



The Exaflood: Smaller Cable Companies Understand

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When it comes to video, 2007 is clearly a pivotal year. Usually, when an industry faces such a period, the diversity of opinion among its leaders starts to close. This is simply not happening. So who will survive the decade?

The major franchise cable operators say everything is going their way. They are taking DSL and voice customers from the telcos. As of this spring, cable companies had 10 million voice customers (mainly VoIP) and 30 million for data. The telcos, as of yet, are not taking many video customers from cable. The difference in numbers is startling. A million customers have signed up for telco video. Some have come from direct broadcast satellite service, but most were once customers of large franchise cable operators such as Comcast, Cox and Time Warner.

"Why change anything?" the cable operators say. This view was overwhelmingly in evidence at this spring's Cable Show, the annual conference and exhibit of the National Cable & Telecommunications Association.

The Race Has Just Started

The picture was entirely different over at the much smaller spring conference of the private cable operators, the Independent Multi-Family Communications Council, reported in this issue. At the IMCC, conferees laid out a clear route to providing video services that will require far more bandwidth than coax can deliver. That route involves:

- More broadband technology within MDUs. This is often fiber all the way to individual dwelling units. But it also involves broadband over powerline, point-to-point and mesh wireless, Ethernet over coax, and even Ethernet over Cat5 or Cat6 cable from a fiber in the basement.
- More access to metro Ethernet fiber

networks, and even to intercity fiber to reduce the number of on-premises headends. There's been an explosion of new products designed to bring smarts to the edge of the network, to more easily handle streaming video, video on demand and other broadband services.

- Consolidation and consideration of operating as CLECs, to expand opportunities for financing and access to broadband technology.
- Flexibility in billing, customer self-provisioning, and of course in programming – flexibility made possible, in large part, because of Ethernet-based standards.
- Less-than-full embrace of VoIP, which they may have to give away to promote other, more profitable, services.

The move among IMCC members to embrace the bandwidth realities has been steady, but until this year it was incremental. No longer. There are now PCOs with 100,000 homes passed. One provider mainly to greenfields, Connexion Technologies, has 250,000 homes passed with fiber or under contract to be passed.

The complacency among major franchise cable operators – MSOs – has thus been all the more startling, despite their being ahead in the early phases of the race. The anchorman on their relay team? DOCSIS 3.0. With channel bonding (which requires more operating expense for its complexity, and fewer homes passed per DOCSIS node than the current 500 homes maximum) they can eventually serve 100 Mbps downstream.

So Why Worry?

For one thing, upstream bandwidth is limited and will remain so, even with the advent of CWDM, unless the number of nodes increases. The typical cable offering is 6 to 8 Mbps down and 384 to 512

Kbps upstream. For another, the MSOs are already cannibalizing the number of conventional SD channels they are offering, to deliver more HD and video on demand along with more data. And they are unofficially limiting uploads by heavy users to 100-300 gigabytes a month. To put that into perspective, at today's 5 Mbps upstream typical FiOS speed, that can be handled with only about 55 hours of upload connect time – if telcos had networks as badly prepared for it as cable has.

Telcos have an easy upgrade path as they install more inexpensive backhaul fiber and central office equipment. Cable simply can't do it.

OK, they dismiss projections by this magazine and others that suggest 50 to 100 Mbps symmetrical service will be desired by most American customers by 2012. But what about Japan, where DSL use is declining and DOCSIS is barely a blip on the radar as FTTH and FTTB providers add 300,000 new subscribers a month?

And what about 2010, when Verizon will have 18 million US homes passed with fiber and other telcos, CLECs, and muni systems will add another 8 to 10 million? Their combined video take rate should be at least 30 percent. Even at this lowball projection, that's 10 million new video customers taken mainly from the existing 65 million cable video customers.

That should focus the minds of cable operators – and of property owners looking for providers. Want to know more? Read our articles this month on the coming exaflood, and on the IMCC. Then come to our Broadband Summit in Dallas this September.

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