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ACUTA: Association for College and University
Technology Advancement

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# June 2013 Vol. 42, No. 6

# In this Issue...

- 1 Building on the Conference
- 2 Evaluating Emergency Notification Systems
- 3 Next Generation 9-1-1
- 3 Results of the 2013 Forum Competition
- 3 ACUTA Discount for SIP Certification
- 4 Info Links
- 5 Déjà Vu All Over Again: Can We Please Put SDNs in Context?
- 6 Do You ROCKZi?
- 6 Fall Seminar
- 6 Have You Paid Your Dues for 2013-14?
- 7 Welcome New Members
- 7 Check It Out

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# Building on the Conference

Most of us who attended ACUTA's Annual Conference in April are still feeling energized by the excitement that was apparent from start to finish. Jeff Owen, IT Professional/ Networking Executive with Telecom Reseller\* joined us in San Diego and proclaimed the event an unquestionable Success. The conference was brimming with ideas and solutions for tomorrow, and the unveiling of ACUTA's new logo (at the top of this page) and tagline—"Connecting Campus IT Professionals with Ideas and Solutions"—by President Jennifer Van Horn a year ahead of schedule demonstrates that our organization is evolving with you to meet your current and future membership needs.



Corinne Hoch, PMP ACUTA CEO

Attendance hit a five-year high, and we welcomed 68 first-time attendees. More than 400 people took advantage of the 45+ breakout sessions and the dynamic exhibit hall with 79 exhibiting companies. Sunday's timely Internet2 and DAS training sessions were well attended, and participants referred to them all week. The opening keynote panel of extraordinary CIOs gave us some new insights to think about:

- Issues that are keeping us up at night include staffing, budgets, security, privacy, and how to provide the resources to keep everyone motivated.
- As CIOs we look for opportunities to paint a vision of the technology-enabled future to help others see what we see.
- We need to be on the president's council. If we go to the meetings, we can listen to see what will impact us and what we can impact.
- Don't forget people in other departments. Success comes with buy-in, even when everyone else gets credit and each one thinks your great idea was his.
- People assume that students and faculty come to campus armed with technical expertise. This is not always true.
- The latest hot technology may not be strategic for our campus.

Cisco's CTO Bob Friday as well as Don McMillan, the pseudo-futurist who left everyone laughing, spoke to audiences that were fully engaged. I agree with President Ron Kovac who rates the conference as one of our best so far. The incredibly enriching sharing of technology information among our colleagues proved once again how we are all energized by the right information at the right time.

Bob Friday's description of what a mobile network should do—detect, connect, and engage—could also succinctly describe what we do at ACUTA on a daily basis. Such a successful event holds promise for our future and reinforces our commitment to remain the "go to" place for higher ed technologists! How appropriate that our new logo and tagline were unveiled in the business meeting that was literally buzzing with all sorts of ideas!

continued

And let me not forget to mention the success of the 17th Annual Forum for Strategic Leadership in Information Communications Technology to which an elite group of CIOs were yet again invited. Past ACUTA President and Associate Provost of Information Resources and CIO at Rowan University, Tony Mordosky, averred that this year he found the interactions extremely engaging and the perspectives right on target which led to especially rich dialogue. He also found the continued dialogue to be excellent, and confessed that none of us can afford to be on the bleeding edge. Higher education has to be nimble and quick because we are in the process of evolving ourselves, and as our audience evolves, so does ACUTA.

Thank you to all of you who help us attain our mission every day, "To advance the capabilities of higher education communications and collaboration technology leaders," and our vision, "ACUTA will be the premier source for connecting higher education IT leaders with ideas, innovations, and solutions, to deliver superior communication and collaboration technologies." In a message this morning Robert Priest noted, "A successful association professional once shared with me that 'There's no feeling like the one when you know you're in the right place at the right time, doing the right thing in the right way." That's just the way I feel now, and I am counting on each and every one of you to help our new President, Dr. Ronald J. Kovac, with his commitment to Kaizen, the art of continuous improvement.

If you haven't made plans to attend the Fall Seminar in St. Louis, mark the dates now: October 6–9. Once again, we will be considering two topics of high importance: "Turning ICT Service and Support into a Strategic Asset" and "All Things Wireless, Mobile, and Cloud." I guarantee the experience will be a worthwhile investment!

Share your ideas with me at any time: choch@acuta.org.

\*I invite you to listen to the podcast Jeff recorded immediately following the conference and published recently in the Telecom Reseller.



# **Evaluating Emergency Notification Systems**

Geoff Tritsch and Mike Grunder, Vantage Technology Consulting Group

The following information was posted to the ACUTA Community Listserv in response to a question from a member. It is reprinted here with permission from Geoff Tritsch and Mike Grunder with Vantage Technology Consulting Group. If you are not a regular subscriber to the listserv, you might consider how this tool could make your job easier.

Evaluating emergency notification systems (ENS) involves a variety of important questions. Clearly you want to assess a vendor's reputation for providing a quality product and outstanding service and support. But in addition you also need to evaluate the technical specifics of the ENS (size, capacity, operational characteristics, availability, ease of use, maintenance requirements, etc.) and analyze those things against your specific needs and applications.

ENS is not just a system - it is part of a broadly-based emergency response program that also involves a variety of technologies in addition to SMS and phones (wired and cell); two-way radio, fire alarms, digital signage, sirens, intercom and public address systems, radio, CATV, and social media. In one recent project, the approach became known as "inside, outside, atyour-side, and IN YOUR FACE!" Most importantly, an emergency notification program involves policies and procedures that insure adequate coordination of staff and resources during a campus emergency.

Evaluating emergency response systems and vendors involves evaluating what the institution currently has now, what it is lacking in its overall emergency response program, and how an emergency notification system fits into and improves overall emergency response. Emergency notification systems are one critical piece of a bigger whole and selecting the right one for your circumstances is extremely important.

It's been Vantage's experience that evaluation of emergency notification systems and vendors should be done within the context of the University's overall emergency response program. While the technology selected is critical, emergency response involves more than just getting the word out quickly -- and it involves more than just the IT Department. It's an institution-wide effort involving Telecommunications, IT, Public Safety/Police, Emergency Preparedness, Public Relations/Communications, and the Physical Plant/Facilities departments. Who crafts the message? Who hits the button? Who controls message content before, during and after the event? It also involves interfacing and working effectively with the surrounding community and city, county, and state emergency resources. It cannot be looked at as "just another technology project".

Contact us anytime at geoffrey.tritsch@vantagetcg.com

# Next Generation 9-1-1

Jerry Eisner, RedSky Technologies, Inc.

During the first hour of the opening reception for ACUTA's 42nd Annual Conference, we were asked seven times "What is Next Generation 9-1-1 and what does it mean to me?" by the telecom administrators for [fill-in-the-blank] University. Without the benefit of my trusty whiteboard, I answered the question this way:

NG9-1-1 will allow an IP-connected device that is aware of its own location to place a call for emergency service into an emergency service IP-based network (ESInet), and the network will use the location of the device to route the call to the appropriate call-taking agency for processing.

I chose the word "device" for a very specific reason. In the future, our industry doesn't envision a 9-1-1 call to be limited just to a telephone. For example, picture a camera with a GPS receiver and a Wi-Fi transceiver built into it. They exist today. The camera comes with an application that lets you upload your geo-tagged pictures to FaceBook as soon as you come into Wi-Fi range.

Let's add an application that takes the same picture, embeds the GPS location, and instead of sending it to FaceBook, sends it to the ESInet. The picture you just sent is of the bank robbery in progress across the street. A message carries the picture to the 9-1-1 call taker who uses the location in the picture to dispatch the appropriate police response. The picture is displayed for the officers at the scene and they arrest the bad guy in the picture. NG9-1-1 will allow many different forms of communication including text, picture, video, and instant message chat.

In the campus environment, where the customer includes students, faculty, and staff, the infrastructure that is built today must take into account the technologies of the near distant future.

Jerry Eisner is a Certified Emergency Number Professional, Board of Directors member for the Next Generation 9-1-1 Institute, Group Director – Public Safety for RedSky Technologies, Inc., in Chicago, and an ACUTA member.

# Results of the 2013 Forum Competition

As a follow-up to this year's Annual Conference, ACUTA's Board of Directors named a panel of judges from the Higher Education Advisory Panel to select one presentation at the Strategic Leadership Forum in San Diego for special recognition. After reviewing all the videotaped presentations, the panel selected "Creating an Org Chart for the Future," which was the work of Dr. Wole Akpose, Morgan State University; Tony Mordosky, Rowan University; Joe Salwach, University of Kentucky; and Tony Tanzi, Wentworth Institute of Technology. In the opinion of the judges, this presentation best illustrated the principles of strategic leadership.

Dr. Akpose was chosen to receive a complementary registration to next year's Forum at the Hyatt Regency in Dallas, Texas, March 31 – April 1, 2014.

Everyone who attended the ACUTA 17th Annual Forum for Strategic Leadership in Information communications Technology in San Diego in April was a winner because *all* the presentations were of extremely high quality.

# **ACUTA Discount for SIP Certification**

The SIP School (www.thesipschool.com/industry.html) offers 3 certification courses:

- (1) SSCA SIP technical training, their 'flagship' program that is endorsed by the TIA, Bicsi, USTelecom, and other organizations
- (2) Networking for VVoIP (Voice and Video over IP) for those who are moving from the TDM world and need to understand Data Networking and Voice/Video over IP
- (3) SIP Comms for Sales and Marketing for those who don't need all the details, just enough information to comprehend the over-all concept

ACUTA members can use a special code (AC706) to get a 10% discount for SIP certification. Credit card and PayPal are accepted on the website.

# 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.

- Texas A&M Voice-to-Text & Distracted Driving Study: http://tti.tamu.edu/group/cts/files/2013/04/voice-to-text-Yager-Apr23.pdf
   Previous Study: http://d2dtl5nnlpfr0r.cloudfront.net/swutc.tamu.edu/publications/technicalreports/476660-00024-1.pdf
- NSA Untangling the Web....A Guide to Internet Research: http://www.nsa.gov/public\_info/\_files/Untangling\_the\_Web.pdf
- FCC 2011 International Telecom Data (released April 2013): http://transition.fcc.gov/Daily\_Releases/Daily\_Business/2013/db0426/DOC-320545A1.pdf
- NTIA Broadband Adoption Toolkit: http://www2.ntia.doc.gov/files/toolkit\_042913.pdf
- U.S. House Hearing The Lifeline Fund: Money Well Spent?: http://energycommerce.house.gov/hearing/lifeline-fund-money-well-spent
- ITU WTISD 2013 Message from ITU Secretary-General: http://www.itu.int/en/wtisd/Pages/2013toure.aspx
- EC Advances in Clouds 2012: https://ec.europa.eu/digital-agenda/en/news/final-expert-group-report-advances-clouds-2012
- Ponemon 2012 Healthcare Patient Privacy & Data Security: http://www2.idexpertscorp.com/ponemon2012/
- Ponemon Econ/Productivity of IT Security on Healthcare: http://www.imprivata.com/resources/analyst-reports/ponemon-institute-study-economic-and-productivity-impact-it-security
- Columbia Wiretapping without Weakening Infrastructure: https://www.cs.columbia.edu/~smb/papers/GoingBright.pdf
- FCC Legal/Regulatory Regarding Next-Gen 911 Services: http://transition.fcc.gov/Daily\_Releases/Daily\_Business/2013/db0227/DOC-319165A1.pdf
- FCC-TAC VOIP Interconnection (TDM-to-VOIP): http://transition.fcc.gov/bureaus/oet/tac/tacdocs/meeting92412/VoIP-Interconnection-TAC-Memo-9-24-12.pdf
- Pediatrics Texting & Driving Among High School Students: http://pediatrics.aappublications.org/content/early/2013/05/08/peds.2012-3462.full.pdf+html
- Callfire Hottest & Coldest States for Small Business Activity:
   https://www.callfire.com/sites/default/files/images/print/CallFire\_US\_Map\_SMB\_Activity\_Large.jpg
   (by looking at telephone number purchase/expansion)
- FCC Quarterly Report of Consumer Inquiries/Complaints: http://hraunfoss.fcc.gov/edocs\_public/attachmatch/DOC-320817A1.pdf http://hraunfoss.fcc.gov/edocs\_public/attachmatch/DOC-320817A2.pdf http://hraunfoss.fcc.gov/edocs\_public/attachmatch/DOC-320817A3.pdf http://hraunfoss.fcc.gov/edocs\_public/attachmatch/DOC-320817A4.pdf
- OECD Local Content/Internet Development, & Access Prices: http://www.oecd-ilibrary.org/science-and-technology/the-relationship-between-local-content-internet-development-and-access-prices\_5k4c1rq2bqvk-en
- FCC FCC removes over 120 Paper/Filing Requirements: http://transition.fcc.gov/Daily\_Releases/Daily\_Business/2013/db0517/FCC-13-69A1.pdf



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# 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 Network (SDN).

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 electromechanical relays, the Electronic Switching System (ESS) stored digits and selected routing connections with digital logic circuits.

Webtorials' TechNotes is a regular contributor to the ACUTA eNews. Topics they cover, such as mobile voice, will be of interest to ACUTA members. You are invited to browse the TechNotes archive and subscribe to receive TechNotes directly via email by clicking here.

www.webtorials.com/content/acuta.html

### 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 processer 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.

continued

### Making it Work (continued)

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.

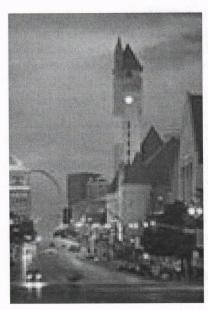
# Do You ROCKZi?

ROCKZi is a news platform that creates a social experience on the ACUTA website with the ideas and content custom selected for ACUTA members. The ROCKZi board:

- · Highlights highest priority issues
- Engages the audience with content from around the Web
- Provides a medium for social sharing around our issues

Powered by the Blekko search engine, ROCKZi gathers content from the best sites around the Web that are specifically targeted to engage ACUTA members. The content is displayed as a visually compelling, interactive experience on our site. The ROCKZi board is fully wired into social networks and armed with a variety of social interaction tools (sharing, voting, submit, comment, and more).

If you haven't accessed ROCKZi yet, check it out on the ACUTA website. Look for the bullet for News You Can Use.



# Mark Your Calendar for 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 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.

# Have You Paid Your Dues for 2013-14?

Annual dues invoices mailed May 1 and are due by June 30. Reminders will be in the mail July 3. If you haven't already responded, please renew your membership today.

In addition to the finest professional network available to higher education IT professionals, benefits such as discounts on events, free webinars, access to important legislative and regulatory information, the quarterly *Journal* and monthly *eNews*, ACUTA offers volunteers leadership opportunities to help you develop new skills and advance your career.

Mail your check today or call ACUTA headquarters at 859/278-3338 for more information.

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### Check It Out:

## Press Releases, Job Postings, & 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: www.acuta.org/wcm/acuta/pressroom/pr.pdf

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

- Iowa State University Joins Internet2 NET+ SIP Program
- Video: Univ of Maryland Eastern Shore Shows Full Test of Emergency Response
- Wyre Forest District Council Looks to Greener Pastures with ShoreTel UC Solution
- Sonus, Juniper Networks Form an Alliance to Develop Software Defined Network (SDN) Capabilities
- ShoreTel Receives 2013 IP Contact Center Technology Pioneer Award from CUSTOMER
- ShoreTel Enables Staffing Firms to Gain Competitive Advantage
- FCS Global Named ShoreTel Reseller in UK and Ireland
- ShoreTel Addresses Business Challenges for Enterprise Users and Administrators
- Aastra's Contact Center: Connect More and Do More!
- Camera-Ready Emergency Telephones Now Part of Red Alert Line of Telephone Products
- Sonus Enhances Session Border Controller Portfolio, Extends Technology Leadership
- The DAS Forum Renamed HetNet Forum
- · New ShoreTel Dock Transforms iPad and iPhone into Desk Phone

### 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

- Senior Web Designer and Developer, Elgin Community College, Elgin, IL
- Director of Service Assurance & Relationship Management, Univ. of Wyoming, Laramie, WY
- Systems Administrator Senior, University of Central Florida, Orlando, FL
- Senior HRIS Analyst, Miami University, Oxford, OH
- Senior IT Manager Project Management, Eastern Washington University, Cheney, WA

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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.)