



TECHNICAL COLUMNS

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CABLE-TEC EXPO SHOW PICKS

By **RON HRANAC**

It was hot and humid, which is normal for Orlando in June. Thank goodness the Orange County Convention Center is air conditioned! That's where more than 10,700 folks met for SCTE's Cable-Tec Expo 2007, putting attendance up 6 percent from last year's confab. Floor traffic was good, with many booths packed to the rafters Wednesday and Thursday. Friday was much quieter, as is typical on the show's last day. Thanks to SCTE staff and the Expo '07 Program Subcommittee for a job well done.

The opening general session included a keynote by Kyle McSlarrow, NCTA president/CEO. Industry vet Paul Maxwell led a one-on-one with McSlarrow after the keynote, then moderated the CEO panel. Seachange Chief Strategy Officer - and outgoing SCTE Chairman - Yvette Gordon-Kanouff moderated this year's CTO panel.

Hearty congrats to the Society's newly elected officers: Charter's Tom Gorman, chairman; Scientific Atlanta's Frank Eichenlaub, western vice chairman; Time Warner's Steve Johnson, eastern vice chairman; Cox's Vicki Marts, secretary; Comcast's Greg Allshouse, treasurer; and Time Warner's Bob Macioch, additional executive committee member. Especially big tips of the hat go to Deployment Technologies' Ron Brunt, who garnered SCTE's Member of the Year award; Tom Gorman, inducted into the Society's Hall of Fame; Sally Kinsman, SCTE Chairman's Award recipient; and Time Warner Cable's Carolyn Terry, winner of the Women in Technology Award. The rest of Expo's award recipients are listed at www.scte.org/news.

Because of an absolutely hectic schedule, I didn't make it to any technical workshops other than the two that Broadcom's Bruce Currivan and I did on Thursday. Thanks to the roughly 300 intrepid souls who put up with our explanations of carrier-to-noise ratio (CNR), modulation error ratio (MER), energy-per-symbol to noise-density ratio (ESN0), and other ways to characterize those seemingly ubiquitous digitally modulated signals on our networks. For the truly curious, the first half of our Expo paper appeared in the June issue of *Communications Technology*, and Part 2 was in last month's issue. Both require a strong cup of coffee.

Goodies and gadgets

The hectic schedule also meant that I didn't get to see the entire exhibit hall, but I find time in between meetings to wander most of the show floor looking for interesting technology, goodies and gadgets. Here, in no particular order, are my Expo '07 picks.

Have you ever tried to find your way through a maze of data cabling or trace a cable from one device to another? Sort out opens, shorts, or reversed pairs? Tone active circuits? Figure out if an RJ-45 jack is for data, phone, or is even working? Fluke's IntelliTone 200 Toner and Probe Kit (p/n MT-8200-60A) may be the answer to these questions and more. The handheld tester comes with the toner and probe, coax F-connector adapter, RJ-11 and RJ-45 patch cables, test leads with alligator clips, and even batteries.

www.flukenetworks.com

Given the age of General Instrument (now Motorola) IRT-1000 or IRT-2000 integrated receiver/transcoders, their internal batteries have probably seen better days. WooshCom was showing a clever battery replacement kit that can be installed in a live IRT that is still authorized and passing signals to customers.



The company's BK-1000 is expected to ship in the third quarter of this year and sell for \$99 each. Forget replacing the IRT or sending it to a repair center for new batteries. This kit is designed to be field-installable by a headend technician. www.wooshcom.com

Those of us who have done duty as bench techs have made plenty of insertion loss, frequency response and return loss measurements with a bench sweep or perhaps even a network analyzer. But what to do if you can't afford this kind of test equipment or simply just need to make some quick measurements and don't want to pack the bench gear out in the field? One solution is ViewTeq's VNSB-1000, a 5-1,100 MHz broadband noise generator and return loss bridge, all built in a compact handheld instrument. Using any modern signal level meter (SLM) that has spectrum or scan mode in conjunction with the VNSB-1000, one can measure gain, loss, frequency response and return loss. This \$500 gadget is scheduled to be available this summer and will come with a calibrated mismatch. www.viewteq.com

Global positioning system (GPS) technology has without a doubt enhanced signal leakage detection technology. VGI Solutions' CPAT leakage monitoring system is designed to be an install-and-forget solution. Not forget to use it, but forget it's there. The GPS-equipped RF receivers are installed in cable company vehicles, and they begin monitoring the plant whenever the vehicles are started. No on/off switch to deal with, no intervention by the driver to do leakage monitoring. Data is stored as installers and techs drive around doing their normal work. That same data is automatically uploaded to a Wi-Fi hotspot installed at the cable company warehouse or other site where vehicles return at the end of the day. The captured data is then processed by the CPAT server, allowing leaks to be located and mapped and management reports and work orders generated (and even emailed to techs). The system ties in with cumulative leakage index (CLI) calculation, too. www.vgisolutions.com

Did you know that one of the biggest problems affecting the performance of optical transmission gear is dirty or improperly cleaned connectors? MicroCare had a booth display with all kinds of fiber cleaning solutions. Some of the products I looked at included Fiber Care Fiber Wipes (lint-free wipes in a handy dispenser), pump dispenser based fiber connector cleaner, fiber preparation fluid (a high purity solvent), and a pre-packaged lint-free fiber connector cleaner called FiberAide 1. To use it, simply open the package, put the back of the cleaning pad on, say, the palm of your hand, and wipe the connector end faces on the pad. One testament about Microcare's products was seeing some of them in several nonaffiliated fiber equipment manufacturers' booths. www.microcare.com

When I saw Trimble's booth, the first thought that came to mind was Trimble GPS receivers. Cool - more toys! A closer look revealed this to be Tripod Data Systems, which is owned by Trimble. On display were Trimble's Recon and Ranger handheld computers, which meet mil spec. Of special interest was the TraxFast MC2 asset tracking for utilities, which combines asset identification using bar codes or RFID tags, maintenance scheduling, GPS-based mapping and data storage. All of this can be tied together with software from eTeklogics. www.tdsway.com and www.eteklogics.com

And my Expo 2007 show favorite? Drum roll please

JDSU introduced a new measurement feature for their line of digital service activation meters (DSAMs) called digital quality index (DQI). DQI measurements are supported in any DSAM that includes DOCSIS 2.0 chipsets - those manufactured since about December 2006 - by upgrading the firmware to Version 3.2. Older DSAMs require a hardware upgrade. OK, so what is DQI? It's a measurement technique that automatically evaluates quadrature amplitude modulation (QAM) signal performance on a scale from 1-10 and can plot a time history for tracking down those nasty intermittent problems. The DQI can find gremlins that elude traditional bit error rate (BER) and MER measurements. For instance, an in-booth demo with low level sweep didn't indicate any problems on a QAM analyzer's BER measurement, but DQI showed it. www.jdsu.com

See you next year in Philadelphia, Pennsylvania, June 24-27!

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