

Ethernet: The Next Generation

*ITA Technician's Training Conference
March 24 & 25, 2010*

*Gateway Hotel & Conference Center
Ames, IA*



Iowa
Telecommunications
Association



**Tenth Annual
Technician's Training Conference
Ethernet: The Next Generation
March 24 & 25, 2010**

ITA's Technician's Training Conference is designed to enable your telco to live long and prosper by learning the latest applications and technologies. Upon initial contact you will receive logical and fascinating knowledge from our star crew of speakers:

General Session Descriptions

Defensive Driving

**Paul Samson, Telcom Insurance Group
Wednesday, March 24th at 9:00 AM**

We will provide you with common sense and reasonable approaches to improving your driving skills. You will come away with a greater awareness of what's going on around you on the road. You will also be given some examples and techniques to take home that may benefit your younger driving children or even your spouse.

Personal Protective Equipment

**Paul Samson, Telcom Insurance Group
Wednesday, March 24th at 1:30 PM**

Safety training often misses the target because the delivery method is flawed (pure video or dry delivery techniques). Employees think that they can leave safety at the work place and forget about it when they get home. We utilize real life examples and hands on demonstrations of the effects of injuries that occur at work and home. We reinforce the importance of utilizing PPE and a safe work place at home and at work to prevent injuries to employees and their families.

Customer Service Training for Technicians

**Doug Pals, Re:Sourceful Communications
Thursday, March 25th at 8:00 AM**

Everyone says their company is good at customer service. But, do you think your customers would all agree that your company is good at it? To measure such a thing, you have to understand customer expectations: what they are, what they aren't AND how they change. Bring your stories and your questions because you will get the most out of this session if we use real life examples that you may have witnessed. Customer service is a balance of doing what you said you'd do when you said you'd do it AND managing customer expectations. We will talk about all that and how it fits into the overall sales culture your company is trying to get started.



**Iowa
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Technician's Roundtable Session

Thursday, March 25th at 9:30 AM

New this year: The technician's training committee is offering roundtable discussions on Thursday. Many ITA members comment that they get valuable information from the conversations they have at break or at dinner during the conference. We've added time in the agenda for you to take a break and talk with your peers about topics that are important to you. Learn best practices and lessons learned during Thursday morning's roundtable discussions. When you register for the event please let us know what topics you would like to discuss during this time



and the top 10 topics will be open for discussion at this time.

Breakout Session Descriptions

Carrier Ethernet

Craig Moser, Extreme Networks

Service providers offering triple play services are seeing increased revenue and customer retention. These services also place new demands on the network such as carrier-class availability, Quality of Service, resiliency and scalability. Learn more about Extreme Networks carrier-class Ethernet infrastructure which meets demand with high-performance switching solutions that support both residential triple-play service and MEF certified business services. This session will give you:

- Overview of Service Provider Ethernet Technology, Terminology and Standards
- Summary of Carrier Ethernet Architecture Variations
- Hands on Networks design with EAPS failover exercise
- Hands on Network Management scripting and reporting exercise

IneoQuest

Mark Andrews

Learn about a complete solution to monitor & pinpoint real-time Digital Video. Understand what packet loss and delay factor may mean to you, your router/switch, access gear, set top box, and what it may mean to your customer. Understand the QOE "quality of experience" for each video customer. This session will also touch upon performing a deep level dive into video artifacts related to packet loss.

FTTH Deployment

Mark Ditch, Plant Superintendent, South Slope Communications

This session will offer South Slope Communications perspective on their fiber to the home deployment. Here the pros and cons of their experience including:

- Bandwidth limitations
- Troubleshooting efficiency with fiber
- Reduced maintenance costs
- NIDS –cost prohibitive
- Electronics required offer a slow return on investment

Breakout Session Descriptions Continued

South Slope IPTV Deployment – “To Risk Creates the Possibility of Failure, Not to Risk Ensures It”.

Dan Swick, South Slope

South Slope began deploying IPTV in 2004, changing from a 330 MHz RF system, the technology was new, electronics unproven, loops too long, very little FTTH deployed, unknown territories with programmers, OTA providers, yet the need to keep the customer connected and provide the broadband pipe demanded more services, including IPTV.

Dan Swick will talk about South Slope’s deployment, where they started and where they are at 6 years later. Interaction and questions encouraged.

- Training – Techs, CSRs, Managers, probably the most under estimated item
- Your Network – plan ahead, think of the unthinkable
- CPE – Wiring the Home – labor intensive – TIA 570B wiring standard is a great start
- Manpower – installs, maintaining the network, sales and marketing your product
- Competition – how do you compare with the satellite providers?

IPTV Test Turn Up

Tim Durham, EXFO

Course description coming soon!

Wireshark-101

Mitch Stoner, South Slope Communications

Jay Nickelson, DMACC Telecom Instructor

Learn the basics of how to use a packet sniffer—WireShark software. This training will help you understand how to use a packet sniffer (protocol analyzer) to help troubleshoot any IP network. Having trouble with Set-top-box provisioning? WireShark can help! Need to see the traffic on an Ethernet segment? WireShark can show you the packets. Learn how to capture, analyze and filter traffic on your IP based networks using this free, powerful software tool.

Broadband Applications - The Next Frontier

Don Fendrick, Alcatel-Lucent

Communications companies have been hard at work upgrading their networks to deliver advanced broadband speeds. While the size of the broadband pipe is important, the ultimate goal is for the customers to access and use applications that enhance their lifestyles. This session will discuss new broadband applications and how the wireline and wireless network infrastructures are leveraged to deliver those applications.

OTN/G.709: Why this Digital Wrapper is replacing SONET as Optical Transport of the Future

Todd Murphy, Ciena

This course will offer a DWDM overview, OTN/G.709/Digital wrapper definitions, OTN framing similar to SONET, OTN value propositions, OTN applications and case studies. We’ve been deploying SONET for the better part of 18 years. As our insatiable appetite for bandwidth continues to increase and network requirements migrate from TDM to packet, it is imperative that service providers understand the new OTN standard, and why its value propositions dictate that fiber be lit with OTN... replacing SONET and older DWDM systems.



Breakout Session Descriptions Continued

FTTX & Triple/Quad Play Services Deployment—Lessons Learned

John Wiegel, JDSU

For service providers who are well into deploying triple/quad-play services over next generation FTTX networks, now is a great time to take stock of the lesson's learned. Implementing refined methodologies and test procedures for both installation and repair/maintenance tasks can provide real gains in both efficiency and customer QoE. Service providers who are planning or just beginning such a deployment can reap the benefit of these lessons learned much earlier in the process. Though the details of the implementation may vary with the size and culture of the service provider the core methodologies driven by these lessons learned are applicable to all. Key points and questions this session will address:

How do I ensure end-to-end video QoS from distribution to the display and deliver the highest level of QoE to the customer?

What are the most common in-home networking issues and what test methodologies represent the most efficient means of addressing these issues?

What outside-plant fiber (FTTP) and twisted pair (FTTN) problems have presented the greatest challenge in early through wider-scale deployment? What are the best practices for more proactively and efficiently dealing with these challenges?

For the more exotic 1 to 5% of the troubles (in-home and out) that seem to take up 50% of the time, what are some common root causes and best approaches to dealing with them.

Hotel Information

Gateway Hotel & Conference Center

2100 Green Hills Drive, Ames, IA 50014, (800) 367-2637

Group Code: ITA Tech Training

Hotel reservations cut-off date: March 2, 2010

Rate: \$102 double/king plus tax

Thank You 2010 All Event Sponsors



Thank You 2010 Technician's Training Sponsors:



Thank You 2010 ITA Technician's Training Committee:

Jay Nickelson, Chair, DMACC Telecom
Ivan Dalen, River Valley Telecommunications Coop
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Dan Swick, South Slope Communications Cooperative



2010 ITA Technician's Training Conference
Ethernet: The Next Generation
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Online registration is available at www.i-t-a.net

REGISTRATION FORM

Name: _____

All confirmation letters & event details will be emailed to each attendee:

Email Address: _____

Company Name _____

Address: _____ City: _____

State, Zip _____ Phone: _____

Registration Type ITA Member--\$299 Non ITA Member--\$550

Please select the breakout sessions you plan to attend:

Wednesday, March 24th Breakout Sessions:

11:15 AM FTTH Deployment IPTV Test Turn Up Carrier Ethernet Video Quest

IneoQuest

2:30 PM IPTV Deployment ONT/G.709 FTTX/Triple & Quad Play

Wireshark 101

4:30 PM Star Crew Reception Yes No Maybe

Thursday, March 25th Breakout Sessions:

Roundtable Topic Suggestion: _____

10:45 AM (Repeated from Wednesday)

FTTH Deployment IPTV Test Turn Up FTTX/Triple & Quad Play Carrier Ethernet

Broadband Applications-The Next Frontier (Only offered Thursday)

Total Registration Amount Enclosed

Please charge the above total to my: MasterCard Visa

Account #:	Exp. Date:
Name as it appears on the card:	
3 digit Security Code:	Signature:

Please make checks payable to ITA and mail this registration to 2987 100th Street, Urbandale, IA 50322.

REGISTRATION DEADLINE: All registrations must be received by **March 18, 2010**. ITA will not refund registration fees after March 18, 2010.

Cancellation Policy: Full refunds will be provided for cancellations made in writing by March 18, 2010. Any no-shows will be charged in full. Refunds will be issued after the meeting.



You can also Register online at www.i-t-a.net