



TECHNICAL COLUMNS

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BROADBAND: BROADBAND PLUS SHOW PICKS

By **RON HRANAC**

As I write this, I've just returned from December's "Broadband Plus, The New Western Show" in Anaheim, Calif. The convention's name was changed to Broadband Plus for 2002, but word has it the new moniker will be dropped in 2003, and the confab once again will be the Western Show. Two downers about December's get-together: Attendance, at just under 10,000 (down from 17,000 in 2001, and way down from 33,000 the year before that!), and the lack of programmers. The glitz and fun of HBO, Disney Channel, CNN, ESPN and the rest have been gone for a couple years now, and to be honest, I miss the hubbub of the old days. Yeah, I know, times are changing.

Despite the downturn, there was plenty on the plus side. The opening general session—featuring a very informative interview with Comcast's Brian Roberts—was packed to the rafters. The technical sessions, organized by SCTE, also were well attended. The session I moderated, "Broadband's Role in the Networked Home," was no exception. I'd like to pass along a big thanks and a tip of the ol' hat to panelists Oscar Marcia, chief security architect, CableLabs; Andrew Cornford-Matheson, product release manager, Core Networks; and Elisa Camahort, director of product marketing, Terayon Communication Systems, for presentations well done.

The California Cable Telecommunications Association and CableLabs teamed up for the annual CableNET exhibit, once again a major must-see part of the show. Hard to believe this was the tenth year that CableNET has been showcasing the latest technology at Western. CableNET's exhibits this year focused on five areas: broadband phone, enhanced digital services, broadband innovations, home/office networking and interactive. Also featured were a cool broadband gaming exhibit and Email Central, where show attendees could check email!

As usual, I managed to sneak away from booth duty for part of the show and hit the exhibit hall in search of new, clever or interesting gadgets and technology. Here, in no particular order, are a few of my favorites.

Home networking goodies

Wandering through the Linksys booth was like walking down the home networking aisle at CompUSA. Well, maybe even better, because of the variety of gadgets that Linksys had on display. In the wireless arena, I saw the company's access point and router with four-port switch; PCI, CompactFlash and PC cards; USB network adapter; and a wireless print server.

For wired home networks, there were the usual cable/DSL routers with multiport switches and all kinds of computer interfaces, as well as the company's cable modems. Lots of neat goodies! CableLabs announced in December that Linksys was one of two vendors to receive CableHome 1.0 certification for one of its residential gateway products. (www.linksys.com)

Love at first sight? Well, almost, at least for a gadget nut like me. Motorola's booth personnel had to run me through a metal detector just to make sure I didn't, uh, forget to put the new SBG1000 wireless cable modem gateway back on the display stand after I was done pawing it. The SBG1000 features an integrated SURFboard cable modem, 802.11b wireless access point, Ethernet router with five-port 10/100 switch,



Windows/Mac/Linux print server and firewall—all in one box! Retail availability is expected during the first quarter of this year. (www.motorola.com/broadband)

My favorite Wavecom product was its MARQUIS (MPEG Re-Mux QAM Upconverter Integrated System) high-density gigabit Ethernet (GigE) gateway. It supports 24 quadrature amplitude modulation (QAM) channels and two GigE fiber interfaces in a one-rack unit (1.75 inch height) chassis. That's no typo—two dozen QAM channels in one RU! MARQUIS takes Moving Picture Experts Group (MPEG) digital video from a GigE interface and converts it to QAM digitally modulated carriers in the 450 MHz to 860 MHz range. (www.wavecom.ca)

Conduit location made easy

CommScope has a conduit line called ConQuest, which includes varieties of toneable conduit. OK, not particularly high tech, but certainly one of those things that I wish had been available back in the days when I worked in the field. Did you ever have a situation where you were trying to locate empty conduit that's been in the ground for awhile, or conduit that has dielectric-type fiber in it? Kinda hard to do a locate, huh? Not any more. The ConQuest toneable conduit has an 18 gauge fluoropolymer-coated copper clad steel tone wire embedded in the wall of the conduit. Clearly one of those "why didn't someone think of that before?" products. Neat idea! (www.commscope.com)

For those of you in a lab, manufacturing or production environment, or maybe even a large system, and needing a Data Over Cable Service Interface Specification (DOCSIS) protocol analyzer, Filtronic Sigtek has available its ST-260B and ST-260BE DOCSIS RF Tracers. These devices demodulate and decode DOCSIS 1.0 and 1.1 time division multiple access (TDMA) signals. Sigtek's new ST-260C DOCSIS 2.0 Tracer takes care of DOCSIS 2.0 TDMA, advanced time division multiple access (A-TDMA) and synchronous code division multiple access (S-CDMA) signals, and is backwards compatible with DOCSIS 1.0 and 1.1 modulation formats. (www.sigtek.com)

Improving system reliability and availability are at the top of the list for most cable operators these days, and one tool for achieving that is the use of effective surge suppression devices at critical locations throughout the network. Signal Vision has a new surge protected ground block—they call it a 1 GHz surge protected bonding block, and it goes by model number SV-GB-SP. The product is UL listed, and is rated by the manufacturer to 500 amperes of current suppression capability. The F-connector will accommodate 59 series through 7 series cables without damaging the ground block's center conductor. (www.signalvision.com)

I can't tell you how many times I've seen situations in headends, hubs and even nodes where a dirty fiber connector caused all sorts of grief. How can you keep the fiber's ferrule endface clean? One answer is Neptec's Fiber Clean family of products that use a dry, dust-free, alcohol-free cloth to do the cleaning. The products are available in reel-type, card-type and stick-type (1.25 mm and 2.5 mm sizes) cleaners. I especially like the card-type cleaners, which provide up to 120 cleanings in a shirt pocket-size holder. John Carberry, Neptec's CEO, is an amateur astronomer like me. He trusts his products enough to use them to clean the multicoated optics on his telescope. (www.nepopt.com)

Laptops team with testers

Sometime last year, I got a brochure in the mail about Panasonic's new Toughbook series of laptop PCs. Toughbooks are laptops that have been ruggedized for field use, can be dropped, and take all sorts of other abuse. The Toughbook has been teamed up with Tempo's Virtual Instrument Package (VIP) modular test equipment that interfaces with the rugged laptops. The first cable product is the VIP signal level meter. Other available modules include a time domain reflectometer (VIP TDR) and a telco troubleshooting module called the Tempo Sidekick. Look for other cable-specific features and capabilities in the coming months. (www.tempotextron.com and www.panasonic.com/computer/notebook/html/01.asp)

PCI Technologies' SCN-Managers are standalone combiners for forward and reverse applications. The

forward narrowcast combining unit has outputs for up to 24 transmitters, and combines broadcast with targeted narrowcast services. The design allows migration from 1:24 to 1:1 combining without the need to rewire the headend. A similar product for reverse combining/splitting handles outputs from up to 16 receivers, and will allow migration from 16:1 to 1:1 combining, also without the need to rewire. (www.pci.com)

And what was the most interesting technology at Broadband Plus? I think Sony's Passage takes the cake. If Passage works as advertised, it could shake up the whole digital video and conditional access space. The idea is that equipment from multiple vendors will be able to co-exist on the same network. (www.sony.com/passage)

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