

New Report: Cable MSOs Facing Bandwidth Crisis

Surging demand for high-definition TV, video on demand, time-shifting video services such as digital video recorders, and Internet video is rapidly depleting cable networks' bandwidth reserves and will force multiple service operators (MSOs) to upgrade their networks with new technologies aimed at conserving and reusing network bandwidth, according to a new report from Heavy Reading (www.heavyreading.com).

"Cable network operators have come to realize that customer demand for bandwidth, which has been climbing faster and higher than anyone expected, will soon outstrip their ability to supply that bandwidth with technologies now in place," notes Alan Breznick, the author of the report. "Competitive pressure

is far from certain, according to Breznick. In addition to questions about technological complexity, the cost associated with deploying SDV on a wide scale may be higher than MSOs now anticipate, he warns: "At least one large North American cable company estimates the price tag to be as high as \$32 per home passed, which is double the early estimates for SDV deployment."

Heavy Reading says North American cable operators will roll out SDV in a big way in 2008, after several cautious years of lab tests, field trials, and limited pilot deployments. The two largest MSOs, Comcast and Time Warner Cable, both plan to introduce the technology in most, if not virtually all, of their markets by the end of 2008, while Cox and Charter, which have just started deploy-

MSOs, particularly on the critical upstream side.

Cable operators will need to continue to pursue other technology options along with SDV to improve bandwidth efficiency in their networks. MSOs will likely have to combine SDV with a number of other techniques – including reclamation of more analog channels, further node splits, MPEG-4 compression, 1GHz plant upgrades, and 3GHz spectrum overlays – to create enough bandwidth for all of the HD, niche programming, and other new digital services they need to deliver to meet competitive threats from satellite and telco IPTV service providers. **BBP**

While switched digital video will buy the industry time by freeing up some digital spectrum for other, more profitable uses, the technology won't actually create any new bandwidth for MSOs, particularly on the critical upstream side.

from satellite network operators and telco IPTV providers will force cable MSOs to find solutions to their bandwidth problem sooner rather than later."

Cable operators are evaluating an array of new technologies to expand their overall radio frequency (RF) capacity and use existing bandwidth more efficiently, Breznick says. "Over the past year, Switched Digital Video (SDV) has emerged as the leading choice on this menu – beating out such alternatives as fiber node segmentation, MPEG-4 video encoding, improved quadrature amplitude modulation, plant upgrades to 1GHz capacity, out-of-band spectrum overlays, and deep-fiber drops, among others," he says.

But although SDV, which conserves bandwidth by sending consumers only the cable channels they have selected, is now a frontrunner in the MSO bandwidth efficiency race, its long-term suc-

cess is far from certain, according to Breznick. In addition to questions about technological complexity, the cost associated with deploying SDV on a wide scale may be higher than MSOs now anticipate, he warns: "At least one large North American cable company estimates the price tag to be as high as \$32 per home passed, which is double the early estimates for SDV deployment."

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ing SDV commercially, intend to expand to several more markets in 2008. SDV will be deployed to the majority of North American cable households by the end of 2008. Based on interviews with the leading MSOs and equipment vendors, Heavy Reading expects SDV deployments to cover as much as 60 percent of the entire North American cable footprint by January 2009. This total could then rise to 75 percent or more by January 2010. Even though early trial deployments of SDV confirm bandwidth-saving potential of 50 or even 60 percent, Heavy Reading notes that SDV may well prove to be just a temporary solution to cable's bandwidth issue. While SDV will buy the industry time by freeing up some digital spectrum for other, more profitable uses, the technology won't actually create any new bandwidth for

Fiber-to-the-Home Making Japan an Internet Powerhouse

The Chosun Ilbo (<http://english.chosun.com>), a leading South Korean newspaper, laments that Japan's Internet market is now surging ahead after "long standing in the shadow" of Korea and China. The reason: "Japan has 10 times as many subscribers to the super-fast Fiber To The Home (FTTH) Internet service as Korea, and the number of Japanese households using the Internet exceeds 26 million."

Many of the world's leading Internet companies – Yahoo, Baidu, eBay, Google, Microsoft and Amazon – either have started operations in Japan or are preparing to do so. Korean Internet companies, too, are banking on the Japanese market and one of them, Nexon, is planning to be listed on the Japanese stock exchange rather than the Korean exchange. **BBP**