

The Technology Works, But...

A Pioneer's Tale

By Barb Lancaster

Telecommunications continues to be one of the most exciting industries in the world. In living memory, we've moved from cord-boards manned by real Operators, through step-by-step mechanical switches, on to digital switching, and now to IP-based telephony. We now live in a world where grandmothers in the "old country" can visit daily with their grand children thousands of miles away, using web cams and instant messaging, all for the monthly rate of broadband access.

Thanks to IP Centrex, we can have four-digit dialing to team members anywhere in the world with zero long distance charges and we can take our extensions with us to the beach, skiing or home, without anyone realizing we're not actually in the office. With the looming convergence of wireless, cellular and wireline services, it is possible to see that IP will enable an "always on" capability that will keep us connected wherever we are.

Yet, for many people "VoIP" conjures up images of questionable quality, dropped calls, security problems, and 911 concerns. The technology clearly does work – much better than cellular networks to be sure. We all still grumble about service quality on cellular networks: we can often be heard to say things like "I'm heading into a black hole just now, if the call drops, I'll call you back in ten minutes." Or the infamous "can you hear me?" to which the answer in my experience is usually "no!" No one suggests that cellular is not "ready for prime time," so why do we hear continuing concerns about VoIP? We have reached the point where IP technology is okay, so something else must be wrong. I suggest that the continuing uncertainty about VoIP, IP telephony and IP Centrex is fueled by the problems with the service providers' business processes, procedures and policies – not the underlying technologies.

This is almost certainly due, in my opinion, to the immaturity of the business methods under which IP telephony services are offered. In my company, we are early adopters by choice, so we've seen this several times before. We've had service provided by a variety of CLECs for more than eight years. We've been IP Centrex users for more than three years. At home, I was one of first few hundred customers to sign up for Vonage. In each case, we've seen the evolution from customer service that initially was more "miss" than "hit" to a reliable, good quality service experience. Along the way, I know we've been guinea pigs for the design, and re-design, of several business processes including New Installation, Trouble Management, and Service Outage Credits.

From this vantage point, we'll take a closer look at what's really happening with IP Centrex, a technology that we believe will have the next significant impact on the incumbents and will be a platform that enables hundreds of "VNOs" (or resellers) to

offer services tailored to specific needs and interests of small and medium businesses.

The technical infrastructure

Great strides have been made in making VoIP a real carrier grade infrastructure choice. The routers and switches now work routinely as planned. Provisioning, Service Management and Billing systems are available at (almost) reasonable cost, and also work routinely as planned:

As we've reported in previous issues of Pipeline, cable providers, traditional telephony providers and pure-play IP providers all have pragmatic choices from a wide variety of network infrastructure and B/OSS vendors. Every provider can now create the physical environments necessary to offer IP-based telephony services almost everywhere across the U.S., and indeed the entire world. That's the very exciting part.

Thanks to the rock-solid infrastructure components, our small but global company enjoys four-digit dialing between team members in Canada, the U.S., Australia, the UK, and anywhere we travel that has a broadband connection. And in those few places where you can't find broadband, a cellular phone can be assigned the role of virtual IP Centrex extension. We make good use of unified messaging tools and other collaboration-enabling tools. Our IP Centrex infrastructure has allowed us to dramatically lower our communications costs and increase productivity. Like fax machines and cellular telephones, it is now hard to imagine how we lived without IP Centrex. Having taken its place as a critical business system, there is an accompanying expectation of reliability – not just of the physical services, but of the customer services too. Like what happens when you move to a new address; or when you open a new office in a new geography – one that is not served by the VoIP platform vendor that supports all of your Service Provider's other locations.

The customer experience

Trial #1 - Moving to a new location

We decided to move to bigger offices in the same building. Pretty straight forward, one would think. We gave our IP telephony provider 90-days notice. After all, it did involve moving the T-1 that we know they re-sell from one of the local incumbents. "No problem – all you have to do is unplug the phones and plug them in again down the hall," was the reply. We pointed out that the T-1 needed to be moved. "Oh, right. Sorry about that, we'll get on it." Then the fun began. Since we were moving down the hall within the same building, we would be served from the same demarcation point. So to the incumbent and to the installation contractor, it didn't look like a "move" at all. No one wanted to take on the work.

After many phone calls and emails, it was agreed that the incumbent should take the order to move the T-1 termination to our new office. Whew! We focused on all of the

other elements of moving, and then waited for the installer to show up. No one came. After many phone calls and emails, it was determined that a due date was never scheduled. Somehow it was left as a “customer to confirm.” Now an expedite fee was required to get the work done within 48 hours. Since we had already moved, that was a definite “yes!” (Thank goodness we have a backup wireless access T-1 – highly recommended.) We agreed to the expedite fee, and waited for three more days. No one turned up. This time, we were told that the installer would arrive within two more days. The circuit works now. All that remains to be resolved is that expedite fee.

Trial #2 - Establishing a new office “out of region”

One of the coolest things about IP Centrex is that it really is virtual. Breaking in a new platform provider however proved to be anything but cool, or virtual. Our service provider had many, many discussions to try and get our feature package extended to the new location. They had many more discussions about the high proportion of dropped calls, especially conference calls. This was of course further complicated by the daisy-chain communications involved. We complained to our service provider, who in turn had to complain to their platform provider. Each round took hours to complete because questions that we could have answered quickly in direct conversation had to be asked and answered through an intermediary.

This was particularly problematical when the platform vendor decided that our problems must be related to insufficient bandwidth. We had to provide results of our “ping” tests to prove that bandwidth was not the source of our performance problems. Mysteriously, we could not get tone signaling to work, so we couldn’t navigate any IVR systems or use our voicemail. That problem seems to have been solved by swapping out the handsets.

The dropped call syndrome still exists on conference calls when the mute feature in particular is used (if anyone out there has some ideas, please let me know). Billing, one of the biggest challenges for many providers, is not a problem for this provider though – we were billed promptly for services, even those that still don’t work today. We’re promised that credits will be forthcoming.

These are problems that should not have been problems. We’re not picking on our service provider just to be mean. We understand that it takes time in all new companies to evolve new processes, train staff, fix problems and generally get everyone focused on the company’s desired way of working. What we have observed, in the early days of CLECs, in consumer IP telephony companies, and now in the IP Centrex companies, is that the early intellectual effort goes into the network technology, not into making the people, processes, and systems work smoothly together. Until, that is, customers start complaining and canceling their service. This usually is the catalyst to grab management attention.

The multi-vendor nature of IP Centrex is one factor that undoubtedly complicates the

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delivery of a great customer experience. Even the incumbents rely on companies like Sylanro, BroadSoft and VocalData to provide the IP Centrex platform. As service providers seek to bundle more and more services into one package, this multi-partner relationship must take top priority to resolve. Cracks, gaps, and lack of inter-working processes must be overcome to create a seamless infrastructure that hides all of the moving pieces from the end customer.

We believe that IP Centrex services will eventually dominant the SMB market, worldwide – just as soon as the business models, processes and policies catch up with the technology.