

Voice Report

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SIP Trunking and the Death of the Voice Silo

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Pundits have been forecasting the final and complete merger of voice and data communication for decades. But as long as there was a TDM world with PBXs or Centrex to manage and local minutes to buy, the ILECs had a franchise, with voice and data managed separately in many enterprises. Now, the rapid deployment of SIP trunking shows every sign of upending what is left of the ILEC wireline business. And that will finally close the merger of voice and data management.

To begin at the beginning, SIP trunking isn't really trunking, and there is no such thing as a SIP trunk in the physical sense. SIP – Session Initiation Protocol – is an IETF-defined protocol for establishing, modifying and terminating telephone calls (called sessions) over an IP-based network. It's rapidly becoming the dominant standard for VoIP.

In contrast to traditional telephony, where physical circuits (often in the form of individual copper pairs or T-1s dedicated to voice traffic) connect a customer to its service provider, SIP trunking achieves PSTN connectivity logically over a customer's dedicated ISP or MPLS access connections.

So how does a protocol threaten an industry and a profession?

Start with the ILECs. Their residential market started to erode years ago, hit successively by the death of second/fax lines as broadband internet connections emerged, competition from cable company triple plays, and the increasing abandonment of wireline by Generation Y, which sees no reason to have anything other than a cell phone.

Until recently, the business market was much more stable. The incumbents, after all, have had a lock on local PSTN access (including 1MB's, Centrex lines, and PBX trunks), local calls.

But in a SIP trunking world, local traffic from an enterprise's individual locations is aggregated and merged with all other PSTN-bound voice connectivity, usually at one or two data centers, and carried in and out of the enterprise over big pipes. In the process users shed cost, which is what makes SIP so attractive. Adding capacity for additional simultaneous voice calls to a single broadband pipe (or a pair of redundant pipes) is a lot cheaper than buying a slew of PBX trunks or a couple of thousand Centrex lines. And intra-company/on-net minutes can be very cheap or even free in a SIP trunked world.

IP telephony has other economic advantages after the initial investment. MACDs are often user-controlled, so they don't cost an arm and a leg. Features and functionality (particularly those associated with desktop integration) are superior to TDM and evolving rapidly.

All of this is a problem for the ILECs because they have been making beaucoup bucks on usage-priced local minutes, Centrex, and PBX trunks for generations.

It also creates an opportunity for second tier carriers – tw telecom, Level 3, PaeTec, XO. Those providers already have a solid enterprise presence (and over \$1 billion in annual sales), especially in the IP WAN world that includes SIP trunking, and which the ILECs do *not* dominate. Even if we forget Qwest (an ILEC at heart) and Sprint (\$5 billion in wireline business but thinks it's just a wireless company) there is a lot more potential competition for the ILECs.

Just watch the two major ILECs react to this. Verizon isn't evangelizing SIP trunking, but it hit the ground running, is better at articulating its benefits, and has pretty much embraced it. Their strategy appears to recognize and seek to leverage the principle that 'if you own the IP connection, you own the relationship.' Verizon's SIP offer is straightforward in terms of structure, capability and pricing. AT&T has been a lot more Bell-headed. It's being dragged reluctantly into the SIP world, and a number of its early offerings have been kludgy and poorly supported.

Note that (no matter what the ILECs say) special access remains an overpriced bottleneck service. But special access pricing – which produces returns of 100% annually in many cases for the telcos, is under assault at the FCC. Moreover, even in the special access world increases in special access capacity have modest marginal cost. A DS-3 costs 5-8 times what a T-1 costs, but offers 28 times the capacity, and the economics of Ethernet access are even better. Since SIP trunking needs are incremental to existing data lines, this makes the cost of adding SIP calling capability low.

SIP Trunking and the Future of Voice Management

As long as TDM reigned in voice, voice managers were important, if only because someone had to mind the PBX's and deal with the LECs. While VoiP has been a factor in the market, before the rise of SIP trunking it was deployed largely for LD. But SIP trunking means that voice really *is* an app on the data network, using the same boxes and the same connectivity for a relatively low incremental cost.

Once it is up and running there is literally nothing for a senior voice manager to do. The voice functions that remain are managing moves/adds/changes and complaining to the data guys – who will 'own' the pipes – when QOS suffers because voice isn't getting enough bandwidth. Voice managers could start managing cell phones, except that data (in the form of apps) is taking over that domain as well.

Aside from its implications for a career in voice management, this will create a problem for enterprises. The expertise of good voice managers extends far beyond basic trunking and telco services. They know how end users react when their phone doesn't work, have a better understanding than data folks of how contact centers work, and have other experiences that would continue to provide value to their enterprises. Given who will be running things, voice specialists need to be assertive in showing their value and learning new skills.

The ILECS were the step children of the AT&T divestiture – the orphaned children that were supposed to fade and ultimately fail in the face of new technology and competition. Instead, they used their power in sheltered markets to outstrip the more glamorous IXCs (including MCI and the post-divestiture AT&T), ultimately absorbing them. Similarly, the absorption of voice by IT has been regularly predicted for at least 20 years, but it hasn't really happened yet.

Like the disappearance of typewriters and (soon) photographic film, the issue may turn out to be not the foresight of the prognosticators, but their timing. The evolution of the economic order of the industry did not

do the trick, but innovation will – in this case, the strong economic/technology case for SIP trunking as a disruptive technology that kills TDM and, with it, the need to have a separate administrative structure for voice telephony. ☎

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