

PRESENTATION BY JOE HOZJAN, PRESIDENT, VOICE PATH CONVERGENCE GROUP, ROTARIAN, TO THE WHITBY SUNRISE ROTARY CLUB, IN MAY 2004.

At Rotary meetings, I am often asked what Voice Path is all about, and what does the word “convergence” mean in our corporate name. To address these issues I decided to clarify things.

QUESTION: What does your company do?

ANSWER: I sell and service most brands of telephones, primarily Nortel and Avaya (A.T.&T.). We do telephone installations for new premises and make changes to existing sites. We also provide power back up to protect telephone and computer systems against power surges or disruptions.

QUESTION: So why didn't you called your company Voice Path Telephones and Power?

ANSWER: The telephone industry is going through a major revolution in technology. Both how voice is transmitted, and how it is displayed and combined with other digital signals, is changing how organizations communicate, externally and internally. Telecommunications is moving from analog to digital. The implications are as profound as the effect of digital cameras on photographic film. Many in my industry believe that the benefits are enormous today, and when this technology is fully developed, the telephone will rival the computer in terms of benefit to a company. Today, data from your computer can be combined or converged with digitized voice. Billions of dollars have already been spent developing and implementing this technology in Canada, U.S, and Europe. I wish to be in a position to service both technologies from my company in Whitby. However I believe that more and more, I will be focused on digital technology.

QUESTION: Is that all it is?

ANSWER: Many things are in digital form: data on the computer, T.V., video, pictures, the Internet. The new switches from Nortel and Avaya allow digital to be combined with analog, plus digital from voice to be combined, or converged, with data from computers and from videos, and then transmitted over the Internet. You can transmit voice over your data lines within your office, or between offices or offsite locations. You can route calls outside your local network to other numbers anywhere in the world, without long distance charges, as the internet is used. Applications such as collaborative tools and unified messaging will let employees team more effectively or respond to calls wherever they happen to be.

QUESTION: How does this technology work on voice?

ANSWER: The technology is called Voice Over Internet Protocol (V.O.I.P.), or Internet Protocol Telephony (I.P. Telephony). From a technical point of view, the voice signal is digitized, chopped into packets and sent over the company's wiring (intranet) or to other locations (internet). The packets are reassembled at the destination. The voice signal is as clear as a conventional analog system, which rely on less efficient circuits. Internet-based calls are cheaper than circuit-switched calls for consumers and carriers such as telephone and cable companies. To show you how easy and well this works, you are welcome to come to my office for a demonstration.

QUESTION: So the big deal is cheaper long distance?

ANSWER: This feature is important because it often gets our foot in the door by providing an immediate pay back for our customer's investment. However we are speaking about a transforming technology with substantial benefits. All business services are being asked to do more with less, to increase productivity with fewer, better-informed employees, to have multiple roles, communicating, collaborating and sharing information faster, easier and securely. Further communications with the customer on the phone can be strengthened, from transferring calls with a click of your computer to locations that are shown to be free inside or outside your office, to measuring how long a customer is waiting, to providing pop ups of data on the telephone screen with current information on that customer from your computer. Through a soft phone (ear phones connected to your computer) or a hard phone (digital phone with screen) your employees can have access to both your data and other employees. Conferencing among employees in different locations is a key capability (without long distance or special charges).

Existing systems require customer service staff at each location that cannot pass on calls if one location is busy. Calls come into the organization blindly with no way to intelligently route them to assist the client. There is no documentation of calls possible to record how long customers are waiting or if they hung up, so problems cannot be identified. Voice mail systems require the customer to phone in again for each person they wish to speak with. There is a huge advantage to present a single face to the customer, with calls transferred from one site to another for faster customer service.

Hardware and software enhancements, driven by millions of dollars being spent annually, is bringing down boundaries between data and voice, between wired and wireless, between public (internet) and private (intranet), between the central site and remote site, and between the desktop and wherever you are. People value the freedom of mobility-they want to be accessible and able to access information anywhere, anytime, simply, and at low cost. They want at a minimum, voice mail, e-mail and fax in one mailbox that can be accessed at anytime, and answered in any format.

QUESTION: How reliable is this technology?

ANSWER: After thousands of installations in Canada, U.S. and Europe, on equipment that is now second and third generation, this is not an issue. However, with converging data and voice and other applications on this new digital platform, more eggs are now in one basket, so someone should know what they are doing. Certified companies should do installations, backed up by world-class manufacturers having their own technical support that can support local accredited companies such as Voice Path. To further ensure reliability, there is diagnostic software available that can alert either the customer or my office of problems. We offer maintenance agreements, stock key components, and are a short drive away. Reliability also means security as well in that the internet is used, and this too is provided for with protective software. I have invested heavily to train my personnel to obtain accreditation from both Nortel and Avaya, the only firm in Durham Region to have reached this status.

QUESTION: How does the new system handle change?

ANSWER: As someone who has been in the telecommunications business for 24 years, I have never had it so easy. Changes on a digital platform can be made using computer templates of operational systems that can be readily modified to add or subtract features or outlets. Organizational changes such as new offices, downsizing, mobile employees and fluctuating headcounts are headaches for the rigid analog architecture, but not an issue with digital software. For small businesses, obtaining as many features is key, including integrated messaging, conferencing, wireless capabilities, routing calls or sending messages or announcements over all digital phones or on separate computer screens.

QUESTION: So how much does this cost?

ANSWER: It all depends. To date the typical cost is about \$25,000 for our clients in Whitby, with a payback of less than one year. The smallest installation would involve four telephone lines, which we could connect with four analogs and up to 16 digital phones. As a start we would use as much of your existing equipment as possible, which usually means most of it. Supporting this is a current Avaya ad, which states: "Migrate to I.P. Telephony, keep 85% of your current investment." A second motivation for buying digital are those who do not want to spend money on phones that will become obsolete. Further, the faster the transition, the greater the productivity savings and the larger the payback. Finally, we can arrange to lease your purchase. Also we will take in your existing equipment that is no longer needed as a trade in towards the new equipment. If you need telephones, what type would you buy to maximize your long-term investment? If you wanted to stay world class in a key component of your business, would you not incorporate digital equipment at a pace you are comfortable with?

QUESTION: So why again do you have convergence in your corporate Name?

ANSWER: Convergence of telecom and computing together is, and will become, more and more pervasive, touching every part of the economy and society, from retailing, banking, entertainment, government services and personal communications to healthcare, education and e business. In the U.S. one in ten phones sold today is digital. With Voice Path, this will become more so in the Durham Region. This telecommunications revolution will allow stronger engagement with customers and productivity enhancements for employees. According to the Director of Technology at Nortel: “The killer application for convergence is that it fundamentally shifts the way we communicate, allowing us to build more highly efficient, competitive businesses. Our five tenets of convergence are:

- Cross-functional collaboration across Business-driven teams;
- Mobility keeping workers connected all the time;
- Customer Engagement serving customers better, before they click to the competition;
- Productivity enhancements for operations, office workers, and contact center agents;
- Flexibility to change directions to meet business needs.”

“So 2004 is the year of convergence. It signals that I.P. telephony has entered the mainstream, imposing additional requirements on the converged network and setting the stage for increased business value through application convergence. For business, it means lower total cost of ownership, improved employee productivity and stronger engagement with suppliers, partners and customers. The form convergence takes is a choice that every enterprise will make based on alignment with business goals.”

QUESTION: You sure talk a lot for a Rotarian.

ANSWER: I thought Rotarians liked addresses that were like a smart dress, short enough to be interesting, but long enough to cover the subject.

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Attachment One

SUCCESS STORIES AND APPLICATIONS

Some schools record attendance in each class by the teacher recording who is present on the screen on the telephone in class, which is then passed on to administration and combined into final reports. The phones also provide classroom schedules by student upon demand, as well as pictures of the student, for security purposes. The Toronto Catholic School Board uses a unified messaging system to respond to messages with different media. For instance, an educator could reply to e-mail with a voice message, reply to a voice message with an e-mail, or forward a fax message with an e-mail or voice annotation. Calgary school district has gone wireless to expand the learning environment, including access to lecture materials, workshops, administration and multimedia educational tools.

One Sheraton hotel for groups arranges for a group directory on selected phones, along with daily meeting agendas, including company logos. For other guests, they provide information about services and tourist sites, updated daily. One University has a digital phone in each student's residence, where an ad for a local pizza firm is displayed. Soft keys allow the student to search for other restaurants and services, obtain a menu, or information on other services or university information. Professors and staff move from building to building and take their IP phones with them, connect to the network and instantly start working at the new location with no change in extension number.

With our leading Canadian air carrier under court protection, it is useful to identify some of the competitive pressures it faces from voice over technology. Jet Blue, a U.S. discount air carrier, has 600 agents working at home fielding customer enquiries. They book over 10,000 reservations a month over (soft) phones using the computer tied from their homes to the airline office, reducing significantly the cost of booking a flight.

The library in Calgary (Red Deer) decided that with key personnel moving from branch to branch (or at home) each day that with digital phones they would be directly connected to anyone who calls in their number. Voice Path connects with executives in its power affiliate, Encompass Power Solutions, from Vancouver to the Maritimes, without long distance charges or being aware of their travel status.

The House of Blues Concerts Canada, a partnership with Molson Canada, promotes over 1,000 shows annually across Canada. By replacing 85 analog trunks in their Toronto office, long distance charges fell from \$2,000 per month to an Internet-based \$200.00 per month, not counting other benefits through improved communications.

Jenny Craig use I.P. phones that automatically answers calls and collect information such as membership number. When the agent answers, the customer's data pops up on his or her screen, along with call scripting, making it possible to better serve the client. Also on their system is analog equipment such as credit card and fax machines.

Mount Sinai Hospital is both expanding and committed to get rid of paper in communications. It utilizes voice over that supports tablets, laptops and hand held devices. It currently changes about 600 ports per year, efficiently, as changes occur through expansion or redeployment. Many other hospitals use telephony to obtain paper free, real time, secure information on patients.

Falcon Bridge in Timmins, Ontario will soon become the deepest mine in North America. It uses I.P. Telephony but with Internet phones (avoiding cabling) and now, in addition voice and data communication, it has added video to allow those on the surface to see what is happening below ground.

Bell Canada announced a \$200 million investment in Nortel I.P. technology in September 2003. Most cable companies in Canada have announced, or are expected to get into the phone business using their infrastructure, with it standard across the United States. Packet based telephony is cheaper than circuit based telecommunications.

In many airplanes each day, executives are responding to their voice mail or e-mail messages using their laptop computer. Before boarding a plane, the traveling employee can download all incoming e-mails, voice mails and faxes to a laptop. He or she can read their e-mails or faxes, listen to their voice mails, and dictate responses using a microphone headset. Upon arriving at a hotel, the employee can connect to the Internet and easily transmit voice and text messages at once, saving time.

Many organizations are using IP video technology and e-learning applications to conduct meetings via videoconferencing, offer training courses to employees around the globe, and create multimedia content for viewing anytime. IP video aids productivity by eliminating or reducing travel time. By making new-product training available to all employees at the same time, IP video helps organizations speed time to market new products.

Many other examples are available and are sorted by area or industry of interest. To locate them, please log on to www.nortel.com or www.avaya.com.