



If IP is Next Generation You're a Generation Behind

By Tom Wiencko

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I remember as a teenager listening to my father, an electrical engineer for a major computer manufacturer, talk about how new “integrated circuits” meant that we would someday be able to put whole circuits, or even whole computers, on a single chip. One of his colleagues said of this revolution, “that’s nice, but I wouldn’t want to lose my computer in a crack in my desk.” My father told him he didn’t have to worry, because computers would be so cheap that he’d have a whole drawer full of them. Even in the days of the \$200 calculator, a cheap computer was imaginable.

An executive at Digital Equipment Corporation - which developed the mini-computer, technology disruptive to IBM - wondered in public why anyone would ever need a computer on the desktop. Compaq seized the desktop opportunity and eventually purchased DEC with spare change. This is only one example of where disruptive technologies swept away the old guard more rapidly than anyone imagined.

The first cellular phones, for example, were car mounted monsters that cost \$1000. The cellular industry projected that there could be 1,000,000 subscribers by the end of the 20th century, if all went well. In 2000, less than 20 years after the technology was first deployed, cell phones were nearly free, pocket sized and used by subscribers measured in the hundreds of millions. Given that most of the disruptive technology of the past 50 years has come in communications, it is amazing that the communications industry has a difficult time embracing and promoting new and disruptive technologies.

Disruptive Thinking

Wireline carriers still talk about selling dial tone, and wireless executives still think they are in the airtime business. For those that have not yet read the memo, here it is: data communications and applications are the future of telecom. Information dense communications for voice, text, video and applications just now being conceived are not around the corner, they are right in our faces.

Just as in the computer business 30 years ago, and the package delivery business 20 years ago, the nature of the communications business is about to change permanently. Quality of life, not technology, is driving data communications applications deep into the lifestyle of society. To the nimble and forward thinking this is good news and a vast opportunity - think Microsoft - awaits. To the hidebound, it is the beginning of the end - think Control Data Corporation.



Other industries have adapted to new business models based on new technologies and thrived. Overnight delivery, thanks to Federal Express, spawned a revolution changing shipping companies to logistics partners. A little further back in time, a cartoon artist decided he was really in the entertainment business and started an empire based on that idea. His name was Disney. A little Seattle company realized that having a coffee shop was not about having a good cup of coffee but about delivering an exceptional coffee shop experience and that people would pay premium prices for bad coffee if the experience was good.

If you are a telco executive and think that the future of your company and your industry lies in providing the best voice service available, please do the rest of us a favor and retire. 30 years ago you would have been a real asset to the industry, today you are a dinosaur. Operational excellence is a prerequisite, and the only way to deliver the right customer experience for technologies you haven't yet deployed – which is management's real challenge. Landline voice installations are shrinking as data and wireless expand rapidly. Clearly selling copper pairs and dial-tone is not the future.

Communications and Quality of Life

The magnitude of the changes already underway for users in the “real world” is staggering. Sitting in the heart of George Washington University Medical Center in Washington, D.C., one can see the now unfolding. Although this new hospital is wired for standard telephones, no one uses them. Every call witnessed in a three day period was made on a wireless phone. Students, faculty, and doctors walk the halls and down the street talking on cell phones and checking email on wireless devices.

To those waiting for patients coming out of surgery, the hospital issues pagers so people are not chained to the waiting room. This hospital even rents laptop computers for \$14.95 per day with DVD players and loaded with applications. These connect to the Internet wirelessly as the entire hospital is WiFi enabled.

After determining that computers and wireless devices would not interfere with medical equipment, the hospital community has realized that access to the Internet, and the ability to use wireless communications applications, enhances quality of life for their patients. It's not only road warriors that benefit from ubiquitous applications – it's everyone. Given a reasonable price, there is great demand for the ability to compute and communicate anytime, anywhere, for any reason. The challenge in the communications industry is to deploy and support this totally new mode of communications.

If You're Not With Us...

The industry is segmenting itself into two camps – those who support and actively promote disruptive technologies, and those who resist them. It is not completely clear that being first with new technology will make a company a winner, but resisting new technologies and forms of communication is a clear path to losing. Communications technologies beyond voice are not new anymore – they are mainstream and access to



them is not a luxury for a large number of consumers, it is a requirement. New IP applications and technologies are not fads – they are here to stay, and there are more on the way.

The most important question carrier executives can ask today is whether their companies' mission statements are aimed at the 19th or the 21st century. Is the plan simply to be a “common carrier,” or will the company meet any communications need, any time, anywhere? The difference is that between the buggy-whip maker and the jet engine supplier – each works in propulsion, but one delivers a lot more power.

About the author:

Tom Wiencko is a professional consultant who has worked in the telecom industry for over 20 years. Mr. Wiencko is an expert in telecommunications technology, systems and business processes. As President of Wiencko & Associates, he has led projects for major carriers in a variety of areas, such as the first switch based real-time billing application, and has also managed large post-merger network integrations and technical consolidations. He can be reached at: tew@wiencko.com.