



VoIP: New Life for Healthcare Communications

- Teresa Aysan – Enhanced VPN Offering Manager, AT&T Global Services, Canada

Alexander Graham Bell's success in inventing the telephone came as a direct result of his attempts to improve the telegraph. His understanding of the nature of sound and music, allowed him to overcome the limitations of the telegraph and conceive the possibility of transmitting multiple messages over the same wire at the same time.

In the same way that Graham Bell built on what had been an established means of communications for 30 years; networking companies have revolutionized the way we communicate through an emerging range of IP-enabled services.

Healthcare professionals are tapping into these emerging technologies in an effort to maintain high-quality patient care with less money. Constrained by government cutbacks, members of the healthcare community across Canada are adopting Voice-over Internet Protocol (VoIP), a technology that enables telephone conversations to be routed over the Internet or private network.

In conventional calls, the conversation is converted into electronic signals that follow an elaborate network of switches along a dedicated circuit. With VoIP telephony, sounds are converted into packets of data that travel through the Internet or private networks, just like an e-mail; the packets are then reassembled as sound at the other end of the call. In an IP-enabled environment, voice is no longer a separate network, but is now one of many communications applications, all simultaneously available on the same network.

New Possibilities for Healthcare

For healthcare professionals responsible for hospital or clinic budgets, VoIP telephony combines voice (telephone) and data (broadband) lines of communication into a single unified line, eliminating the need for medical practices to maintain separate networks - saving money and bandwidth.

For example, healthcare organizations have a specific need for sharing data in ever-increasing quantities among internal and offsite locations and there is a tremendous need for them to consolidate communication systems. The promise of VoIP is that medical professionals will be able to use the same telephone number via the Internet, no matter where they are. Additionally, VoIP will provide the ability to access all e-mail, voice-mail and fax messages from a single mailbox.

While the reduction of long-distance fees is a key benefit, VoIP services will also provide the healthcare community with efficiency-enhancing features not available with conventional phone systems. For instance, users will be able to dictate when they want to receive calls and view logs of incoming and outgoing calls - a feature that allows doctors and administrators to track time spent with patients and fellow healthcare professionals with greater accuracy.

The Road to VoIP

In past years, the biggest drawback of VoIP has been reliability and quality, but recent improvements have put IP voice quality on par with traditional circuit-switched voice networks. Providers now offer service level guarantees on voice quality and exceptional (99.9%) reliability.

With the right service solution, the migration road to VoIP does not need to be a rocky one. Healthcare organizations can realize great savings and efficiencies, while assuming more direct control over their network, providing richer communications features and functionality than they ever thought possible.

The adoption of VoIP technology and applications represents the most significant, technology shift in telecommunications in decades, offering tremendous value by leveraging the efficiencies and advanced communications capabilities of IP-enabled services. Before adopting VoIP for a healthcare organization however, it is important to consider the following:

- ❑ Focus on the value VoIP delivers to your organization. It needs to do more than just save you money. Look for ways VoIP can strengthen your ability to collaborate, drive new efficiencies and leverage the value of a converged infrastructure.
- ❑ Develop a comprehensive plan for measuring the return on your VoIP investment. The business value of VoIP can be measured in multiple areas, including operational savings, capital expenditure savings and productivity improvements.
- ❑ Recognize that the evolution to VoIP will require long-term funding and top-level support. If these two items are absent, your energy and effort will be focused on securing budget dollars rather than executing on the plan.
- ❑ Base the evolution to VoIP on your terms — not your technology partner's. Look for providers with a broad continuum of offerings and deep experience in all phases of designing, deploying, managing and evolving VoIP solutions.
- ❑ Make sure your VoIP initiative is designed on a standards-based, MPLS-enabled architecture. Do not paint yourself into a corner with proprietary solutions. Remember to stay flexible.

The Value of VoIP

Despite the obvious benefits, VoIP will not replace traditional phone systems overnight - the features are revolutionary, but adoption and investment will be evolutionary. Nonetheless, the inherent advantages and flexibility of VoIP is setting the fundamental path and pace for the future of telephony. For healthcare organizations, VoIP is an IT solution that not only provides a cost-effective alternative to traditional circuit-switch telephone systems, it also delivers a range of productivity-enhancing features that can improve how healthcare professionals communicate.

