VoIPeering

INTERNET TELEPHONY

Can a Torrent Fit Through a Straw?

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As we all know by now, VoIP can be delivered in two main flavors, over private IP networks and/or over the public Internet. It took a while for most people to understand that VoIP does not mean Voice over the Public Internet, but hopefully the majority is all past that now. Contributing to the notion of VoIP traveling exclusively over the Internet is the fact that voice as an application does not consume so much capacity such that it would not be able to work properly over the Internet. Although different protocols and features still need to be mediated between gateways in order for **VoIP** (define - news - alert) to work, VoIP over the Internet has performed well — at least from a transport perspective. That may change, however.

"The broadcast television industry was born out of the military and telecoms and now it's all coming back together again," said Bryan Carpenter of Bittree, a high-performance patching systems provider at the recent National Association of Broadcasters (NAB) convention in Las Vegas. The NAB is impressive in its size, depth and wide range of sub-serving businesses in the vast video industry. Attending is a must for players in the space if for nothing else but to show your face. What's particularly fascinating is the near complete absence of traditional network operators from the fiber-based carrier world — other than Level 3 not many familiar faces to speak of in the transport business.

The big players represented in the "transport" business are the satellite network operators. They have good, solid business models that generate lots of cash and they're very proficient at what they do. With the advent of IPTV (which is not TV over the Internet — that's Web TV) the satellite providers have begun to focus on how to bring their video content out to the end users over their networks - HD video content to be exact. This is no easy task.

Many of these providers have long reviewed and analyzed the potential benefits to them of Carrier Hotel Meet Me Rooms for the purposes of building terrestrial fiber networks to support and compliment their existing infrastructure — a lengthy process for some due to their expertise in satellite and lack thereof in fiber, if not also a bit of competitive tension between the two types. The

community may also suspect that going with fiber is an all-or-nothing decision that if chosen could ultimately begin the demise of the core sat business. Most people don't like change and it's difficult to go from the top of your game to being the last one in the pool and not a very good swimmer.

Two major issues face the sat folks concerning a fiber strategy. The first is access to competitive fiber from the teleports to major, physical layer interconnection points. This is why most downlinks land on the distribution networks dishes which are directly connected to their physical plant — such as a cable company. The utility of the teleport as a transport option is seriously limited when the high costs of "no competition" transport are factored in. The other big issue is the ever-increasing size of files. Don't forget, there's a big difference between live and canned video. Moving live HD is just about the most challenging thing any network operator could ever want to do from a capacity and zerolatency perspective.

It is actually the HD capacity requirement that is an advantage and disadvantage for the sat networks. The advantage is that HD needs private network connections and satellite is just that - private, dedicated transport. HD just doesn't work over the public Internet. The Internet and all of its collective network pieces combined have a difficult enough time supporting the web and Web TV.

The real threat to voice and any other application using the public Internet is that the sat providers may not be able to build a fiber plant in time and may just end up going to their Plan B - using the Internet. If this sounds like an oxymoron, well that's because it is. Believe it or not, that's the very plan many of them have. It's unbelievable that true broadcast video could effectively run over the public Internet, but due to a long-standing ignorance of fiber, meet points and their inherent benefits, the satellite industry may end up trying to put 1000 gigs of traffic on 10 gig networks. The end result: a dramatic negative impact on existing web and Internet apps that to date have operated relatively smoothly. Web TV itself may cause this ultimate congestion and collapse, but any attempt to move the satellite video business onto the Internet would no doubt induce instant network cardiac arrest. Let's hope that it doesn't happen, but if it does, make sure you have a presence in a Meet Me Room and a private Internet standing by.

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