Private Cable Operators Meet in Orlando

The annual IMCC meeting in Orlando showed an organization between two worlds – coax and fiber

By Steven S. Ross ■ *Editor-in-Chief*

The Independent Multi-Family Communications Council's annual meeting in Orlando last May revealed an organization in transition on two fronts: Technology and economics. On the technology side, not many of the IMCC's private cable operator-members have dabbled in fiber. Yet, many of the exhibitors and other attendees represented the fiber revolution. On the economics side, PCOs are well aware that RBOCs such as Verizon are major new competitors in the video market, and that satellite TV operators have cut deeply into PCO markets as well. What's more, offering services beyond the traditional video stretch some small PCOs' management skills and working capital.

Many attendees talked privately (and a few talked publicly) about moving to CLEC business models. As competitive local exchange carriers, they enter into long-term agreements with homeowner associations and building managers – often in competition with other CLECs and telephone companies, as well as with big MSOs (franchise cable operators such as Comcast and Time-Warner).

IMCC executive director Bill Burhop makes a point.

Burhop: "There would be a lot more PCOs except for the fact that there are so many schlock outfits. The industry will never reach its potential if we're all flippers.... More CLECs will be in the room in a few years."

IMCC president and BBP columnist Bryan Rader of MediaWorks addresses a full house at IMCC annual meeting.

Will PCOs Become CLECs?

Disappearing are the days when a PCO could run at cash flow breakeven, nurturing a customer base until the time was ripe to sell to one of the industry giants. Said Bill Burhop, executive director of IMCC: "There would be a lot more PCOs except for the fact that there are so many schlock outfits. The industry will never reach its potential if we're all flippers…. More CLECs will be in the room in a few years."

Bob Grosz of Pavlov Media agreed. "The entrepreneur moves on but the operator stays. Build your business to be profitable, not to flip, and you have a better exit strategy and also the ability to buy others' systems. He also noted that CLECs that are partly owned by developers provide the developers with "flip insurance."

But just as many said – both publicly and privately – that they were doing just fine as PCOs. One of those was Bryan Rader, president of an Atlanta-area PCO, MediaWorks, and a regular columnist for Broadband Properties. He also said satellite companies are newly vulnerable. "Dish Network has 12 mil-

Design Advice for Fiber in MDUs

Richard Holtz of InfiniSys said it is wise to "keep your video and data plant separate, so if a virus or denial of service attack drops the data side, video still works." This does not mean using separate distribution cable, however – just separate routing logic and central office equipment.

"Fiber is so cheap, run fiber, stick it into the box," said Don Johnson of Paradigm Marketing Group. "The more robust your architecture is, the better."

For IP, Aaron Cason of Hitachi touted IGMP (Internet Group Management Protocol) as better than unicast. IGMP provides a way for an Internet client to report its network "group membership" to adjacent routers. (In a video IP network, standard routers assume that they can't feed data into a port that they get no data out of. So fooling routers into using a one-way channel, the norm for video, is tricky, especially without operator intervention and on a large scale.)

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Cason got a laugh with a slide showing FTTT – fiber to the trailer: An ONT attached to the side of a mobile home. He noted that with a passive optical network, the CO can be as far as 12 miles from the customer home, and that the emerging GPON equipment offers "better ways to handle T1 and T3 [standard telephone] services, and video with less jitter and latency." He showed data suggesting that P2P "active" networks have field maintenance costs 20 percent higher than GPON.

Holtz said Verizon "over the next year or two, will upgrade from BPON to GPON, to get more bandwidth and video," and that satellite providers are losing customers over HDTV offers. "One out of every two TVs is HD or HD ready. They are under $500 at Sam's Club. HDTV is happening much faster than expected," he said.

Holtz noted that property managers tend to change units' kitchens "every 20 years, maybe 15. That's when you might rewire a building. So ask now 'what do I put in today to keep from opening up the walls for 16 years?" He also noted that fiber is the same price as copper now; "it was 10 times the price 10 years ago." Also, Holtz noted, lightning does not affect fiber, whereas it causes surges that wipe out electronics connected to coax.

"Technology is all about the user experience, not the technology," Holtz noted. "It is the leasing agent's job to explain the technology. So anything we can do to provide true plug and play experiences, helps us sell the technology," he said.

Asked about wireless, Holtz said the technology was difficult but worth looking at. "Our firm has been hired by two universities and many MDUs, to do wireless. There are managed and unmanaged solutions. We have one customer with 4,000 beds, 1,000 units. Wireless saved $400,000. It worked fine when they tested before occupancy. They then put mirrors in the bathrooms [it blocked WiFi] so now they have only 80 percent coverage. We will spend $2 million rather than the $1.2 million original build to fix the problem."

Cason noted that 100 channels of HDTV "is 100 GB bandwidth – and that is beyond Gigabit Ethernet. "So we put 6 to 12 channels on each type of fiber. You'll need multiple strands of single-mode fiber."

Cason said "with single-mode fiber, allow 6 feet of slack so you can cut off the old connector."

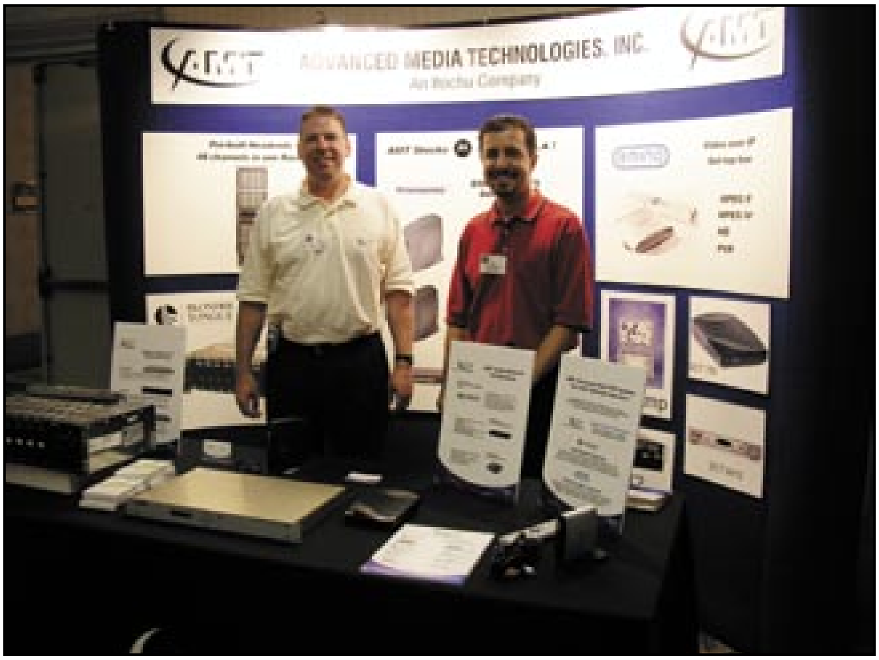
Mark Boxer of AFL Telecommunications said "we recommend two fibers to each unit. It doesn't add too much to the deployment cost."

Aaron agreed: "2- or 4-fiber bundles, single mode, for the 16-year future proofing."

Holtz noted that technology is changing, even for coax. "For DirecTV it was always multi-switches. Now they use splitters, too. DirecTV's Tatem said this is because "it takes new technology for the set-top box to communicate to the wiring closet and overcome losses due to daisy chains or multiple splitters. My opinion is always not to force specs. You have to work with what is out there. An RF solution still needs an RF tuner."

Vern Swedin of Pace Electronics said, "Since three years ago, there has been a lot of change. You are the product of what you invest in personally and whom you associate with."

Jeff Maxwell of 4COM-Teleguide said, "Change is very, very slow. The reality of our marketplace is that it is a really slow-change marketplace, so I appreciate what Vern Sweden says, but ways to grab other content are not going to undermine existing businesses. People want to be entertained."



Advanced Media Technologies booth featured IPTV products as well as RF.

Mike Whaling of InfiniSys showing new between-the-studs connector box (see article on Verizon's new Dedham deployment, this issue).

lion customers, DirecTV 16 million, but they are a single-play product in a triple-play world," he said.

On the other hand, the breakup of Adelphia, with Comcast and Time Warner splitting 5.2 million customers, is worrisome. "Comcast is a fiercer competitor than Adelphia," Rader noted.

"We offer same-day service. We can customize content on a property-by-property basis. What about lower income C and D properties, or properties that are 30 percent Russian, or Spanish?" said Rader.

Rader, as he has in our pages, also advocated getting into ancillary businesses, selling other things to cable customers. "Why can't we sell renters' insurance to tenants? Rent them furniture?"

John Russo of the Broadband Consulting Group said, "Professionally, I don't agree with the PCO model for a real estate developer who is in the business long term. Last year I took seven PCOs out of the market. Circuit City beats their rates, selling individual [satellite] dishes everywhere. DirecTV gives a better deal to Circuit City than to the PCO. Four rooms, free installation. It's the easiest way to get video for a new resident, who has just paid rental deposits. It involves the least capital up front. Also Circuit City and Best Buy have full-page ads, radio ads. Their marketing budgets surpass any PCO in this room. How do I tell the PCOs that at the end of the day they really don't care about you? Every PCO charges for the first DirecTV receiver. There's also the issue of customer needs. In Pittsburgh Comcast claims there are no Hispanics there. But the property is 20 percent Hispanic. I've had at least five properties that have dishes because of the Hispanic issue.

One audience member noted that "A PCO has to invest a significant amount on headends, antennas; it costs a lot of money to enter into the business. It's much different than Circuit City, which gets a few hundred dollars up front, but of course no residuals."

In response, Mike Krupnic said, "I run the MDU unit at DirecTV. I'm new – came on board on January to create an MIS model to interface five systems with SAP so we can address the problem. My opinion is that if it is your building, everybody should know they have an option not to have dishes on their balcony. There should be constant marketing. We're not proponents of dishes."

Scott Musgrave of Digital Streets, a growing California PCO said, "I'm also recent to the industry. We're part of a much bigger industry and we must band together and recognize that we all have the same goals, challenges, and adversaries. We could gain from market intelligence, who is growing, how are these services from telcos, etc, growing? What is the pricing? My company does it. Real estate developers, HOAs, first thing out of their mouth is pricing. What are MSOs offering that are new and different to developers? What about best practices, case studies, back-office strategies that really work in this market, whatever."

AFL Tele's Mark Boxer reported plenty of interest in fiber products among PCOs.

Krupnic: "I run the MDU unit at DirecTV. I'm new – came on board on January to create an MIS model to interface five systems with SAP so we can address the problem [of DirecTV retailers undercutting PCOs]. My opinion is that if it is your building, everybody should know they have an option not to have dishes on their balcony. ... We're not proponents of dishes."

Franchising Issues and Rights-of-Way

Another BBP columnist, attorney Carl Kandutsch, briefed developers and PCOs on ways to get around city franchising rules when crossing a public right-of-way with fiber or coax. If you're building a development with streets, "Grant a private easement for broadband connections, under the public right-of-way before it is dedicated to the municipality," he said. "The legal argument in that situation is that the facility is not using the PROW because the PROW does not include the easement," he added.

When does a right-of-way actually become public? "It depends on state law, Kandutsch said. "Dedication to the public means some sort of official act whereby the local government declares itself responsible for maintaining the right-of-way and also accepts legal responsibility" for liability. Kandutsch emphasized, "There has to be some official action. In general, a right-of-way becomes dedicated in a new development when a planning board approves the plat."

But some states require a more positive action by government, he said. "In California, for instance, a right-of-way does not become public until there is a separate [board] vote to accept it, and only after all the improvements are made – paved over, and so forth."

Kandutsch noted that public rights-of-way could be crossed by an infrared free-space optics link, or wireless signals, because these crossings do not "affect the right-of-way" and thus the municipality can't set requirements for the crossing.

Mark Boxer of AFL Telecommunications asked, "We do FTTH primarily in gated developments. We have seen two headends on different ends of the community to avoid public rights-of-way. Yet broadband service enhances the value of the development to the community. Can't municipalities see that?"

Kandutsch said developers certainly had leverage to ask municipalities to forgo the franchise process and franchise fees in such cases. But others noted that existing franchise operators could complain that a competitor who didn't have to pay 5 percent of its revenue to the municipality is undercutting them.

A PCO asked, "If the community gives you a permit to trench the public right-of-way, and you are still using it, do you still need a franchise?" Kandutsch said, technically, that a franchise was required, although officials might ignore the requirement. The test, he said, "Is what kind of burden are you imposing on a public government."

Another PCO mused, "How deep under a public road does the municipality have the rights? Other utilities [like electricity, water and sewer] have regulated depths. Maybe could PCOs get rights 20 feet down; 100 feet down?"

Kandutsch said, "for the FCC and in judicial decisions the key point is the crossing, in any way. It's a valid thought that addresses the issues, the rationale, but it is not a thought that is recognized by the decision makers."

Bulk Agreement Issues

Kandutsch said PCOs might find it difficult to create airtight contracts with developers for bulk agreements to deliver services. (In a bulk agreement, all residents have to pay for service whether they use it or not, but prices are much lower than they otherwise would be.) "Developer contracts in many states can be voided by government or home-owner associations," said Kandutsch. "So keep every [customer] happy. Write a good bulk agreement and have the HOA approve it, too, not just the developer."

Some states forbid providers from paying a “door fee” for exclusivity, but the fee can often be paid in other ways. Noted one developer: “We build for the elderly, and we’re soliciting for a bundled service provider. South Carolina statute prohibits door fees for exclusivity. It applies to all HOA developments. But the door fee can be called a marketing fee, maybe [in exchange for putting] a sales kiosk in the common area.”

Another questioner noted that Florida law is similar but that it has a twist: “The Florida bill is anticompetitive. The telco is relieved of access responsibilities if an owner makes an exclusive agreement for video service. It gives telcos tremendous leverage to suppress this…. Many insurance carriers want copper-based 911, security and fire service. Having phones in elevators, and at pools, and using E-911, is not good enough.”

Multicom’s booth was popular, and not just for the wide variety of give-aways.

Greg McDonald, Director of Telecommunications for Camden Property Trust, said, “Camden’s ability to provide a compliment of high quality amenities to our residents is our number one priority. Residents who do not get the services and amenities they desire will quickly move to another community that provides the services and amenities they demand. To put this in perspective,

Richard Holtz of InfiniSys lectures. Behind him, left to right: Dominic Ruggerio, Multicom; Steve Strong, EchoStar/DISH Network; Aaron Cason, Hitachi Distribution Technologies; Richard Tatem, DirecTV.

income received from a typical revenue share program would equate to less than one percent of the total income for the community. The loss of rental income from just one resident, because of poor service, would wipe out any gains from a revenue sharing program."

Kandutsch noted that phone companies often say they can't invest in phone lines if they are only providing phone service. He said, it is it possible to have exclusivity for an entire triple play bundle in many places "but you have to write the contract for what is possible for any jurisdiction."

Another Argument for CLECs

Various conferees begrudgingly suggested that such issues favor PCOs moving to become CLECs, which allows them to be the carrier service of last resort and supply hard-wired switched telephone service where necessary to gain the rest of the business. Richard Holtz of InfiniSys noted that "Verizon will eventually sell its POTS [Plain Old Telephone Service]," so these kinds of problems will disappear.

New products are indeed stretching bandwidth and quality-of-service needs, said Dominic Ruggerio of Multicom. Ruggerio noted that the new PacketCable spec, 2.0, released this spring to run on DOCSIS 1.1 as a common platform to deliver real-time IP multimedia services, allows cable operators to deliver data and voice traffic, and "covers SIP stuff, including gaming, wireless, and so forth, so the marketplace is expanding."

Ruggerio said that when it comes to providing phone service as VoIP, the typical PCO has an edge because the PCO knows its customers better than any large incumbent. VoIP also increases value to the customer, making churn less likely. The typical cable/coax technology, DOCSIS 1.1 or better, is compatible with E-911, he said, and offers good quality of service with monthly VoIP customer prices in the \$35 to \$45 range. "Smaller operators are doing SIP, the technology used by Vonage and other third-party vendors," he said, and many offer a "hosted solution, with all equipment in the local point of presence."

The Push to Fiber and IP

Don Bowen of Convergent Broadband Communications (Tempe, Arizona) said program providers don't want to give everybody IP rights. When he goes to buy programming, "Napster always comes up. Video programmers will change, as Napster did to music. If you are not in high-speed data, you need to be. That adds to your model, your existence, and if you don't, the property owner will look elsewhere and the guy they bring in [for data] will be video competition with you."

Bob Grosz noted, "The CEO of NBC said a month ago 'I don't see how IPTV is going to affect our business.' That [dumb statement] will be with him for the rest of his life." And while it is true that "Video and phone weren't meant to work in a digital environment, neither was the Bible but I can get that on line, too."

Richard Tatem of DirecTV said demand for satellite capacity is "insatiable," and that the Ku/Ka satellite bands are saturated. This drives MDUs to upgrade their systems.

The Ka band (30 GHz down and 40 GHz up to the satellite) is the most recent spectrum allocated. Ku is 14 GHz down, 12.2 to 12.7 up. The higher Ka frequency translates to higher bandwidth. The typical satellite downlink for MDUs changes the frequencies for single wire for delivery to units.

"You need an array of dishes to pull down the signals, then use L-band [950 to 2150 MHz, which coax can carry] to get the signals to a distribution box, to integrate them onto a single wire.

"Once the property size goes to 500-1000 feet, you need fiber," he said, because distribution losses are so high with coax.

"Daisy-chaining [linking each unit to each other, on a cable run back to the distribution closet] is a challenge for L band distribution. Bad losses," he noted.

Tatem suggested migration to video distributed over IP rather than as an L-band RF signal.

"It is wiring-agnostic [compatible with fiber as well as coax], has a lower installed and life-cycle cost, supports local MDU channels and other advanced services, and supports a back channel" for two-way communications and control. Also, "IP only streams content when required, so it is more efficient." **BBP**

About the Author

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