ADDRESS BY JOE HOZJAN TO THE DURHAM I.T. GROUP, OCTOBER 7, 2004
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This evening my central message is that voice should now be added to a list of services offered by an IT department or data consulting firm such as yours. Voice Path Convergence Group is the only firm in Durham certified by the telecom giants Nortel and Avaya (formerly A.T.&T.). Basically, in the last few years, the core architecture of telephones has changed from circuit-switched transmission to a packet-switched technology. Telecommunications is moving from a voice-only, PBX, analogue communications system to a new digital platform based on a private network. In my industry we call this a LAN/WAN infrastructure on a VPN or virtually private network. The migration to this new paradigm means that my team of nine has to spend time in both worlds. However we are firmly committed to the future, hopefully working with each of you. Equally committed are all the data and telecom equipment suppliers who are expanding voice opportunities based on the central premise of working within a data infrastructure.

If I had an imaginary radar screen in this room programmed to pick up voice over data Internet protocol communications in Durham, it would, as a start, identify my firm with its demonstration unit in southern Whitby. A big blip in the screen would be the new Durham Region Administrative building. Local politicians recently took a lot of heat to break the budget for this building by adding a voice over system instead of moving in with their old analogue phones. The opportunities to provide more and better service to the public far exceeded the additional costs, as shown repeatedly in government environments in many countries. A huge blip on the screen would be General Motors and many of its suppliers. To take full advantage of global sourcing and just in time inventory control, General Motors allows key employees to connect, on a proprietary mobile PDA device, any important contact, anywhere in the world, and to reach them instantly, without long distance charges. Several smaller blips on the screen, in comparison, are from our first customers, who enjoy the benefits of telephony beyond free long distance. They are attracted to the fact that voice communications can now be measured in real time and therefore managed for the first time. For incoming calls, by programming or by hitting icons, one can see who is busy on their phone in the network, how long callers have been waiting, how many hung up, and how busy each employee has been. Incoming calls can be transferred on a priority or voice mail basis all over the country if necessary with the caller unaware that this is seamlessly happening. Several of our customers wish to continue to decentralize decision making by encouraging employees over many locations to hold a telephone conference to discuss on an ad hoc basis, problems or opportunities as they arise. By clicking on a screen one can invite employees to join a meeting, signaling others that a meeting is going on while they are on the phone. Data can be sent as part of the conference, all this without long distance or special conference charges. The beauty of the system is that the person a customer or manager one is trying to reach may be on the road, at home, or anywhere in the world. They are accessible now using one phone number as long as their phone is connected to the Internet.

In general terms, the benefits of Internet protocol telephones and networks can be grouped into three categories:

- Sophisticated call routing is possible, allowing for intelligent call forwarding to be programmed, to reflect a range of possibilities from time of day responses to company customer priorities. One may have a different protocol for nights and weekends, or may have a feature that allows a key customer or executive to have their call answered, instead of being transferred to voice mail. Many other possibilities exist or are being developed. We all share the desire for customers or clients to receive the best attention when they call our organization on the medium of popular choice, the telephone.

- Unified Messaging is a key feature, allowing one to send, transfer, or retrieve text or voice messages from telephones or the web. Unified messaging systems manage audio (voice messages), electronic mail (e-mail), data messages (such as faxes or files) and digital video (video mail). For example, a person can check their mailbox via the web, telephone, or a variety of communications devices. They can be alerted when they have received an urgent message, by telephone or by pager. A key feature is that a person can listen to their e-mails on the telephone by using a text-to-voice converter. After listening to the message, they have the flexibility to convert the e-mail to a fax message and send it to a nearby fax machine for more careful study.

- Multimedia Communication is now possible, with voice, data, and video converged into a single high-speed backbone. In the most classic form to date, a teacher is presenting a training session. Each student can see the teacher on his or her television, they can see the course presentation with all its support data on their computer monitor, and they can hear the teacher by audio on the computer speakers, asking questions on their Internet phone.

  Both companies and individuals value the multimedia experience. Both value the freedom of mobility; they want to be accessible, and have access to information anywhere, anytime, simply, and at a low cost. Finally both value personalization and security; they want customized, private services. Companies that are not passive, that are always engaged to strengthen communication with their customers and employees, can now provide a growing stream of multimedia applications on a single data network. This creates opportunities galore for both telephony and programming, each of us doing their own thing, but hopefully doing it together to make it work best for the firms in Durham.

Bell Canada has announced that, by 2006, all of its internal traffic will be on a national IP backbone network, with an estimated savings to Bell of a billion dollars a year. The technology will convert voice signals to data packets, send those packets through the Internet, convert these packets back into telephone-like signals, while managing the overall call. By 2006, Bell will offer 90% of its customers full access to IP services, including video conferencing. However this technology will hurt Bell as long distance revenues at Bell continue to plummet as VOIP gains in favor. Service requirements are also dropping as this technology needs reprogramming, not rewiring, to adjust telephone locations to new office configurations. This programming can be done at your firm or mine using Windows, as is the case of Nortel and Avaya.

Rogers Cable has indicated that it plans to introduce VOIP service by mid-2005. Cable companies have the customers, technology and Internet smarts to quickly leap into VOIP, as long as Bell and Telus continue to be regulated. The cable companies fear that, by bundling of services, Bell and Telus can destroy the cable competition. This week, in Ottawa, hearings are being held on this point.

As far as new companies working only in VOIP, there are already a half dozen players in this market, with the latest being the Toronto Sun, of all people, who launched Suncall in August for the Ontario market. The market leader is Vonage in the U.S.(and now in Canada) with 250,000 customers offering subscribers for $29.95 a month, unlimited calls in North America, for any length, at anytime, with no additional costs. Telus, in late 2003, announced an upgrade to its IP-based core network, not only to route calls and data faster, but also to provide a full suite of advanced communications integrating voice-mail, e-mail and data via an online Web port. The Government of Canada has announced plans to launch a satellite in October to offer in rural and northern areas, high-speed Internet access, allowing diagnostic health services among other possibilities to be provided in remote sites connected to major centers. In Canada today there are 20 million wire line users, l4 million wireless users and l5 thousand IP phones. Five years ago, wireless phones were few; five years from now, IP phones will be in the millions.

Going digital in telephones is like going digital in photography; it is better, cheaper, and offers increasing opportunities to provide additional services to customers and employees. More and more is coming from the development pipeline, with the two companies we represent in Durham, Nortel and Avaya, spending last year alone, a combined $7.5 billion dollars on R & D, most of it on this technology. These and other firms have gone to great effort to make sure those that sell and maintain these new systems are competent to do so. We at Voice Path have completed a wide range of courses, seminars, plus have met other education and investment standards. Both telecom companies operate on line universities, provide almost daily technology updates, and have available for certified firms, expert staff in both the technology and its implementation. Voice Path is the only firm Nortel and Avaya certify in Durham. With my 24 years of telecom experience, and the investments I have made in training my staff and providing inventory for key parts, I believe I am well positioned to work with you.

There are a variety of ways Voice Path can introduce telephony into Durham region. The delivery model I prefer is that of IBM. In late 2002, they launched VOIP for their firm, worldwide, converging voice and data on one platform. They are now leveraging their experience to their customers. What they have found, and what you will find, is that the benefits of adding voice to a data infrastructure are major. Referring clients to Staples to buy the new phones will not achieve them. They are obtained with experienced data consulting companies working with their customers, hardware suppliers, and now certified telephone companies, adding voice as an additional application to a data network. I can say with certainty that with the deployment of voice over data, if problems arise, it is not the technology that is at fault, but on how it was implemented. Let me briefly outline some key problem areas:

l. There are different versions of IP telephony as well as different capabilities these versions offer. Nortel and Avaya approach it from the telecom side and are the market leaders. Cisco is leading the approach from the data side.

2. Without significant upgrades, some existing data networks are simply not capable of carrying the additional traffic of voice communications and providing satisfactory quality. Voice signals get priority packet treatment and need relatively more bandwidth.

3. Most clients can use their existing circuit-switched telephones on a converged network, reducing implementation costs and creating a migration possibility to full digital telephony at a pace a company can afford or desire. Questions of trade-ins and phase-ins are important.

4. Routers and nodes that perform up to expectations with existing data systems, may, when processing high volumes of additional voice traffic, introduce so much processing delay that voice quality fails to meet the standards expected by the telecom companies and by the ears of the customers. Note that when there is a packet loss transmitting data, it is solved by a transmission control protocol which orders missing data packets to be transmitted again, something voice applications don't have the luxury of doing. For voice, echo-canceling technology has been introduced and is effective.

Telecoms work on a 99.999 percent quality standard, which means that when you pick up the phone, you always get a dial tone; when you dial a number, you always get connected; when you talk, you always hear the other party clearly; and finally, your connection if always private and secure. This is the tradition I bring to the table in dealing with data centered companies.

This is why Voice Path is in the power protection business. Dan Slade is here with me this evening to show you that the threat to your system always working can be through power interruptions, surges and distortions that can be caused by a litany of possibilities. He is qualified to provide better quality answers in advanced power protection integrated directly into a network environment. Jim Gantley can address software issues. The rest of my team can respond to hardware and financial matters.

Working together using the IBM model seems to me the best way to introduce telephony in Durham. It is no longer a separate service to data as it has been in the past. VOIP must be integrated carefully into a data network on a partnership basis with consulting firms like yours providing overall coordination. Some countries, such as South Korea, are well ahead of Canada and the U.S., and industries such as financial, government and health services are setting the standard for manufacturing among others. Trade magazines in both I.T. and various industries often feature how telephony has benefited some organization or company. Being a certified company, Voice Path can review hundreds of case studies from Nortel and Avaya, as well as have access to both industry and government relations experts on their staff. They also employ technology mavens, available to assist Voice Path with any design, implementation or operations problem.

More and more features with flow onto a single voice and data infrastructure. Many of those could be through programming initiatives your firms can design specifically for your customers, as has been the experience in many countries. That is the reason why I use the word convergence in the corporate name of Voice Path Convergence Group. It signals the convergence of voice and data as our operating mission. If the benefits of telephony are to be secured for firms in Durham, expertise on the data side from firms like yours, should work with expertise on the voice side, such as my team. If problems arise, and they will, we are down the street from all of you and your customers, ready to provide 24/7 service. If we set the standard for equipment always working and secure, of providing ever expanding opportunities for better service to customers and employees, then I believe that working together is the best avenue for us.