ACUTA eNews August 2007, Vol. 36, No. 8
From the President

Walt Magnussen, Ph.D.
Texas A&M University

I am proud to be given the opportunity to lead ACUTA for the next year. I am following great leaders like Carmine Piscopo, Pat Todus, Tammy Closs, and others, making the task much more daunting. In spite of this, the support provided by the board, staff, committees, and all of the ACUTA volunteers makes the task not only manageable, but something to look forward to.

I was once told it is easy to come into the leadership of an organization that is in disarray since anything that you do will show improvement. It is much more difficult to come into an organization that is running smoothly. With this in mind, it is my intent to focus my efforts over the next year on two areas where ACUTA is already doing well, mentoring and building bridges.

What has always impressed me the most about ACUTA is the fact that ACUTA members are always looking for ways to help other ACUTA members. I would like the theme for the next year to be “Helping others to be all that they can be.” Let’s make this a year in which we focus on mentoring, not only of other ACUTA members, but of all of the hard working folks at our home institutions. More to come on this in the future.

The second part of this year’s theme is about building (or reinforcing) bridges with other associations. One of ACUTA's strengths has always been the strong relationship that it has with complementary associations. These include EDUCAUSE, ITERA (association of telecommunications faculty), ACUHO-I (housing officers), AHECTA (cable television services), and others. In the past year, Carmine has done a lot to set this course, and I would like to see it continue and grow.

Many of you have years of experience with both of these activities. I hope you will share your comments and ideas with me so that everyone will benefit from your creative input. This time next year I’d like for all of us to be able to look back with satisfaction on a year of meaningful growth.

In This Issue

1. From the President .................................................... Walt Magnussen, Ph.D., Texas A&M University
2. Tech Talk: Is This a Phone That You Want on Your Network? ....................... Kevin Tanzillo, Dux PR
3. ACUTA Resources Make Membership a Great Value
4. D C Update ..................................................... Jeanne Jansenius, Sewanee, The University of the South
5. Board Report ............................................ Riny Ledgerwood, San Diego State Univ., ACUTA Sec./Treasurer
6. IPFIX Standard (NetFlow) and IT Staff Impact ........................................ Gary Audin, Delphi Inc.
7. Check It Out: RFIs/RFPs, Job Postings, Press Releases
8. FYI: Useful Information from the Campus ................................................. Student Monitor
10. Info Links ....................................................... Randy Hayes, Univ. of Northern Iowa
11. IntraPoint Offers Grants for Emergency Mgmt. and Alert Technology
12. Welcome New Members

NextG Networks

An advanced wireless network from NextG Networks will generate revenue, improve cellular coverage, and enable new wireless services on your campus by leveraging existing fiber.

Visit us at nextgnetworks.net
Being by nature hype-resistant, not to mention personally quite “thrifty,” I wasn’t one of the people standing in line back in June for the chance to buy one of the first iPhones. But as the news reports made clear, lots of people bought them then and are still buying them now. That brings up the question of what you, as a network person, are going to do about them.

Should you, as the Gartner analyst group warned, build a wall along your network border with signs that say “No iPhones Allowed?” Or do you welcome them with open arms into your network family, in “Summer of Love” style, appropriate since this is the 40th anniversary of that Hippie-era event?

Or perhaps the best choice, as so often happens, is somewhere in the middle, with more of a wait-and-see approach.

Gartner got this debate going by saying it did not consider the iPhone business-worthy, criticizing it as weak on security and clumsy in its mode of accessing Microsoft Exchange. A wonderful consumer product it is, Gartner allowed, but declared that a “different model with different characteristics” is needed before enterprises should support and embrace it.

Since then, there has been a lot of pushback about whether Gartner was being too hard on the iPhone. Maybe they were - I’ll admit to not being qualified to make that judgment - but on the other hand, some of those pushing back are not the people responsible for operating and managing networks. The higher the stakes in terms of your network, when it comes to security and management, the more you must be wary of any new equipment that’s attaching to it.

But here’s the thing. People who work at your school have bought and are buying these new gadgets and are going to want to use them for more than fun. They may already be asking you about supporting them, or they may just start using them to access your network without even asking you. Such is the nature of the user beast.

Regardless of your opinion about the iPhone and whether you’d buy one (or instead prefer to put groceries on your table for several weeks), it would be wise to start determining now how you should handle the situation. Hopefully, you’ll have the luxury of waiting-and-seeing time. But if not, being prepared is always good advice, even if you aren’t a Boy Scout.

As always, if there are specific topics you would like to see covered in this space, please let me know via e-mail at kevin@duxpr.com.

ACUTA Resources
Make Membership a Great Value

If I were asked to single out the most important benefit of my affiliation with ACUTA, I would probably say it’s the professional networking. The opportunities that ACUTA offers to network with peers and colleagues around the U.S. are second to none. We all learn from each other as we share our experience with situations that appear on most of our campuses today. ACUTA is the only common ground for those responsible for converged communications.

I also appreciate the publications program, and I keep ACUTA publications on the top of my “to read” list, as they always hit the topics of today. The writers usually come from within the ranks of ACUTA, so they know exactly what the issues of importance are.

Ron Kovac, Ph.D., Professor/Consultant
Center for Information and Communication Sciences, Ball State University
700 MHz-Going Once, Going Twice

The 700 MHz band is going out for auction, and this could change how our cellular service providers bundle services. The FCC is setting aside a 10-MHz nationwide block that has been designated to carry open-access. Although this proposal is expected to anger cellular providers, Kevin Martin, chairman of the FCC, stated, “[W]hoever wins this spectrum has to provide...[a] truly open-broadband network—one that will open the door to a lot of innovative services for the consumer. You can use any wireless device and download any mobile broadband application, with no restrictions.”

The FCC’s current proposal would “theoretically improve access to Internet services. It has relatively stringent build-out requirements—a minimum threshold for how many people or how much geographic area can receive a network signal—meant to alleviate some of the rural-urban digital divide. In practice, though, build-out requirements are difficult to enforce.” (Washington Post, 7/16/07)

Theoretically, the winning bidder would have to allow any device or application to run on its network as long as it did not harm the network. Rep. Edward Markey (D., Mass.), chairman of the House Energy and Commerce Committee’s Telecommunications and Internet subcommittee, stated that “recent statements to the media by FCC Chairman Martin with respect to these issues are encouraging. It appears that Chairman Martin is poised to propose that certain auction winners should be required to permit unaffiliated content providers to offer services and applications to wireless consumers and for manufacturers to innovate and offer cutting-edge wireless devices in the marketplace for consumers to use with their service.” (Telecommunications Reports, 7/15/07)

The 700 MHz band could open up additional opportunities to universities wanting to develop and enhance their own WiFi networks.

iPhone Upsets Lawmakers

Rep. Markey feels that the iPhone will become an expensive paperweight if customers quit their AT&T wireless plan. The Associated Press (7/11/07) reported that Markey described the phone as a “Hotel California service. You can check out any time you like, but you can never leave—you’re stuck with your iPhone and you can’t take it anywhere.” AT&T will still charge a $175 early termination fee if customers quit their wireless plan.

Timothy Wu, a law professor at Columbia, described the cell phone industry as a “spectrum-based oligopoly...Imagine buying a television that stopped working if you decide to switch to satellite or a toaster that died if you switched from Potomac Power to ConEd.”

Traffic Pumping

What is traffic pumping? According to Telecommunications Reports (7/15/07), the FCC took action against 39 rural carriers who were allegedly blocking calls to avoid potentially inflated termination charges. Rural carriers claimed that national telcos were blocking their subscribers from reaching certain numbers that provide free conferencing and chat-line services, while national telcos stated that the small local exchange carriers were jumping out of the National Exchange Carrier Association pool in order to drive up the amount of access fees. The FCC’s Wireline Competition Bureau is investing this issue.

FTC Urges Caution on Net Neutrality Policies

The Federal Trade Commission’s Internet Task Force released its annual report on Broadband Connectivity Competition Policy on June 27. The report recommended that policy makers proceed “with caution before enacting broad, ex ante restrictions in [the] unsettled, dynamic environment” of broadband Internet access. FTC
Chairwoman Deborah Platt Majoras, while speaking at the Federal Communications Bar Association luncheon in Washington on June 27 emphasized that "policy-makers should not forget the power of the consumer in marketplaces generally and in this market in particular. Consumers believe that this is their Internet. They will not stand for anything less than access to what they want. They are a powerful and collective voice. And their message to broadband providers and everybody else today is loud and clear: They want the unfettered Internet access to which they have become accustomed."

Pew Internet & American Life Project just released their broadband Internet results and found that 47% of U. S. adults have a broadband connection to the Internet from their homes, and 15% go online using dial-up connections. (TR, July 15, 2007)

Homeland Security

The House is once again criticizing the Department of Homeland Security for failing to fill nearly one-fourth of its senior positions. "This could lead to heightened vulnerability to terrorist attack when the new administration is installed in January 2009 and the political appointees who now run the Department exit without ensuring continuity of operations...The gaping hole in Department executive resources is a homeland security issue that must be addressed and rectified immediately." Homeland Security spokeswoman Laura Keehner stated that 77% of the senior leadership vacancies are currently being filled or are under active recruitment. For a full report on their findings you may view the report at http:// homeland.house.gov/ SiteDocuments/20070709112923-81091.pdf.

Canadian News

The Canadian Radio-television and Telecommunications Commission recently released the rules for the creation and operation of their national do-not-call list. There will be no charge to the consumers to participate and telemarketers will be prohibited from calling consumers once they sign up. According to Telecommunications Reports (7/15/07), exceptions will be registered charities, political parties and candidates, opinion polling firms, general-circulation newspapers, and organizations with an existing business relationship with the customer.

Board Report

July

Riny Ledgerwood
San Diego State Univ. 
ACUTA Secretary/Treasurer 
rledgerw@mail.sdsu.edu

The Board of Directors met immediately prior to the Annual Conference in Hollywood, Florida. The Board received and discussed year-end reports from all of the permanent committees. The Board reviewed and approved financial statements for March, April, and May, noting that ACUTA is in a strong financial position with all major indicators performing very well when compared to budget and the previous year. Appointments to the Higher Education Advisory Panel, Membership Committee, and Publications Committee for 2007-08 were approved. The Board approved locations for future Annual Conferences April 18-21, 2010, at the JW Marriott Hill Country in San Antonio and May 1-4, 2011, at the Hilton Bonnet Creek in the Orlando area.

The Committee Chairs reported on their accomplishment of action items from the Strategic Plan, and issues were identified for discussion at the upcoming Nov. 15-16 strategic planning retreat. The Board also discussed current and pending collaborations with ITERA, the International Telecommunications Education and Research Association and USTA, the United States Telecom Association.

The Board received and approved a recommendation from the Executive Director that the chairmanship of the Higher Education Advisory Panel be transitioned to an institutional member of ACUTA.

The Board also discussed the status of all ad hoc committees, which expire at the end of the 2006-07 administrative year, and authorized the continuation of the ACUTA/ATIS Hurricane Preparedness Task Force and the Database Enhancement Task Force. The Board thanked the Web Site Recognition Task Force for their efforts since they were formed several years ago, and accepted their recommendation to suspend this program for the next year.

Respectfully submitted,

Riny Ledgerwood, Director
Communications and Computing Services
San Diego State University
The introduction of the Simple Network Management Protocol (SNMP) and the associated Management Information Bases (MIB) went a long way to boost the development of vendor-independent network management tools. It allows a vendor, for example HP or CA, to implement management systems for managing Cisco network switches and routers. It also fueled competition, which increased the capabilities, value and operation of the management tools. The IPFIX standard brings the same value to route and traffic analysis information. IPFIX is designed for all traffic flows, including VoIP.

**IPFIX Standards (NetFlow) and IT Staff Impact**

**Gary Audin**
Delphi Inc.
delphi-inc@att.net

---

**IPFIX Becomes a Standard (IPFIX)**

IP Flow Information Export (IPFIX) is an evolving Internet Engineering Task Force (IETF) standard. A specification that describes IP flows is documented in the Information Model, and the IPFIX protocol defines the transfer of flow data from IPFIX exports to data collection systems. The standard is designed to operate across any vendor’s routers and management applications. The IETF selected Cisco’s NetFlow Version 9 data export format as the foundation for IPFIX. The IPFIX Architecture is shown in the figure below.

![IPFIX Architecture Diagram](image)

IPFIX defines an IP traffic flow as “a set of IP Packets passing by an observation point in a network during a certain time interval. All packets belonging to a particular flow have a set of common properties.” A second definition of a flow key is: “Each of the properties that are used for defining a flow.” IPFIX offers flexible flow key and flexible flow export using a reliable transport protocol, Stream Control Transmission Protocol (SCTP). A flow record will contain:

- Source and destination IP addresses
- Next hop router’s IP address
- Input and output interface index
- Packets and bytes counted in the flow
- sysUptime at the start and end of the flow
- TCP/UDP source and destination ports numbers
- Type of service
- TCP flags
- IP protocol version
- Source and destination Autonomous System (AS) numbers
- Source and destination address prefix mask bits

The template-based format allows for extension by inserting a new field following the export packet header into which the new template record can be appended. Each template will have a unique ID that will correspond to a traffic flow ID number. This associates the template with an appropriate data record. The ID points to the fields of a specific data flow export. The template flow set creates the field types and lengths.

The applications for IPFIX include: accounting, security analysis and intrusion detection, network planning, peering agreements, traffic engineering and monitoring, data warehousing and mining, and QoS monitoring.

**Impact on the IT Staff**

Responding to VoIP performance problems demonstrates that the IT staff is reactive, not proactive. A proactive approach can prevent problems, or at least reduce the duration of the vulnerability. Being proactive means searching for problems and abnormal activity. Waiting for continued on page 6
a user to report a problem is too late. Poor management will decrease the ROI and increase the TCO. The incentives for good management are user and customer satisfaction as well as reduced costs. Good management impacts the generation of revenue, streamlines operations and controls costs. IP network and applications management must be part of a comprehensive solution. Network problems manifest themselves in two ways: Performance-affecting user satisfaction factors (delayed access or no access to services, download times, voice quality, reliability,...) and operating expense (OPEX) budget impacts for the network itself, as well as for the management systems and staff.

Using routing awareness network management tools enables the IT staff to manage the performance of more remote resources without increasing staff. Problems will be detected and solved more quickly, thereby reducing the labor required for each problem solution. The staff can predict problems and thereby reduce, or possibly eliminate, user complaints. Implementation and additions to the network will require less staff effort and reduce the late working hours that many IT staffs are forced to endure.

This is one of four blogs on this topic at www.voiploop.com. Used with permission from the author.

Check It Out:
Press Releases
Job Postings
RFIs/RFPs

The ACUTA website is a useful tool for communicating with other members, whether you’ve got some exciting news to share, a position to fill, or a project for which you need a vendor. Check the website for the latest postings frequently. Here are items that have been posted since our last eNews.

Press Releases
• IntraPoint’s Crisis Manager - Campus Edition
• Teltronics, Inc. Exhibiting at the ACUTA Annual Conference
• IntraPoint Launches Crisis Manager - Campus Edition at the ACUTA Annual Conference
• AFL Brings Packetlogic Network Traffic Management Solution to Higher Education Deployments
• T3 Telecom Software Inc. to Present at ACUTA Annual Conference
• GAI-Tronics to Exhibit at ACUTA Conference
• Mohawk Announces Versalan Indoor/Outdoor CM Cables
• Blonder Tongue to Exhibit at ACUTA
• MIR3 Demonstrates Emergency Notification Product for Colleges and Universities

Job Postings
• Chief Technology Security Officer, Western Illinois University, Macomb, IL.
• Sr. Network Engineer, American University, Washington D.C.
• Information Systems Coordinator, The George Washington University, Washington, DC.
• Director, Communication & Network Services, University of San Francisco, San Francisco, CA.
• Student Support Desk Technician, College of Charleston, Charleston, SC
• Telecommunication Systems Administrator, The George Washington University, Washington, DC
• Classroom Manager, College of Charleston, Charleston, SC
• Electronic Technician III, Georgia Institute of Technology/Office of Information, Atlanta, Ga.

RFIs/RFPs
• No new RFIs/RFPs since the July eNews. Submit yours today!

ACUTA Events Calendar

<table>
<thead>
<tr>
<th>Fall Seminars</th>
<th>Winter Seminars</th>
<th>Spring Seminars</th>
<th>37th Annual Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minneapolis, MN</td>
<td>Anaheim, CA</td>
<td>St. Louis, MO</td>
<td>Las Vegas, NV</td>
</tr>
<tr>
<td>Hilton</td>
<td>Disneyland Hotel</td>
<td>Sheraton St. Louis</td>
<td>Caesar’s Palace</td>
</tr>
<tr>
<td>Track 2. Business Continuity Planning &amp; Disaster Recovery</td>
<td>Track 2. User Communications &amp; support</td>
<td>Track 2. Staffing in a Converged World</td>
<td></td>
</tr>
</tbody>
</table>

6 eNews: ACUTA Newsletter • August 2007
In the spring of each year, Student Monitor of Ridgewood, NJ, conducts extensive research into how students are using communications technology on campus. ACUTA eNews is pleased once again to feature selected results of the 2007 survey. We appreciate Student Monitor’s assistance as we strive to provide the most useful and up-to-date information. If you would like to know more about the survey, contact Eric Weil, managing partner at Student Monitor (well@studentmonitor.com).

Use of Traditional Long Distance Calling Methods Declines

The use of traditional long distance calling methods previously used by students continues to decline. Compared to last year, direct dial has dropped once again (from 9% two years ago to 4% this year or less than one fifth of the 2003 finding four years ago), and the use of pre-paid phone cards has also dropped once again (from 4% last year to 3% this year or about one seventh of the 2003 findings four years ago). At 2%, calling “collect,” a method of long distance calling once commonly associated with college students, is now one seventh that of the 2003 finding. The Internet is unquestionably part of the fabric of student life; however, only 3% of students report using the Internet to make a long distance call.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell Phones</td>
<td>67%</td>
<td>65%</td>
<td>75%</td>
<td>71%</td>
<td>63%</td>
</tr>
<tr>
<td>Calling Cards</td>
<td>13%</td>
<td>14%</td>
<td>13%</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>Direct Dial</td>
<td>23%</td>
<td>18%</td>
<td>9%</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>Pre-paid Phone</td>
<td>22%</td>
<td>15%</td>
<td>6%</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Internet</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>Collect Calls</td>
<td>14%</td>
<td>9%</td>
<td>3%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Credit Cards</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Compared to last year, students report making 24% fewer long distance calls in a typical month and 40% fewer long distance calls compared to two years ago. We attribute this decline to two factors, (1) the simplicity of some student’s cellular calling plans that have redefined what a long distance call is and (2) the continued growth and use of e-mail.

Address Change for ACUTA Listservs

To better accommodate both listserv email and regular email being sent to the ACUTA.ORG domain, a separate subdomain called LIST.ACUTA.ORG has been created for both the telecom and VoIP listservs. As a result of this change, listserv users will need to change the address to which they address email. To send a message to the telecom listserv, address it to TELECOM@LIST.ACUTA.ORG. To send a message to the VoIP listserv, address it to VOIP@LIST.ACUTA.ORG.

The Lyris Web interfaces for the telecom and VoIP listservs have not changed, and you can access them at http://www.acuta.org/telecom and http://www.acuta.org/voip respectively. Using the Lyris Web interface will allow you to read, search the listserv archives, and post messages. The archive contains approximately 3 years worth of discussions.

If you are not one of the 1200+ subscribers to the telecom listserv, you can subscribe at http://www.acuta.org/telecom/subscribe. Likewise, you can also subscribe to the VoIP listserv at http://www.acuta.org/voip/subscribe.

If you have any questions, please feel free to contact me at afuehrer@acuta.org.
In today's complicated campus environments, colleges and universities are being forced to upgrade emergency management and alert functions to protect against all hazards.

Colleges and universities need an emergency notification system and comprehensive planning, training, and certification. Also needed is a real-time command and control capability with improved information dissemination.

IntraPoint's Crisis Manager does all this and more. If your university or college is interested in participating in our $500,000* grant program offered to qualified ACUTA members, please contact us at: ACUTA@Intrapoint.com or visit us at our website, www.Intrapoint.com.

*Intrapoint's Grant guidelines and restrictions apply.

Grant applications must be received by October 1, 2007.

--

Frequently, vendors, associations, governmental bodies, and others provide white papers and other informational documents which are announced through a variety of media sources. While some admittedly have a certain slant or opinion, others are quite objective; however, they often contain valuable information. Below are links to selected documents.

- CFI Group Call Center Customer Satisfaction Index Reports: http://cfigroup.com/callsat/ccsi_reports.htm
- CWA/Speed Matters Internet Ranking Report: http://www.speedmatters.org/pages/state.html

--

Info Links

Randy Hayes
University of Northern Iowa
randal.hayes@uni.edu
Welcome New Members

Institutional Members

Community College of Philadelphia, Philadelphia, PA. T4
Jolyn Bauer, Chief Information Officer; 215/751-8060........................................... www.ccp.edu

Texas A&M University, Kingsville, TX. T3
Val Ramirez, Assoc. Director, CIS; 361/593-5500 ................................................. www.tamu-eu

Corporate Affiliate Members

GOLD MEMBER

Internet2, Ann Arbor, MI ................................................. http://www.internet2.edu
Jonathan Tyman, Program Manager, Technology Transfer; 734/352-7099

Internet2 supports the mission of the research and education community by providing advanced
nationwide networking capabilities that promote collaboration and new discoveries in education,
teaching, research, science, medicine, the arts and beyond.

COPPER MEMBERS

Blonder Tongue Labs, Old Bridge, NJ ......................... http://www.blondertongue.com
Jerry Budge, Director, Marketing; 732/679-4000

Blonder Tongue Laboratories, Inc (AMEX:BDR) designs, manufactures, & sells products for the
acquisition, distribution, & protection of video, voice, & data transmitted via fiber optic, twisted
cable, coaxial cable, & wireless in commercial, education, institutional spaces.

Carrier Access Corporation, Boulder, CO ............. http://www.carrieraccess.com
Roger Koenig, CEO; 303/218-5707

Carrier Access provides consolidated access technology designed to streamline communication
network operations of wireless/wireline carriers, cable operators, enterprises & govt. agencies.
Our products enable customers to consolidate & upgrade access capacity & implement converged
IP / services, while lowering costs and accelerating service revenue.

Paul Gannon, Director, Finance-Sales; 724/416-2401

We are the United States' leading independent owner and operator of shared wireless
infrastructures. We help our customers efficiently cover every part of the United States with
their networks.

D & S Communications, Inc., Elgin, IL ......................... http://www.dscomm.com
Mike Bryniarski, Vice President; 847/628-4219

D&S Communications provides unused and refurbished telecommunications systems, repairs,
replacement components and inventory management systems. We currently offer the latest applica-
tions, technology, systems and products from Ericsson, Nortel, Avaya, NEC, Cisco, Adtran, and others.

Ted Cowan, Sales Manager; 403/640-3191

Guardian Telecom Inc., is recognized around the world for an extensive line of industrial
telecommunications equipment, including rugged and reliable institutional models meeting the
safety and communication needs of students, educators, and employees.

Hyperline Systems, Ottawa, Ontario ...................... http://www.hyperline.com
Evgeni Sokolov, Director; 613/736-8500

Hyperline is a manufacturer and distributor of the most comprehensive range of products available
for Structured Cabling Systems: copper cable, LAN cable, telephone cable, telecommunication
cable, fiber optic cable, coaxial cable, interface cable, industrial cable, and lots more.

OTAir Mobile Communications, Richmond, VA ........ http://www.otair.com
Jim Washok, Mobile Solutions Analyst; 804/750-2058

OTAir provides effective, turnkey, flexible, and inexpensive mobile communication services for
colleges and universities that facilitate rapid distribution of text message and email alerts, for
any purpose, to students, faculty, staff, alumni, and/or parents.

Important Information...
Useful Resources...
The Best in Professional Networking:
Invite a Colleague to join ACUTA today!