ACUTA eNews SEPTEMBER 2012 Vol. 41, No. 9

Follow this and additional works at: http://digitalcommons.unl.edu/acutanews
Part of the Higher Education Commons, and the Operations Research, Systems Engineering and Industrial Engineering Commons

"ACUTA eNews SEPTEMBER 2012 Vol. 41, No. 9" (2012). ACUTA Newsletters. 28.
http://digitalcommons.unl.edu/acutanews/28

This Article is brought to you for free and open access by the ACUTA: Association for College and University Technology Advancement at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in ACUTA Newsletters by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.
New York City, the New World Trade Center, and ACUTA

After September 11, 2001, New York City became known as one of the friendliest cities in the United States, second only to Charleston, SC. As the 11th anniversary approaches and we remember that defining day when we all know where we were, what we were doing and what we were feeling, it seems fitting to acknowledge that fact. Last month I had the opportunity to drive by the new World Trade Center, One WTC, formerly known as the Freedom Tower, and have been haunted since by the resultant vision of its architects. I invite you to see for yourselves why: http://www.wtc.com/. It is amazing how much meaning and beauty can come from such a profound tragedy.

As one of the WTC evacuees wrote after we provided shelter to her, “Some friendships take a lifetime to develop and others, like ours, are forged instantaneously.” I’ll use that as a segue to say that so are many of the professional relationships begun at an ACUTA event. Columbia CTO Alan Crosswell first learned of the University of Pennsylvania’s implementation of open source VoIP while attending their ACUTA presentation. Slippery Rock’s Associate Provost Simeon Ananou, current Chair of the ACUTA Mentoring/Career Development Subcommittee, is a veritable mentor, himself, who recently began our successful Buddy Program for first time event attendees. Verizon Principal Tamara Closs, who has been at several different universities, including Georgetown, is a past ACUTA President and is now a change leader who can also tell you the value of an ACUTA membership.

Since its founding in July 1972, ACUTA has always been known as the friendliest technology non-profit organization in higher education. When the Board, committee chairs, and staff met for a strategic planning session back in June of this year, we acknowledged that while it may be time for some new directions, we always want to respect our roots and remember who we are. The institution or the corporation may be the official member, but the benefit to the member is that we exist to keep the individual better informed, more confident, more capable, and more connected. To accomplish this, your ACUTA leaders have created a new vision for ACUTA:

“To be the premier source for connecting higher education IT leaders with ideas, innovations, and solutions; to deliver superior communications and collaboration technologies.”

continued on page 2
ACUTA architects have done a fine job of positioning ACUTA for the future, and I invite you to join us anytime, anywhere on our website, http://www.acuta.org, where you can register for our next online event, "Leveraging Technology for Human Development," with presenter Tom Marentette, Video Services Specialist at the University of Notre Dame, scheduled for Thursday, September 27, and our next seminar in Houston, Texas, on October 14 – 17, to take advantage of Voice Communications Trends and ICT Supporting the Campus – Facilities, Safety and Instruction with speakers from Gartner, Continental Buildings Association (CABA), and your college and university peers.

If you haven't been active in ACUTA online or attended ACUTA events for a while, I invite you to experience for yourself the friendliest technology nonprofit organization in higher education, where a congenial group of your peers connects for the best in professional development and networking. ACUTA guarantees you'll be satisfied. Watch for more information coming soon from the Board about more new directions for our association.

Webinar: Leveraging Technology for Human Development
September 27, 1:30-2:30 pm Eastern Time
Presenter: Tom Marentette, Video Services Specialist, Office of Information Technologies, University of Notre Dame

ACUTA is very pleased to offer this webinar that will provide a fascinating perspective for members who support researchers and campus offices that do outreach in developing countries.

When designing and implementing technology projects in the developing world, serious consideration needs to be given to using sustainable and appropriate technologies. Technologies such as solar and mobile are changing the face of information delivery in sectors like healthcare, agriculture, education, financial services and more. For example, the prevalence of mobile technology in the developing world provides a sustainable platform that community health organizations can build on using in-country resources and open-source software.

This presentation will focus on work done in Haiti using SMS for data collection, in addition to how low-power consumption ICTs are having an impact in a development context around the globe. Finally, thought will be given to long-term sustainability and local-capacity building to support Information and Communications Technology for Development (ICT4D) projects, some of which is evolving through new communities of practice in the fields of ICT4D and M4D (mobiles for development).

For more information, visit the ACUTA website at www.acuta.org

Alert: FCC Public Notice re Campus Video Systems

ACUTA members at institutions operating campus video systems should be aware of an important FCC Public Notice that was issued in August. The Public Notice reminds non-cable multichannel video programming distributors (specifically including college and university campus video-system operators) of the necessity to (1) notify the FCC if they use frequencies in the aeronautical bands in excess of certain power levels, (2) monitor for signal leakage at least once a year, and (3) in some cases (systems serving at least 1,000 subs or units) file an annual Basic Signal Leakage Performance Report. There are substantial penalties for noncompliance. Aeronautical frequencies are 108–137 MHz and 225–400 MHz, which correspond to cable channels 14–16, 25–53, and 98–99.


Any colleges or universities that operate their own campus video systems should review their operations to ensure that they are in compliance with these requirements.

This information was furnished by Kenneth Salomon at Dow Lohnes.
Information You Can Use Is Just a Click Away

In case you haven't visited the Webtorials' TechNotes site, I want to use this month's eNews to encourage you to see what you're missing. Below are the opening paragraphs from three different TechNotes posted on the site at www.webtorials.com/content/acuta.html. If you want to know "the rest of the story," by all means check this out. They have information that is highly relevant to ACUTA members, and the comments posted with each one are also enlightening and interesting. We are glad to have them as a contributor to our eNews.

• BYOD Throws Curve at In-Building Cellular Projects

   Jooine M. Wexler, Technology Analyst/Editor

   There's naturally a growing interest in getting better cellular connections in and around your office buildings. The more unwired the enterprise becomes, the more mission-critical the radio-access network (RAN) grows. The bring-your-own-device (BYOD) craze is certainly fueling the need for greater and more reliable RAN coverage and capacity.

   But sometimes licensed cellular voice and data signals don't penetrate office buildings very well or even at all. So you'll need to amplify signals from nearby cell towers or bring in your own licensed signal source, which is essentially a cell tower in a miniature form factor. BYOD is at once driving such projects while also throwing a curve ball at them.

   The conundrum is that with BYOD, employees connecting to the corporate network might be subscribed to any of a number of carrier voice and data services. This could mean you'll have to boost the signals of two or more carriers, which can get complex, expensive and more than a little political.

   (Read the rest at www.webtorials.com/discussions/2012/08/byod-throws-curve-at-in-building-cellular-projects.html)

• Prediction: UC Morphs into Social and Disappears

   Michael Finneran, President, dBrn Associates

   Having watched the evolution of unified communications in the context of overall information and communications technologies, I have come to the conclusion that "UC" as an independent offering is not long for this world. The basic capabilities that are afforded in UC will all still exist and will make users far more efficient and productive; however, they will be offered in another place and form. There are a number of things that have brought me to this conclusion.

   The team at UCStrategies.com coined the quintessential definition of UC as, "Communications integrated to optimize business processes." Deceptively simple in its presentation, these six words effectively describe the two major categories of UC applications as well as indicating its direction in the future.

   UC applications can be divided into these two broad categories:
   • UC-User Productivity or UC-U: Unified Communications tools that users adopt to improve their experience and/or results.
   • UC-Business Processes or UC-B: Unified Communications tools that are explicitly integrated into defined processes, either by procedures or automation.

   (Read the rest at www.webtorials.com/discussions/2012/08/prediction-uc-morphs-into-social-and-disappears.html)

• More Secure, User-Friendly Hotspots On the Way

   Lisa Phifer, President, Core Competence

   For users, hotspots are a double-edged sword. On one hand, these Wi-Fi networks in hotels, airports, trains, planes, cafes and other public venues deliver handy high-speed Internet access. But inconsistency and insecurity have also marred user experience and impeded usage.

   Nonetheless, NPD In-Stat expects hotspot use to reach 120 billion connections by 2015. One reason is that mobile operators are anxious to offload 3G/4G by collaborating with vendors to backfill hotspot gaps.

   Let's take a look at two closely related programs—Wi-Fi Alliance (WFA) Passpoint and Wireless Broadband Alliance (WBA) Next-Generation Hotspot (NGH)—to learn what enterprises can expect from hotspots in 2013 and beyond.

   (Read the rest at www.webtorials.com/discussions/2012/02/more-secure-hotspots.html)
How to Feed Data-Hungry Mobile Devices? Use More Antennas

Multi-antenna technology could help keep pace with voracious user demand

Researchers from Rice University have unveiled a new multi-antenna technology that could help wireless providers keep pace with the voracious demands of data-hungry smartphones and tablets. The technology aims to dramatically increase network capacity by allowing cell towers to simultaneously beam signals to more than a dozen customers on the same frequency.

Details about the new technology, dubbed Argos, were presented in August at the Association for Computing Machinery's MobiCom 2012 wireless research conference in Istanbul. Argos is under development by researchers from Rice, Bell Labs and Yale University. A prototype built at Rice this year uses 64 antennas to allow a single wireless base station to communicate directly to 15 users simultaneously with narrowly focused directional beams.

Thanks to the growing popularity of smartphones and other data-hungry devices, the demand for mobile data is expected to grow 18-fold within the next five years. To meet demand, wireless carriers are scrambling to boost network capacity by installing more wireless base stations and shelling out billions of dollars for the rights to broadcast on additional frequencies.

In tests at Rice, Argos allowed a single base station to track and send highly directional beams to more than a dozen users on the same frequency at the same time. The upshot is that Argos could allow carriers to increase network capacity without acquiring more spectrum.

"The technical term for this is multi-user beamforming," said Argos project co-leader Lin Zhong, associate professor of electrical and computer engineering and of computer science at Rice. "The key is to have many antennas, because the more antennas you have, the more users you can serve."

Zhong said the theory for multi-user beamforming has been around for quite some time, but implementing technology has proven extremely difficult. Prior to Argos, labs struggled to roll out prototype test beds with a handful of antennas.

"There are all kinds of technical challenges related to synchronization, computational requirements, scaling up and wireless standards," he said. "People have really questioned whether this is practical, so it's significant that we've been able to create a prototype that actually demonstrates that this works."

Argos presents new techniques that allow the number of antennas on base stations to grow to unprecedented scales. The Argos prototype, which was built by Rice graduate student Clayton Shepard, uses an array of 64 antennas and off-the-shelf hardware -- including several dozen open-access test devices called WARP boards that were invented at Rice's Center for Multimedia Communications. In tests, Argos was able to simultaneously beam signals to as many as 15 users on the same frequency. For wireless carriers, that performance would translate to more than a six-fold increase in network capacity. Zhong said the base-station design can be scaled up to work with hundreds of antennas and several dozen concurrent users, which would result in much higher capacity gains.

"There's also a big payoff in energy savings," Shepard said. "The amount of power you need for transmission goes down in proportion to the number of antennas you have. So in Argos' case, we need only about one-sixty-fourth as much energy to serve those 15 users as you would need with a traditional antenna."

Zhong and Shepard said Argos is at least five years away from being available on the commercial market. It would require new network hardware and a new generation of smartphones and tablets. It might also require changes in wireless standards. Those are big hurdles, but Zhong said the potential benefits of multi-user beamforming technology make it a very likely next big step for the wireless industry.

"The bandwidth crunch is here, and carriers need options," Zhong said. "They're going to pay close attention to any new technologies that may allow them to serve more customers with fewer resources."

Research co-authors include Hang Yu and Narendra Anand, both of Rice; Li Ernan Li and Tom Marzetta, both of Bell Labs; and Yang Richard Yang of Yale University. The research was supported by the National Science Foundation, Bell Labs, Alcatel Lucent and the Air Force Office of Sponsored Research.

VIDEO is available at: http://youtu.be/945wOce1mdw. More about the Argos Project is available at: http://argos.rice.edu/
Computational Thinking: Living in a Programmable World

James M. Fraleigh, Apollo Research Institute

Over the next decade, workplace automation will progress well beyond car-building robots. Robotics technology will be applied to logistics and supply chain management, and farms will integrate weather forecasts and GPS monitoring while tracking food from seed to table. Even social and political phenomena, like city planning and civic participation, will draw on automated data gathering from citizens, agencies, and even power grids and mass transit systems.

Public and private organizations will have all the data required for efficient delivery of goods and services. However, they will need skilled individuals to give this information meaning and context. Computational thinking—the ability to translate vast amounts of data into abstract concepts and to understand data-based reasoning—will be an important factor in recruiting workers ready to apply judgment and logic to digital systems and their output. Future Work Skills 2020, a report by Institute for the Future for Apollo Research Institute, identifies computational thinking as one of 10 key proficiencies required for workplace success during the next decade. (Link for report title: http://apolloresearchinstitute.com/node/52).

Using computational thinking, workers will learn to gauge the accuracy of data before creating real-world models that rely on it, while understanding that no simulation can exactly reproduce the present or predict the future. They will use beginner-friendly programming tools to extract value from the information they gather, and even design smartphone apps on the fly to allow all users in an organization to collect and make their own judgments about data. In this way, automated systems will become less mysterious and more customizable, replacing proprietary processes with democratic, open-source tools.

As the ability to connect automated systems becomes more widespread, a broader range of institutions and experiences will be programmable. People who can program automated mass transit to interact safely with cars and commercial vehicles will be in demand, as self-driving vehicles become more practical. City planners with the ability to think in terms of holistic processes will help foster the creation of “smart cities,” in which building-level sensors will allow whole neighborhoods to be measured and monitored for quality of municipal services, emergency response needs, and power-grid status.

If something can be measured, it can be managed. By understanding how best to interpret our world, workers who master computational thinking will be the catalyst that turns the wealth of data that automated systems collect into economic and societal benefits for all.

Learn more at www.apolloresearchinstitute.org.

ACUTA Fall Seminar

October 14–17, 2012 • Houston, Texas • Hilton Americas

Track 1. Voice Communication Trends

Track 2. ICT Supporting the Campus—Facilities, Safety & Instruction
Network Upgrade at Sewanee

Jeanne Jansenius, Dir, of Telecom & Tech, Infrastructure Services (jjansenius@sewanee.edu)
Vicki Sells, Associate Provost & University Librarian

Over the next few months, Information Technology Services at Sewanee: The University of the South will be working on a $900,000 upgrade to the campus network. The university will improve wireless connectivity and extend coverage to every building on campus, as well as to exterior areas, such as our quads. At the same time, we will increase our institutional Internet bandwidth from 250 to 750 megabytes/second. Along the way we hope to minimize the inconvenience caused by the replacement of fiber and conduit and the installation of switches.

ITS will provide periodic updates as work on the project progresses. Significant improvements will be in place by January 2013, and the entire project should be complete by late spring.

We created a Facebook page for the update, thinking it might be fun to watch us as we keep everyone up-to-date on our progress. Social networking is one of many tools for PR. See for yourself at https://www.facebook.com/pages/Sewanee-ITS-Infrastructure-and-Wireless-Project/173410242784329?ref=hl.

ACUTA Member Benefit of the Month: Job Listings

**Past issues are archived HERE**

Welcome to the September 2012 issue of the ACUTA Member Benefit of the Month. Each month we spotlight one of our many member benefits and provide information on how all members can get the most from their participation. This month we are focusing on the free Job Listings section of the ACUTA website.

Institutional and corporate members are encouraged to submit job listings for posting on the ACUTA website. Recent job listings are highlighted on the ACUTA homepage, www.acuta.org, with a link to a full listing of all available positions. Current job listings are also included in each issue of the ACUTA eNews for additional exposure.

If your school or company has an open position it would like to list, please submit a direct link to the position description posted on your institution's website to Aaron Fuehrer at afueher@acuta.org. If a link is not available, please email Aaron with the information about the open position (include responsibilities, qualifications, and contact information).

Only ACUTA members have the opportunity to post job listings on the website. Our goal is to help our members find the right fit for their institution.

We hope this information on ACUTA's online Job Listings is helpful. Contact Amy Burton with any questions. (aburton@acuta.org, 859/278-3338 x240)

Want to Smile?

Hear a 1940s explanation of circuits, repeaters, and amplifiers and why you can't dial coast to coast: http://archive.org/details/0800_Continent_is_Bridged_A_06_47_34_00
Info Links

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.

- NRRI – Survey of State Universal Service Funds 2012: http://www.nrri.org/documents/317330/e1f6c638-e622-48bc-adc4-21cc49c8718d
- NRRI – Primer-Transition to an All-IP Network: http://www.nrri.org/documents/317330/7821a20b-b136-44ee-bee0-8c5331c7c0b
- Phoenix Center – Section 706 & Broadband Regulation: http://phoenix-center.org/perspectives/Perspective12-04Final.pdf
- ACI – High Cost/Little Benefit...Analysis of USF High Cost Fund: https://prodictnet-www.neca.org/publicationsdocs/wwpdf/73112usfreport.pdf

Randy Hayes
Director at Large
Univ. of Northern Iowa
randal.hayes@uni.edu
Board Report

The Board met via conference call on August 1, 2012, and approved the following items:

- May and June 2012 Financial Statements
- Monthly Committee Minutes and Reports
- Committee and Subcommittee Appointments:
  - Environmental Scanning Committee: Paul Stackhouse, Frontier Nursing University, Kentucky
  - SNNMR Subcommittee: Mona Brennan-Coles, Western University, Ontario, Canada
- Membership Reports
- ACUTA Strategic Plan:
  - Mission: To advance the capabilities of higher education IT Leaders.
  - Vision: To be the premier source for connecting higher education Information Technology Leaders with ideas and solutions to deliver superior communications and collaboration technologies
  - We serve: IT Leaders responsible for communications and collaboration technologies and services, and the infrastructure that supports them.
  - Primary Function: Professional development, education, and networking
- Amended budget for 2011-2012
- Budget for 2012-2013
- 3% increase for exhibit fees and sponsorships (seminars and annual conference) for 2013-2014
- 2014 Winter Seminar Location: Pointe Hilton Tapatio Cliffs, Phoenix, Arizona
- Proposal to Integrate the Young Professionals Subcommittee into the Membership Experience Committee

Respectfully Submitted,
Riny Ledgerwood

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

2013 ACUTA Educational Calendar

Winter Seminar • January 13-16 • Hyatt Regency Tampa, Tampa, FL.
Track 1: Next-Generation Data Networks
Track 2: ICT Disaster Preparedness: Plan, Prepare, Practice, and Protect

42nd Annual Conference & Exhibition
April 14-17, 2013
Manchester Grand Hyatt
San Diego, California

Fall Seminar • October 6-9 • Renaissance Grand Hotel • St. Louis, MO.
Track 1: Turning ICT Service and Support into a Strategic Asset
Track 2: All Things Wireless, Mobile, and Cloud
Welcome New Members

Corporate Affiliates

ADTRAN, Huntsville, AL
www.adtran.com

Toni Page, Marketing Campaign Mgr., 256/963-8963 (toni.page@adtran.com)

ADTRAN understands the challenges educators face, and is dedicated to providing reliable, innovative networking solutions for connectivity and collaboration. ADTRAN’s cloud connectivity, unified communications, and virtual mobility solutions enable the transition to true digital learning.

Consolidated Call Center Services, Mattoon, IL
www.consolidatedccs.com
Greg Hagerman, President, 888/859-7110 (greg@consolidatedccs.com)

Consolidated CCS offers directory assistance, operator services, outsourced phone reception, directory, messaging, and outsourced call center services supporting Web chat, trouble ticketing, customer service, product orders, scheduling, and messages.

Emerson Network Power, Warrenville, IL
www.emerson.com

Bob Marinik, Dir. of Marketing, 630/579-5676 (bob.marinik@emerson.com)

Emerson Network Power is a turnkey supplier of telecommunications products and services to the communications market, including DC power, UPS, cooling and ATE products and services that support the transmission of voice, video, and data.

Sagemcom, Montreal, Quebec
http://xmediusfax.sagemcom.com

Kurt Ramcharan, Partner Mkt. Mgr., 514/787-2121 (kurt.ramcharan@sagemcom.com)

Sagemcom is the global leader in advanced fax server solutions for IP networks since 2002. Our solutions leverage IP telephony, UC and EGM systems.

SOLID, Winston, OR
www.solidtechusa.com

Mike Collado, Dir. of Marketing, 571/216-2404 (mike.collado@solidtechusa.com)

SOLID enables dependable indoor and outdoor coverage and capacity for cellular phones, public safety radios, private 2-way radios, and paging with cost-effective, flexible and scalable distributed antenna systems (DAS), mobile backhaul and WiFi offload solutions.

Sonus Networks, Westford, MA
www.sonus.net

Dora Padilla, Customer Event Marketing, 972/728-8923 (dpadilla@sonusnet.com)

Sonus is a leader in IP networking with expertise in delivering secure, reliable, and scalable next-generation infrastructure and subscriber solutions. Sonus enables service providers and enterprises to capture and retain users and generate significant ROI by transforming networks to IP.

Check It Out:

Press Releases, Job Postings, RFI/RFPs, Special Deals, and Corporate Webinars

The ACUTA website lets you communicate with other members—share some exciting news, fill a position, or find just the right vendor. Check the website for the latest postings frequently. Here are items that have been posted since our last eNews.

PRESS RELEASES
Send press releases to Amy Burton (aburton@acuta.org)

• Aastra BluStar Ecosystem Increases Flexibility for Remote Workers
• Code Blue Corp. Expands into Mobile Emergency Comm. Through New Partnership with Guardly
• Talk-A-Phone’s ECO TOWER Takes the New Product of the Year Award
• OnSSI’s Ocularis Links to Talk-A-Phone's Emergency Phones
• Talk-A-Phone and Fluidmesh Networks Announce Technology Partnership
• e-Cycle Urges Responsible Electronics Recycling in Wake of 17 Children Being Rescued from Aligned Hazardous Recycling Operation
• e-Cycle Joins with Ford Motor Company to Raise Funds for Type 1 Diabetes Research
• Enterprise-Grade E911 Solutions Now Available for UCaaS Providers

JOB POSTINGS
Help your colleagues who are looking for work! To send job postings, go to www.acuta.org. Click on one of the jobs listed there and you will link to the jobs we have and a link where you can post a job.

• Network Administrator, Adams State University, Alamosa, CO
• System Administrator, Abilene Christian University, Abilene TX
• System Administrator, Indiana State Univ., Terre Haute, IN
• Director of Telecom & Network Services, California State University, San Bernardino, CA
• Associate Director of Communications, Univ. of Illinois at Urbana-Champaign, Champaign, IL

RFIs/RFPs: Submit your RFI/RFP today!

FREE WEBINARS HOSTED BY ACUTA CORPORATE MEMBERS

Many free webinars are available through ACUTA Corporate Members. Check the website at www.acuta.org/corporatetawebsinars to see what is currently available. (Corporate members e-mail Amy Burton at aburton@acuta.org to get your free webinars listed.)