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In this Issue...

eNews Sponsor...

Contact ACUTA...

Sewanee Campus Celebrates IEA Award with "Wireless Day"

The Institutional Excellence in Information Communications Technology Award is presented to ACUTA member institutions for excellence and professionalism. The winning applications are based on the scope and complexity of the endeavor, technological leadership, benefit to the institution and key constituents, innovation, and demonstration of that excellence and professionalism.

There is a rigorous two-stage application process, and all finalists are asked to submit extensive documentation, as the applicants can tell you. As you already know, the winners of the 2013 ACUTA Institutional Excellence Awards were:

Category 1 – Sewanee: The University of the South
　　　　　Honorable Mention: Abilene Christian University

Category 2 – Washington University in St. Louis

Category 3 – Indiana University

It was my pleasure to visit the beautiful Sewanee campus in June and commend the entire Library and Information Technology Services team, the veritable winners of the Institutional Excellence Award for 2013.

ACUTA's Awards Committee granted the award for Sewanee's Wireless and Network Infrastructure Project, a strategic initiative to provide improved access to campus servers and information systems, online course materials, and the Internet, including the many electronic journals, databases, streaming music, and video collections licensed by the library. The project will provide wireless coverage for the academic quad areas and the athletic fields for "beyond the walls" learning and recreational experiences.

It was an honor to again present the award, a beautiful crystal sculpture inscribed with "Sewanee: The University of the South" and the year of the award, 2013, to Vice Chancellor John McCardell on behalf of Vicki Sells, Associate Provost for Library and Information Technology Services and University Librarian; Jeanne Jansenius, Director of Telecommunications and Technology Infrastructure Services; Geno Schlichting, Com-
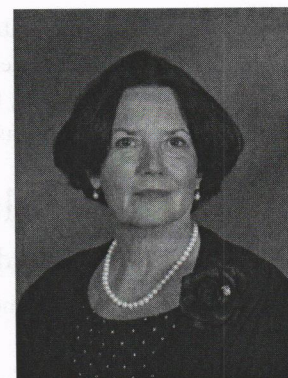
Corinne Hoch, PMP
ACUTA CEO
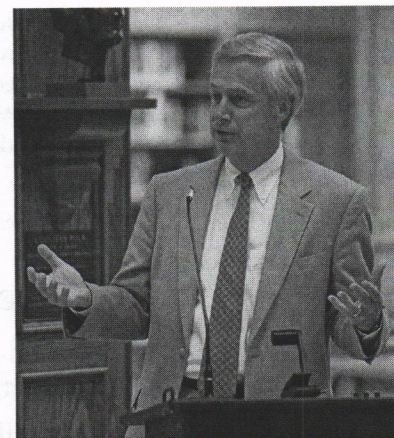
Dr. John McCardell, Sewanee Vice Chancellor, at the campus presentation of the Institutional Excellence Award in June.

munications Specialist; and the entire team. It is now displayed in a protective case in their main library.

Sewanee also received two complimentary registrations to a future ACUTA Annual Conference or Strategic Leadership Forum for its notable accomplishments in the implementation of its Wireless and Network Infrastructure Project. The effort and collaboration required to envision the need and to satisfy that need were well noted by Dr. McCardell's special reception and his establishment of a "Wireless Day," which will happen this fall at Sewanee. His recognition of the successful efforts of the entire team is indicative of the supportive ingredients that continue to inspire us all to do our best.

Dena Culbertson, a proud representative from our corporate award sponsor, Windstream, and I were there to congratulate everyone. We encourage you all to apply for the prestigious award and to "bring the award home" to YOUR deserving teams. Visiting your campus and meeting and personally recognizing those behind the scenes is an honor and a pleasure for me and a great opportunity to reward those "unsung heroes."

Regulatory Webinar on Section 255 of the Communications Act

Wednesday, August 21 • 2:00 – 3:00 pm EDT • ACUTA members: $89, nonmembers $129

ACUTA members will want to participate in this webinar that provides the very latest information from ACUTA's legal counsel.

This spring, many colleges and universities received notifications from the FCC that they were required to file a certification that they are complying with recordkeeping requirements under the rules implementing Section 255 of the Communications Act, which governs accessibility to communications. The certification requirement, new in 2013, put a renewed focus on Section 255 for many institutions.

This webinar will address how to determine whether your institution is subject to Section 255; how you can comply with the substantive requirements; and how to comply with the new recordkeeping requirements. The certification compliance requirement and what steps you can take to be removed from the FCC's Section 255 list if you do not need to comply also will be discussed.

Speaker: J.G. Harrington (Partner - Dow Lohnes PLLC) counsels the law firm's telephone, mobile communications, cable television, broadband and new technologies clients on federal and state regulatory issues and works with other clients to address issues that arise in their interactions with service providers and regulators.

ACUTA Webinar: What's on the Radar for Higher Ed IT 2013?

Tuesday, August 27 • 2:00 – 3:00 pm EDT

FREE to members/$129 nonmembers

ACUTA thanks Cloudpath Networks for sponsoring this webinar.

Dee Childs, Associate Provost/CIO at the University of Alabama in Huntsville and chair of ACUTA's Environmental Scanning Committee, will discuss the compelling issues you'll face over the next few years. In a survey of ACUTA members, the committee asked which technologies and issues are important now and whether they will become more or less important in the future. Will IPv6 become a bigger issue? Will VoIP and unified communications continue to dominate our time? Will accommodating bandwidth expectations wane in significance?

Register online no later than Friday, August 23. Questions regarding registration should be directed to Joanie Profitt, jprofitt@acuta.org or 859/721-1658.

Sneak Peek at 2014 ACUTA Journal Topics

Topics for the 2014 Journal have been selected. Have you recently completed a campus project that deserves to have its story told? If so, contact Pat Scott, Journal editor, at pscott@acuta.org or 859/721-1659. You could be a published author!

Spring......IPv6, SIP Trunking, and Other Upgrades
Summer ..Funding the Enterprise: Managing Money and More
Fall...........Campus Technology Profile 2014
Winter.....Maintaining Security and Privacy in a Very Public World

Vendor System Integrations Accelerate in the Safety & Security Industry

Josh Sookman, Guardly

With the shifts from analog to digital and from few managed systems to many, security operations teams are facing new challenges when it comes to managing vast amounts of real-time and archived information, and making sense of it all when important decisions need to be made quickly. Meet big data.

Historically, top systems integrators (SIs) dominated large-scale integration projects that combined multiple safety and security products. These SIs became masters of electronic data interchange between complex systems and could rollout very large integrated systems in just a few years and with a very sizeable check, of course.

Times are changing. It was clear to me after I spent three days on the show floor at the 2013 ISC West Conference that integration and convergence of safety and security technologies was a key theme, and I predict that we'll see that trend grow sharply over the next three to five years.

For security operations management, there is a big shift to using integrated commercial-off-the-shelf (COTS) systems that are lower-cost, faster-to-implement and typically offer more flexibility in terms of vendor support and swapping. Two such examples are (1) physical security information management (PSIM) systems, truly offered by only a handful of companies today, which act as hubs to integrate a variety of systems from access control to video cameras to personal alarms triggered by mobile apps; and (2) groups/clusters of vendors who have pre-existing integrations that can be enabled for new end users in just hours (not months or years) and provide the ability for both systems to access/interact with the other system's data—often by use of an application programming interface (API) provided by both vendors—without the need for additional custom work to be performed.

This all makes sense. When assessing a threat and managing an incident, events occur in real-time, and data from a number of systems can all be important. If there is an active shooter on a campus, for example, it would be helpful to pull up the closest camera, send or receive text and images from people nearby, control access and lockdown procedures, and manage dispatched officers all from one central console. When this data can be visualized, consumed, and acted upon jointly, there is less chance of making a mistake when seconds count; lives might even be saved.

PSIM systems today are emerging as the gold standard for providing security dispatchers with the highest level of situational awareness. Frost & Sullivan, a market research firm, expects the market for PSIM systems to grow at a rate of 35% between now and 2021, at which time those vendors should be enjoying a $2.8 billion market for those services.*

The lower-cost price points of non-PSIM COTS systems are also enabling smaller and medium-sized security operations teams to enjoy the benefits of an integrated system within their budget constraints. Increasingly, these end-user buyers will look to vendors whose systems play nice with others they already use so as to further leverage existing investment and ensure interoperability of key data between those systems. Keep your eyes peeled for many more integration announcements to come throughout the balance of 2013, with a massive surge around the 2013 ASIS Annual Conference that runs in the fall.

Frost & Sullivan. June 2012. "Global Physical Security Information Management Market: A Global Trend Changing the Way Security is Considered."

ACUTA Seeking Presenters for Winter Seminar in Phoenix

ACUTA is looking for ideas and proposals for educational sessions for its 2014 Winter Seminar, January 12-15. We welcome proposals from representatives of higher education institutions and consulting firms. Applicants are not required to be members of ACUTA.

Please submit your application by September 5, 2013. Sessions should cover university projects and/or trends in the industry, but should not promote the products or solutions of individual companies.

Track 1: The Changing Landscape of Communication Technologies

Track 2: Empowering Collaboration through Technology

All the details are available at www.acuta.org/wcm/acuta/pdf/071013a.pdf.

Download the speaker proposal form and submit your proposal via e-mail to mwest@acuta.org by September 5, 2013. Contact Michele West, ACUTA Director of Professional Development, at 859/721-1655 or mwest@acuta.org if you have any questions.

Déjà vu All Over Again: Can We Please Put SDNs in Context?

William A. Flanagan, Flanagan Consulting

This TechNote appeared online March 24, 2013, and is reprinted here with permission.

What's new under the sun? "Nothing" is the historical answer. "Not much" is pretty close for the current hot topic, software defined networks (SDNs).

In some sense, all networks (circuit switched and packet switched) have been defined by software since computers began to control voice switching in the public network more than 50 years ago. Rather than counting dial pulses and routing calls with purely electro-mechanical relays, the electronic switching system (ESS) stored digits and selected routing connections with digital logic circuits.

Paths and Policies

In the realm of digital packet data starting with X.25 services, routing and switching have been entirely electronic. While routers and switches work with different parts of the packet header (at the protocol layer), both share two prime functions: path finding and policy application.

Every packet handler operates from a forwarding table, using a list of destinations to which it can send packets. The list may consist of MAC addresses, IP addresses, or some other element. The device matches the destination address in an arriving packet to determine where it should exit the device (port)—along with mapping what address it should carry (because the MPLS label, IP address, or frame relay DLCI may change). In a circuit switch the routing table is the cross-connect configuration.

Policy refers to operational conditions that may modify the handling of a packet. For example, an access control list in a router may block a packet. A frame relay switch will compare the recent throughput to the committed information rate (CIR) for the connection to determine if a packet should be sent or dropped. Policy in voice circuit switches created the first SDNs on the public network by routing calls based on short dial strings rather than a full telephone number.

Same Principles, Different Implementations

I contend that all networks operate on the same principles. The differences arise in how a network device builds a forwarding table and how it gets policy information. For example:

Telcos prefer deterministic controls that allow operators (or operations software) to make all the decisions regarding routes or paths and every policy. Examples are MPLS with traffic engineering, permanent virtual circuits (frame relay or Ethernet), and rate throttling for "heavy users" of Internet access.

Internet architects devised open protocols to let the network devices themselves find paths and signal each other regarding policy. Thus we have routing protocols (BGP, RIP, and OSPF) and path-finding methods that include policy issues (Label Distribution Protocol, RSVP).

Hardware makers used to prefer proprietary methods. TimeNet "threaded a needle" to set up an X.25 connection while Nortel used its own method to assign a path. Frame relay switches all had proprietary ways to find a path to a destination based on a signal from the "caller" (a switched virtual circuit); however, carriers never implemented this feature as a service.

The Packet SDN

Today's packet SDN uses a central processor or server to manage switch and router configurations. With complete knowledge of the network, the server doesn't rely on routing protocols in every device to find paths. Rather, the server knows how each device should handle any packet address and pushes a forwarding table and policies to each.

Network devices can't be completely dumb. They must recognize and report errors, faults, traffic volume, and perhaps even flow information. Automatic alternate routing, or failover to a backup path, is also required; this could be managed as a policy implementation or part of the forwarding table set up centrally. Newbridge Networks (in the 1990s) called this concept "center-weighted management." They applied it to multiplexers (circuit switches), but it's basically the same for packets. SDN or not, each device forwards packets based on addresses, ports, or other fields in the headers—according to rules set up in the forwarding table and their associated policies.

What's the difference between the SDN and today's Internet? It's how those tables and policies are set up in each device. Will it make a noticeable difference? Perhaps.

Making it Work

Calculating paths and tables centrally should eliminate route flapping, and network operators will like the ability to control path routing because this helps balance loads across multiple circuits and control latency for the Service Level Agreement on specific connections. Removing all traffic from a device that needs maintenance or replacement should be faster and easier. Taking routing protocols off the routers frees up processing power to handle more throughput.

All in all, not a bad idea—again.

Some Thoughts about Fiber Optics

Jim Clodfelter (jim.clodfelter@lightbrigade.com) recently described some of the advantages of fiber optics. Beginning with bandwidth, addressing future bandwidth demands is critical when designing a system. There are multiple types of optical fibers designed to meet future bandwidth needs. In many cases, network operators can increase the bandwidth of their existing fiber simply by changing terminal equipment.

Another benefit of fiber optics is its low signal attenuation. Signal attenuation in copper cables increases with frequency, so the more information you try to force through a copper conductor, the higher the losses. This effect is not nearly as pronounced in fiber-optic cables.

Noise immunity is also a tremendous benefit. Because glass is an insulator, no electric current can flow through an optical fiber, and because the optical signal cannot pass between fibers, optical cables are immune to both optical and electrical interference.

A copper cable with 900 pairs carrying 21,000 telephone channels has a diameter of 7 centimeters and weighs 7 metric tons per kilometer. The largest optical cable contains 1,728 fibers and can carry almost 450 million equivalent voice circuits when using only one wavelength at 40 gigabits per second, and it weighs a fraction of the copper cable.

Optical fibers are not much thicker than a human hair. Even when fibers are coated and incorporated in cable structures, they are far smaller and lighter than metallic cable. Small size and light-weight makes storage, handling, and installation much easier. In most urban areas today, copper cabling has filled existing ductwork to capacity. Using smaller fiber cables ensures efficient use of inner duct space.

So, What's an OLAN?

According to Jim Hayes, President of the Fiber Optic Association (www.thefoa.org), campuses facing upgrades to transport the bandwidth needed for new services should consider a new network architecture called an OLAN or optical LAN. OLANs are based on the fiber-to-the-home (FTTH) technology now being used to connect more than 100 million subscribers worldwide. FTTH uses networks based on splitting optical signals in a passive optical network (PON) to share one set of downstream electronics among up to 64 users connected on a single fiber each, significantly reducing the cost per user. OLANs require no electronics—or power—between the main equipment room and the end user. At the user end, an Ethernet switch with POE allows connection of 4 wired devices or wireless access points with regular Cat 5 patchcords.

The PON architecture requires fewer fibers than traditional structured cabling, says Hayes. Indoors they use tiny cables based on bend-insensitive fibers that can be bent around corners impossible with regular cables. Installation can be done quickly and easily using prefab cable assemblies or splice-on connectors developed for fast installation of FTTH subscribers.

The most appealing feature of OLANs is the cost. The installed cost per user is much less than traditional structured cabling. The operating cost is even lower with easy centralized management and lower power consumption. Upgrades are easy—the equipment is ready for 10G+ incoming and 2.4G to the users. As an added benefit, you may even make some money by recycling all that copper you pull out to install OLANs, says Hayes.

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.

- Europa - Broadband Speeds in Europe Less than Advertised:
  http://europa.eu/rapid/press-release_IP-13-609_en.htm
- "Sam Knows" Project - Measure Broadband Performance:
  http://www.samknows.com/broadband/index.php
- Europa - New Lower Mobile Roaming Caps July 1st:
  http://europa.eu/rapid/press-release_IP-13-611_en.htm
- EC - Digital Agenda Scoreboard for the EU:
  http://ec.europa.eu/digital-agenda/en/scoreboard
- FCC - Connect America Fund (CAF) Implementation Report:
  http://transition.fcc.gov/Daily_Releases/Daily_Business/2013/db0627/DOC-321858A1.pdf
- U.S. Courts - 2012 Wiretap Report:
  http://www.uscourts.gov/Statistics/WiretapReports/wiretap-report-2012.aspx#sa5
- ITU/Cisco - Why National Broadband Plans (NBBP) Matter:
  Executive Summary: http://www.broadbandcommission.org/documents/executivesummaryNBP2013.pdf
  Full Report: http://www.broadbandcommission.org/documents/reportNBP2013.pdf
  Audio Recording from ITU Press Conference 07/01/2013: http://bit.ly/19Qvb4T
- The SIP School - SIP Survey 2013:
  http://www.thesipschool.com/survey2013.html
  Note: ACUTA members get a 10% discount on certification courses at the SIP School
- PRT - Connect America Cost Model Issues and Puerto Rico:
  https://prodnet.www.neca.org/publicationsdocs/wwpdf/71713prtc.pdf
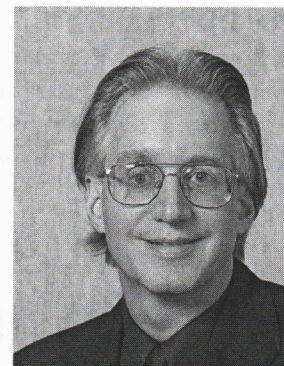
Randy Hayes
Leg/Reg Affairs Committee
Univ. of Northern Iowa
randal.hayes@uni.edu

Register to Attend the ACUTA Fall Seminar

October 6–9 • St. Louis, Missouri • Renaissance Grand Hotel

Track 1: Turning ICT Service and Support into a Strategic Asset

ICT organizations continually evaluate, deploy, and support new services to meet campus needs. A key success factor in this process is an effective service and support organization that can help users maximize the value of both new and old services. This track will explore what tools, training, processes, and back-end support ICT support organizations need in order to provide fabulous service to our campus constituency, as well as effective organizational models for providing this needed support.

Track 2: All Things Wireless, Mobile, and Cloud

The ability to access any piece of information from anywhere is today's most disruptive technology driver affecting higher education. This track will explore how our institutions can use cloud and network services, mobile and wireless devices, and personalized technology to save money, improve learning, and expand research capabilities quickly and cost effectively, as well as how we are adapting our ICT organizations to support services we didn't build, on devices we haven't bought or specified, for users who are doing more with technology at every turn.

Register online today! www.acuta.org/fs13

ACUTA Is Looking for a Few Good Coordinators

Being a State Coordinator is an easy way to participate in the association and reap personal benefits without a major time commitment. State Coordinators welcome new members and play an ad hoc role in assisting the Membership Experience Committee with retention and recruitment activities. It's usually as simple as a quick e-mail or telephone call to a school in your state/area. Attending seminars/conferences is not required. However, when you do attend, we ask you to come to the First Time Attendees Orientation to meet, greet, and help the newcomers have a great experience. Additional opportunities may arise, such as being asked to moderate or monitor a session at ACUTA's Annual Conference, or assisting another ACUTA committee in outreach efforts.

One of the personal benefits to you is the additional networking opportunities. In addition, accepting a position of responsibility in a professional organization and increasing visibility for your school is generally viewed favorably by senior administrators within college/university environments. And if you have ever thought of serving as a committee chair or on ACUTA's board of directors, this could certainly be a step in that direction.

As a volunteer-driven organization, we rely on members to support our goal of helping you contribute to the achievement of your institution's mission. Please consider volunteering as a State/Providence Coordinator and get actively involved in your professional association!

Visit the State/Province Coordinator section of the ACUTA website for more information on the duties of a State/Province Coordinator.

The states not currently being represented includes: **DC, Idaho, New Hampshire, Oklahoma,** and **Wyoming**. If you or any of your staff are interested in volunteering, please contact Amy Burton at aburton@acuta.org or (859) 721-1653.

Board Report

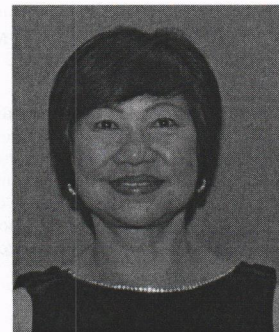The Board met via conference call on July 3, 2013 and approved the following items:
1. Financial Reports
2. Monthly Committee Minutes and Reports
3. Membership Reports (see background information)
   A. June Dashboard 2013
   B. Membership Recruitment Status
4. Committee Nominations (see background information)
   A. Program/Content Committee: Elizabeth (Beth) Scheid, University of Illinois at Urbana-Champaign
   B. Legislative/Regulatory Affairs Committee
      (1) Andy Hulsey, University of Central Florida
      (2) Greg Sparks, North Carolina State University
   C. Higher Ed Advisory Panel
      (1) Chris Fulkerson, Elon University
      (2) John Gallant, IDG Enterprises
5. Publications/Media Committee recommendation to change the name of its Social Networking, New Media and Web Resources Subcommittee to the Social Media Subcommittee.

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

President Kovac would like to invite a Provost and two students for an open discussion and Q&A with the board at the St. Louis Seminar. The purpose is to learn their perspectives as ICT users so we can align our program/contents to meet our member needs.

ACUTA is continuing to monitor its progress to make sure we are on track with our Strategic Plan.

Respectfully Submitted,

Riny Ledgerwood

Welcome New Members

Institutional Members

Morehouse School of Medicine, Atlanta, GA. T1 .... www.msm.edu
David Alexander, Telecom Specialist (404/756-1322) dalexander@msm.edu

Univ. of Missouri - Columbia, Columbia, MO. T5 ....www.doit.missouri.edu
Nathan Eatherton, Assoc. Dir., Cust. Svc & Support (573/884-1888) eathertonn@missouri.edu

Corporate Affiliates

COPPER MEMBERS

Dali Wireless, Inc., Palo Alto, CA .... www.daliwireless.com
Laura Hayes, Marketing Coordinator (604/420-7760) lhayes@daliwireless.com
Dali Wireless is a global provider of an all-digital radio frequency signal routing system, a whole
new concept of DAS. The t-Series™ is the most versatile, cost-effective, best-performing solution
for extending the coverage and capacity of wireless carriers in almost any environment.
Interactive Intelligence, Inc., Palo Alto, CA ....www.inin.com
Beth Hohman, Regional Account Manager (317/715-8613) beth.hohman@inin.com
Interactive Intelligence Group Inc. offers contact center, unified communications, and business
process automation software and services designed to improve the customer experience. The
company's solutions, deployed via the cloud or on-premises, are ideal for higher education.

Check It Out:
Press Releases, Job Postings, & Corporate Webinars

The ACUTA website lets you communicate with other members—share some ex-
citing 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: www.acuta.org/wcm/acuta/pressroom/pr.pdf
Send press releases to Amy Burton (aburton@acuta.org)

- Sonus and F5 Networks Combine Market Leading Session Border Controller and Diameter Solutions to Address the Emerging LTE Market
- ShoreTel Joins the HP AllianceOne Program
- Texas A&M Installs INcomm's In-Building Mobile Reception System Using Disruptive Technology
- ShoreTel Mobility 7 Redefines the User Experience for the Mobile Generation
- 911 Enable Completes Cisco Interoperability Verification Testing with Cisco Developer Network
- Sonus Expands Partner Program into Two-Tier Structure to Meet Growth and Diverse Needs of Channel Partners
- ShoreTel Salutes its "Made in the U.S.A." Customers

JOB POSTINGS: www.acuta.org/jobs
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 now and a link where you can
post a job.

- 2 Positions, Eastern Washington University, Cheney, WA: (1) Assoc. Chief Technology Officer (2) Senior Manager - Project Management Office (ITS-5
- Senior Systems Administrator, The University of Texas at Austin
- IT Coordinator, University of Maryland, College Park, MD
- 3 Positions - Miami University, Oxford, OH: (1) Manager, Enterprise Systems, (2) Systems Analyst, (3) Senior Systems Analyst
- 4 positions, University of Central Florida, Orlando, FL: (1) Systems Administrator, Senior, (2) IT ERP Business Analyst Senior, (3) LAN Engineer, Senior, (4) Enterprise Messaging Applications, Systems Administrator Lead
- Director of Transmission Facilities & Operations (IT Manager 4), Pennsylvania State Univ.,University Park Campus, College, PA
- Senior Web Designer and Developer, Elgin Community College, Elgin, IL
- Director of Service Assurance & Relationship Management, Univ. of Wyoming, Laramie, WY

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