company about 2/3 of its FCC expenses.

The bill requires the FCC to include in its buyout plan a list of the positions and functions that are to be reduced, eliminated, and increased; the time period during which buyout incentives may be paid; the number of buyouts that the Commission plans to offer; and a description of how the agency will operate without the eliminated positions and functions and with any increased or changed occupational skill mix.

This would seem to give the FCC some needed latitude in personnel management, but just three years to qualify seems like a short employment history.

N11: What Next?

We all know what 911 is used for, but what about the other 7 or 8 options? TR (7/26, 9/13) noted that 211, 511, and 711 are seriously being considered for standard implementation.

• 511 is proposed as a dialing code for nationwide use in accessing intelligent transportation systems. It would provide local access to information about road conditions and public transportation.

• The FCC is trying to expedite the use of the 211 code as access to Telecommunications Relay Services (TRS) nationwide. This code has been in use in some areas since in 1997.

• The FCC has a petition out to use the 211 code on a national basis to access charitable organizations. If these are all three agreed upon, all of the N11 codes will be used up except 111 and 011.

Other codes and their assignments.
Integrating H.323 Video Conferencing into an Existing H.320 System

Is there any real advantage to adopting the new industry standard for compressed video, H.323, if your institution has already invested heavily in the older and very reliable H.320 technology for distance learning and teleconferencing? If so, how much does it cost? How do you make the transition, and how do you operate it?

Those were the questions that Jeff Martin, Chief Engineer for Educational Telecommunications for Western Kentucky University, sought to answer for attendees of ACUTA's 1999 Spring Seminar in Alexandria, VA. The new H.323 complements rather than replaces H.320, Martin explained. H.323 is not only smaller, it is also less expensive and easier to use than H.320, and its "packetized" data can even be sent over your campus' existing wide area network (WAN).

other users downloading large files. A "hit" diminishes either the frame rate or the video quality, Martin explained. The hits did not degrade the transmission to an unacceptable degree, however.

Installing the H.323 gateway is very simple, Martin added. The 10-Base-T connection hooks up much like any other network device, such as a personal computer. Since it is a self-contained piece of hardware, the gateway mounts in a standard 19-inch equipment rack. Inside the gateway is the "gatekeeper" which controls who is allowed to connect. When an H.323 end-user system is being setup for the first time, the teleconferencing program usually requests the gatekeeper's IP address. This is inputted along with other operating parameters, such as bandwidth.

After an H.323 unit is configured, connecting to the gateway is as simple as dialing a phone number, according to Martin. The same would apply for connecting to any other H.323 unit on the network. The gateway's V.35 port can connect to either a video codec or to a video conferencing switch such as WKU uses. If a gateway includes an optional ISDN connection, it can be connected to ISDN termination equipment, such as an inverse-multiplexer.

While focusing on the video aspect of distance...
Thanks to its new H.263 algorithm, H.323 video offers better quality at lower bandwidths while keeping the traditional H.320-H.261 algorithm. There is no need to rip out your present H.320 system and install a totally new one to enjoy the enhancements of H.323, however. H.323 complements rather than replaces H.320. Martin pointed out. "With the addition of an H.323/H.320 gateway, essentially a hardware device and its enabling software, your H.320 systems can be connected to H.323 systems," he said. "You won't have to run new lines or purchase high-cost equipment. The only thing you need is the gateway."

H.320 hardware usually consists of a proprietary codec (coder-decoder box) that connects to leased T-1 or ISDN lines. The cost, not counting cameras, microphones, and monitors, runs about $35,000. H.323 units are usually much cheaper, according to Martin. A typical H.323 system comes with a special hardware card installed in a high-end PC running on Windows NT or 98. The cost of the system runs close to $10,000.

Special audio hardware can be added to enable a standard H.323 system to serve a large classroom. (WKU is currently testing a small H.323 unit in a large classroom setting.) The gateway takes H.323's packetized video "data" from a 10-Base-T port and converts it into "streaming" data through either a V.35 port or an ISDN connection. Thus, interactive, real-time, two-way video can then be transmitted over a WAN, through the gateway and onto traditional connection schemes such as ISDN or T-1 lines using conventional 56K to 384 Kbps rates to H.320 units. "The only catch," Martin adds, "is that your WAN needs to be a pretty good one."

Martin and his WKU colleagues have tested H.323 on their campus' FDDI network and have found that one H.323 connection through the gateway will consume roughly one-third of a 10-Base-T segment. Even with only one H.323 unit operating on the WAN, the transmission encountered some "hits" caused by learning and telecommunications in his H.323 presentation, Martin went out of his way to stress the importance of audio. "Don't skimp on audio quality," he said. "Use the best algorithm that you have the bandwidth to accommodate."

WKU uses the G.722 audio algorithm instead of the G.728 that is also available with H.323 video. While G.722 requires 7 KHz as opposed to 3.5 KHz for G.728, the superior audio quality is well worth the bandwidth. "If picture quality happens to be poor or even nonexistent sometime, your distance learning class can usually go on as long as you have good audio," he pointed out. "But if the audio goes out or is unintelligible, you won't have class."

A good way to help ensure a high quality picture, Martin added, is to purchase a high quality video camera. The improved picture quality achieved is also well worth the investment in a top-of-the-line camera, he said.

WKU leases T-1 lines to send video to its 16 in-state distance learning sites. Soon that number will grow to more than 20. These locations are part of a statewide teleconferencing network known as KTTLN (Kentucky Telelinking Network) which has a goal of establishing a teleconferencing site in each of Kentucky's 120 counties. These sites include public schools and government facilities as well as universities and community colleges.

Anytime WKU sends video signals beyond Kentucky's borders, it employs ISDN lines. The state is building its own ATM network for video conferencing, and voice communication will be implemented to some extent this fall, but that's another story.

This article was contributed by freelance writer Bill Robinson with assistance from Jeff Martin, WKU.

Here & Now:
Wireless Notebooks
With an eye toward the growing number of mobile workers, notebook computer makers are beginning to offer wireless capabilities in their product lines. Dell Computer announced Aironet Wireless Communication's 4800 series wireless LAN cards for its Latitude notebook PCs in September. The 802.11-compliant cards support wireless connections from up to 300 feet from a network access point at a cost of roughly $800 per card. Dell says it will eventually expand the wireless LAN card offering to its entire line of portable products and desktop PCs. Apple has also entered the wireless market with its iBook notebook which uses a wireless LAN called AirPort. Although Apple's AirPort is priced below Dell's product, it supports shorter ranges of an estimated 140 feet.
If wireless is a technology you'd like to know more about, plan now to attend the ACUTA Spring Seminar in Miami Beach. In anticipation of that event, the Winter ACUTA Journal will focus on campus applications of wireless technologies.
From ACUTA Headquarters

ACUTA Weighs in with the FCC on Calling Party Pays Cellular Service

In our ongoing efforts to monitor and comment on proposed regulations of interest to ACUTA member institutions, ACUTA recently submitted comments to the Federal Communications Commission (FCC) on Calling Party Pays Cellular Service (CPP). ACUTA joined with the Ad Hoc Telecommunications Users Committee for this purpose, submitting joint comments with other large end users of telecom services. The FCC had requested comments on its proposal to allow subscribers to wireless telecom services to select an option that would require the calling party, rather than the called party, to pay for the airtime and other charges. Theoretically, this could apply to cellular, PCS, paging, and any other wireless telecom services.

The essence of the argument by ACUTA and the Ad Hoc Users Committee is that we are concerned that our members will face increased financial liability for telecommunications charges. We urged the Commission to adopt appropriate safeguards to allow PBXs to recognize calls to CPP numbers. We suggested that the best method for accomplishing this would be to place all CPP numbers in certain special access codes (SACs), so that PBX equipment currently in use can be easily programmed to recognize and track these calls. This would also provide a means for these calls to be recognized by users of Centrex service, payphones, and even individual residential customers. (A SAC is the equivalent of an area code, but it is not restricted to a certain geographic area. Examples of SACs are 900, 800, 888, 877, etc.)

We also called on the Commission to require complete and timely notification to consumers who place a CPP call, to ensure that they are aware that they will be charged, how much the charges will be, who the carrier is, and how to avoid the charges by terminating the call.

CPP is used in countries outside the U.S. However, our research found that, without exception, there are specific and identifiable number codes that distinguish wireless phones from wireline phones in all of the countries where CPP is in use.

If the FCC is unable to ensure that these consumer protections are available, we asked that they defer adopting CPP regulations until alternative safeguards are available to protect all consumers, including large users like universities, from unanticipated charges for calls to CPP numbers.

The Legislative/Regulatory Affairs Committee has also requested comments from Telemanagement software vendors who are ACUTA Corporate Affiliates, asking whether they plan to incorporate the ability to track CPP calls and bill these charges back to the appropriate end user on campus. Responses are currently being compiled and will be studied by the committee, and passed on to ACUTA members if any useful information is received.

While we understand the goal of wireless carriers to increase the use of their services, and the FCC's desire to foster competition among wireless and wireline carriers as a means of increasing service options for consumers at the local level, we believe that any CPP system must include these safeguards. Otherwise, both individual consumers and large customers like colleges and universities will find themselves subject to unplanned and potentially significant costs.

ACUTA's joint comments with the Ad Hoc Telecommunications Users Committee can be found on the ACUTA Web site, in the Legislation and Regulations section. Check www.acuta.org under Legislation & Regulation.
Institutional Members
- Graceland College, Lamoni, IA. David Mohler, 515/784-5248, T1
- Grambling State Univ., Grambling, LA. Winfred Jones, 318/274-6344, T3
- Siena College, Loudonville, NY. Rad Taylor, 518/783-2573, T2
- Trinity Christian College, Palos Heights, IL. Tom Vloedman, 708/239-4720, T1

Corporate Affiliate Members

BRONZE LEVEL
  Berk-Tek, an Alcatel Company since 1993, is a leading manufacturer of high performance LAN cabling, including copper and fiber-optic products. Look to us for high performance UTP cables designed to support high-speed data and voice transmissions.

COPPER LEVEL
  Comm Line provides network design, engineering, installation, and management of telecommunications, LAN, WAN, and other data networks. This includes copper and fiber optic networks for complex customer requirements of an unlimited number of lines in a wide variety of environments.
- NewSouth Communications, Greenville, SC. Allison Mertens, 864/672-5148. www.newsouth.com
  NewSouth Communications is a switch-based integrated communications provider (ICP) offering telecommunications services to businesses in the southeastern United States. Our target markets are typically characterized by high local rates, a low level of service commitment, and few alternative carriers.
  United Communications provides sales and repair of new and refurbished business voice and data communications equipment. United is now the exclusive distributor and service center for the NI14 and NI35 ISDN telesets formerly distributed by Lucent.

Positions Available

- Telecommunicaitons Specialist, University of Maine
  Contact: Review of candidates will start on October 4, 1999 and continue until position is filled. Send cover letter, resume and 3 letters of reference to: Mr. Leslie Shaw, University of Maine. Information Technologies, Neville Hall, Orono, ME 04469-5752 EO/AAE

- IT Director, ISC Networking - University of Pennsylvania
  Contact: Ms. Patricia M. Powell, ISC Networking, 221A, 3401 Walnut St., Philadelphia, PA 19104-6228 or e-mail plain ASCII text only to applyjob@pobox.upenn.edu Applications will be accepted until the position is filled.