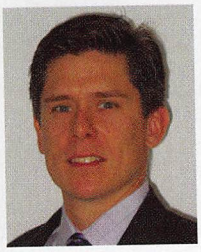

By Hunter Newby

Defining the Future

It has been a very interesting and productive year in the world of VoIP Peering. One of the most helpful developments came by way of definition and was contributed by the efforts of Steve Heap from Arbinet setting forth the question, "What is VoIP Peering versus Voice Peering?" This led to intelligent discussions in and around a couple of industry events where structured panels of experts debated and generally agreed on the following: VoIP Peering is where a call originates as IP, is transported as IP, and terminates as IP. Voice Peering is where a call either originates as TDM, terminates as TDM, or both, but is converted to IP in between for transport (provisioning) purposes. Since true IP-to-IP calls are, in the big picture of total calls, few in number these days, it is a popular belief that most peered calls are actually voice peered. This assumption will change over time, of course.

Within the VoIP Peering discussion there arose speculation over an intriguing limit to the depth of an IP call. The question may be better stated as, "How far down the line can an IP call be identified?" IP-to-IP is not limited to PC-to-PC over the Internet and, basically, for any enterprise network operator, that is not an architecture bound for implementation anyway. What there has been more of most recently is the use of media gateways that sit in front of the enterprise PBX. As long as the PBX can output a T1, the media gateway can convert the circuit-switched call to an IP call. The black phone on the desktop has not changed in this scenario, and neither has the investment level in those devices. This is a very important component of VoIP and one that more and more businesses are finally figuring out. The challenge, in terms of definition, is: Where does the call originate? Is it at the actual device, or does it still count if it comes off of the LAN, essentially as an IP call from an old digital phone?

For the purposes of technical definition, I'm content to say that an IP-to-IP call, whether over the Internet or a private IP network, is VoIP, since that relates mainly to the application of voice over Internet Protocol. Just because there is a T1 port switching the call out of the PBX to the media gateway does not change the fact that the call didn't touch the PSTN in the process. As far as a definition based on economics goes, I believe PSTN avoidance is the most important root element and what everyone is really striving for. If the call was originated as circuit-switched on a PSTN carrier network and converted to IP through a media gateway, then it is somewhat safe to assume that there is a rate per minute and potentially other fees associated with it. PSTN origination or termination of TDM calls may be a better extension of the definition of voice peering.

The root of the difference between VoIP and Voice is really about the money and the players. Who are the Peers? Are they carriers with similar business models looking to continue making money from minutes? Or, are they end users and businesses that control their own endpoints looking to peer all of their calls because they are the ones that are otherwise paying for them?

For most "minutes" carriers, VoIP is just a better way to trunk voice between their own nodes and those of other carriers. This is big money savings for them, but doesn't really change their business model to the buyer. On the other hand, VoIP for enterprises (and even the flat-rate VoBB offerings for end users) is seen as a way around the higher costs. Internally, routing calls as VoIP over the WAN is a primary way for businesses to begin saving. Peering that WAN with the WAN of another business for InterWAN calling is the next logical step. Now, that's VoIP Peering!

Looking back on 2006, with so many implementations and actual live traffic, it really was the breakout year of VoIP Peering. Some very big names stepped in and some very capable operators moved up the ladder in terms of customers and traffic. 2007 is already set to do more of the same as it builds on this momentum. Let's see what happens. IT

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