

gateway to the future

ACE/RUS School and Symposium
May 2-5, 2010

Connecting Rural America



you are invited...

You are invited to attend the 2010 ACE/RUS School, May 2-5 at the Renaissance St. Louis Grand Hotel & Suites, in St. Louis, Missouri. Continuing in the tradition of providing speakers and sessions on topics most relevant to your business, this year's ACE/RUS School will be no exception. The ACE/RUS School is intended to provide you the opportunity to hear from industry experts and solution providers with ideas and insights designed to help you reach your business' greatest potential.

registration

Registration is \$395 per attendee. The registration fee includes all receptions, sponsored events and bound copies of presented materials. Attendees are responsible for their room and associated charges.

To register for the ACE/RUS School go to
www.ace-engineers.com



hotel

Renaissance St. Louis
Grand Hotel & Suites
800 Washington Avenue
St. Louis, MO 63101

For reservations call 800-266-9432
or visit our website at
[https://resweb.passkey.com/
Resweb.do?mode=welcome_ei_
new&eventID=1538934](https://resweb.passkey.com/Resweb.do?mode=welcome_ei_new&eventID=1538934)

Room Rate: \$89 per night
Room Cutoff: April 16, 2010

thank you to our sponsors!

Reception Sponsors

Welcome Reception Co-Sponsors:

BTI Systems and Cisco

Monday Reception Sponsor:

Huawei

Tuesday Reception Co-Sponsors:

Enablence Systems, Inc. and Harmonic, Inc.

Break Sponsors

Monday Morning Break Sponsor:

Adtran

Monday Afternoon Break Sponsor:

Power & Telephone

Tuesday Morning Break Co-Sponsors:

AFL Telecommunications and Tellabs

Tuesday Afternoon Break Sponsor:

Calix

Wednesday Morning Break Sponsor:

Ericsson

Wednesday Afternoon Break Sponsor:

Metaswitch

Breakfast Sponsors

Monday Continental Breakfast Co-Sponsors:

ALSET Corp. and Nebula

Luncheon Sponsors

Monday Lunch Sponsor:

Draka

Tuesday Lunch Sponsor:

Adtran

Registration Sponsors

Materials/Printing/Binder Sponsor:

Alcatel-Lucent

Name Badge and Lanyards Sponsor:

Innovative Systems

On Site Management Sponsor:

Extreme Networks

Prize Sponsor:

KGP Logistics

Signage Sponsor:

Occam Networks

Tote Bag Sponsor:

Walker & Associates

Sunday, May 2

6:30pm Early Registration and Welcome Reception

co-sponsored by BTI Systems and Cisco

8:00pm Dinner on Your Own

Monday, May 3

7:30am Continental Breakfast and Registration

co-sponsored by ALSET Corp. and Nebula

8:00am Welcome and Housekeeping

Tom Fulton, Fulton Engineering, President of ACE

8:10am Broadband

Chris Roland, Topic Moderator, Palmetto Engineering & Consulting, LLC
Data growth is exploding in our industry. Telecom futurists are predicting an exaflood of usage and capacity requirements in the near future. This session will investigate the steps your telco should take to respond to this demand. Panelists will discuss ways that you can evolve your network and manage the potential congestion created by these IP based services.

Middle Mile

Brian LeCuyer, RVW

With projections of bandwidth exploding for the last mile, what will need to be done to transport this to your core? What technologies are available to handle this traffic? Will the technologies provide the reliability that we are accustomed in a carrier class network? What are the technologies doing to ensure a great quality of experience? Will Ethernet be the end all technology?

The Last Mile

Charlie Watts, Communications Engineering

As the consumer demand for bandwidth continues to grow at an exponential rate we are left wondering what can be done with existing

architectures. Is the answer Fiber to the Premises, and if so, should you use active or passive technology? Is xDSL dead? What is being done to maximize the bandwidth that can be obtained on copper plant? Will loop bonding be enough? What about HFC networks? How far will you have to drive fiber into your last mile? What is being done to increase bandwidth on HFC networks?

9:45am Vendor Breakout Sessions

(running simultaneously for 25 minutes in breakout rooms)

10:10am Break

sponsored by Adtran

10:30am Resume Broadband Presentations

Congestion Control

Andy Deinert, Vantage Point Solutions

Before the stimulus regulations were complete, the net neutrality debate had died down a bit. Now that the stimulus is in full swing, the legislation has brought net neutrality back to the forefront. How will you manage the traffic on your network and remain "net neutral"? Will you be able to assign a higher priority to video and voice traffic while maintaining internet traffic at best effort?

Fixed Mobile Convergence/IMS

Lanny J. Harris, Kadrmass, Lee, & Jackson, Inc.

For the last couple of years we have been hearing the wonders of IMS and Fixed Mobile Convergence (FMC). Will IMS or FMC be the best method of handling the broadband traffic in the core of the network? Are the technologies actually being deployed in any mainstream applications? Get an update on the state of both FMC and IMS and see if either will be able to live up to the hype or will there be another technology.

Question and Answer

12:00pm Lunch

sponsored by Draka

1:00pm Wireless

Lynn Merrill, Topic Moderator, Monte R. Lee & Company

The wireless session will address the challenges the mobile wireless industry faces today and in the future. Discussions will include the impact from commoditization of the handset industry, what to expect from WiMax and LTE technology, how to capitalize on wireless backhaul and what to do when spectrum is not currently owned.

Mobile Wireless (PCS, Cellular)

Russ Hamilton, CHR Solutions, Inc.

The mobile, wireless PCS and cellular industry has grown over the past decade. Learn how the industry has changed and what can we expect with the implementation of WiMax and LTE. Will the availability and future of handsets matched with the roaming network define the successfulness of the service providers? Discuss how the Open Handset Alliance and other forums are shaping the landscape of future devices and how other devices meet the market demand for air cards, machine to machine services and fixed wireless applications.

2:10pm Break

sponsored by Power & Telephone

2:30pm Vendor Breakout Sessions

(running simultaneously for 25 minutes in breakout rooms)

2:55pm Resume Wireless Presentations

4G Wireless

Don Swedenburg, RVW

Discuss what is considered 4th Generation Wireless, how the technology works, what air interfaces are being used, bandwidth required and the practical use of software defined radios. Learn who is providing the service today, how disruptive is the change in migrating from 2G and 3G network to 4G, and what backhaul requirements will be needed from the telcos to serve the 4G cell sites.

What's Next?

Gary Beikmann, Monte R. Lee & Company

Many changes have occurred with the implementation of data and video in the wireless industry. Learn what the next hot technologies to come out of the wireless evolution will be, and what frequencies (both licensed and unlicensed) are being used to deploy these technologies. See how the merger of voice, video and data blur the lines to provide new services and separate the many players in the wireless field. Learn what paths can be taken to overcome the major hurdle of having little or no spectrum.

Question and Answer

5:00pm Recess for the Day

6:00pm Reception

sponsored by Huawei

7:30pm Dinner on Your Own

Tuesday, May 4

7:15am Continental Breakfast and Registration

7:30am Early Bird Vendor Presentations

(running simultaneously for 25 minutes in breakout rooms)

8:00am Video

Tom Harter, Topic Moderator, Engineering Associates

Sessions will include the latest developments in the deployment of video services and will discuss the most recent IPTV developments, challenges and tools needed to be successful.

IPTV Headends and Programming

Steve Senne, Finley Engineering Company, Inc.

The session will define the "who, what and how" of IPTV programming and how studios and networks are participating in IPTV distribution. We will also discuss stand-alone vs. shared systems and transport of shared headends.

IPTV Transport to the Home, MPEG4, and Set-Top Boxes

Gary Larson, Communication Network Engineers, Inc.

This session will include discussions on MPEG4 to the house, HPNA3 and interface through the home, whole house DVR, management systems and QOS, and surveillance.

9:50am Break

co-sponsored by AFL Telecommunications and Tellabs

10:15am Vendor Breakout Sessions

(running simultaneously for 25 minutes in breakout rooms)

10:45am Resume Video Session Presentations

Over-the-top TV and Direct Broadcast Satellite Providers

Mike Riley, Mid-State Consultants, Inc.

Discuss user-generated content, streaming clips from Weather Channel, ESPN, etc., and what online content is currently available. The session will also discuss if having a unique IP address for each set-top box means anything. Learn what's new with DBS and the primo source for HDTV. Is Telepresence for enterprise-level only? And is there any significant meaning for broadband providers?

RF Video Updates, RFoG, and Off-air

Tracey Brewer, Engineering Associates, Inc.

Learn more about RFoG and if ONT vendors are ready. The session will include discussions on whether HITS is still a viable solution, national control vs. local control, issues with off-air digital conversion and the effects of greater splits (>32) and longer distances (>20 km) on RF overlay.

Question and Answer

12:00pm Lunch

sponsored by Adtran

1:00pm RUS Presentation

Introduction and Program Update

Speaker TBD

American Reinvestment and Recovery Act Update

Speaker TBD

This session will provide a status report on RUS's implementation of the ARRA funds. Other topics to be covered will include post loan/grant rules on ARRA funded projects, effect of ARRA projects on the traditional lending program and lending issues.

2:30pm Break

sponsored by Calix

2:50pm Vendor Breakout Sessions

(running simultaneously for 25 minutes in breakout rooms)

3:20pm Resume RUS Presentation

Broadband Farm Bill Update

Speaker TBD

This session will provide a status update of the broadband regulations followed by an overview of the statutory requirements of the broadband program as contained in the 2008 Farm Bill. The session will be followed by questions and answers. If published by the time of the conference, the regulations will be covered in detail.

5:00pm Recess for Day

6:00pm Reception

co-sponsored by Enablence Technologies and Harmonic, Inc.

Wednesday, May 5

7:15am Continental Breakfast and Registration

7:30am Early Bird Vendor Presentations

(running simultaneously for 25 minutes in breakout rooms)

8:00am - 4:00pm RUS Breakout Session

Construction and Loan Funds Advance Procedures Workshop

This breakout session workshop will cover RUS rules and procedures with respect to contract construction, plans and specifications, bidding and negotiation, work order and minor construction, and finally advance procedures using the FRS Form 481.

8:00am RUS Presentation

The Loan Application Process: General Overview and Common Problems

Speaker TBD

What are the process/steps involved for a loan application submitted to RUS? How does RUS prioritize loan applications for review and approval? What are common omissions and problems with loan applications? These questions as well as a discussion of the loan demand for traditional RUS loan program will be covered in detail.

Loan Servicing Issues

Speaker TBD

Discussion of Loan Servicing issues including submission and review of Operating Reports / Audits and potential effect on Loan Fund Advances, TIER maintenance requirement, and expiration dates of loans.

10:00am Break

sponsored by Ericsson

10:20am Resume RUS Presentations

Environmental Reports

Speaker TBD

Discussion of the Environmental Report process from cradle to grave, with a focus on ER preparation. The discussion will also include possible streamlining of the ER process.

RUS Contract Changes Update

Speaker TBD

This session will provide a status update of changes to RUS contracts. In addition, an overview of the change in Performance Bonding Requirements of Equipment Contracts will be covered.

12:00pm Lunch

1:00pm Resume RUS Presentations

Panel Discussion of New Form 515a Units

Speakers TBD

This panel will discuss changes to the units proposed in the new Form 515a. Representatives of ACE, RUS and PCCA will participate in the discussion.

2:15pm Break

sponsored by Metaswitch

2:35pm Vendor Breakout Sessions

(running simultaneously for 25 minutes in breakout rooms)

3:00pm Resume RUS Presentations

Technical Issues Update – Advanced Services Division

Speaker TBD

Discussion of equipment and technical issues, including developments in grounding, bonding and equipment updates.

Round Table Q&A Session

Speaker TBD

4:30pm Grand Prize Drawing and Adjourn

sponsored by KGP Logistics

ACE School will be drawing for great door prizes and a special grand prize. You won't want to miss out on these!

Adjourn

association of communication engineers (ace)

ACRS 2000 Corp., Inc.
CBW Communications Engineers, Inc.
CCG Consulting, Inc.
CHR Solutions, Inc.
Communications Engineers, Inc.
Communications Network Engineers, Inc.
Compass Consultants Inc.
Design South Professionals, Inc.
Engineering Associates, Inc.
Finley Engineering Company
Fulton Engineering, Inc.
Gillespie, Prudhon and Associates, Inc.
Geotech, Inc.
Heberly and Associates
HunTel Engineering
Joseph D. Fail Engineering Company, Inc.
Kadmas, Lee & Jackson, Inc.
Ladd Engineering Associates, Inc.

McCall-Thomas Engineering Company, Inc.
Milford Engineering Corp.
Mid-State Consultants, Inc.
Mitchell Engineering
Monte R. Lee & Company
N-Com, Inc.
Palmetto Engineering and
Consulting, LLC
RVW, Inc.
Vantage Point Solutions, Inc.



Connecting Rural America



www.ace-engineers.com

Phone: 217-496-2100

Fax: 217-496-2189

events@chrsolutions.com