TECHNOLOGY

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Each year J.J. Barnicke Limited offers insight into the potential effects that key technology changes will have on business in the future. People's dependency on wired and wireless networks is a key component that impacts global business everywhere. The rate of this basic technology adoption is different from country to country. The underlying reasons for the development of improved networks differ, but the pursuit of seamless internetworking is a reality everywhere. Society is becoming global, and networking technologies are providing the foundation that makes this increasingly possible.

Canada is gaining ground, as it becomes a leader and innovator in some key technology segments that are likely to have a profound international impact. A unique example of this phenomenon is currently taking place below the radar screen. The province of Ontario is the first official jurisdiction in North America (but not the first in the world) to formally introduce the concept of smart energy meters. For a smart meter system to work, a fundamental and consistent wireless IT infrastructure must exist. By 2007, nearly one million residents in Ontario will have fully functioning smart meters that will provide them with a true account of their energy utilization on a daily or as needed basis. For this phenomenon to occur, the wireless IT infrastructure must not only be in place, but the wide-scale availability of it has to be apparent in a geographically dispersed area at a very economical price. This is the reality presently available.

The example of energy costs being tracked in real time, across a completely wireless meshed network, with all security being resolved before a consumer ever receives an energy bill, seems almost normal. The truth is that only now are the infrastructure essentials in place to provide this sort of service.

International telecommunications companies want individuals and businesses to think in new untethered terms. They want consumers to think of services in an "internet-everywhere" context. The reality of full communications ubiquity, at appropriate wireless speeds, making it practical to think of working anywhere at anytime is here. In November of 2005, two of Canada's three major telecommunications carriers announced the release of wireless data services in all key metropolitan markets in the country that would rival conventional wired digital subscriber line (DSL) service. The release of third-generation (3G) evolution optimized (EV-DO) equipment is the first critical step in the actual realization of "internet-everywhere". With real 2005 download rates of up to 2.4 Mbps, and the promise of new enhanced services in early 2006 for wide-scale high-speed downlink packet access (HSDPA) networks, with speeds across wireless broadband carriers of up to 14.4 Mbps, this fundamental technology shift cannot be ignored.

Wireless Payment Services (WPS) are a prime example of the extended benefits consumers will have in the future as a result of this precedent setting technological advancement. The adoption of wireless broadband services in Canada is the single largest technology phenomenon to be observed for the remainder of this decade, and its continued impact on workplace fundamentals will result in further dramatic changes, led by the "untethered worker". Wireless networking ubiquity, and the ability to work and communicate completely wirelessly, will have significant implications for the real estate industry at large. The concept of the completely mobile worker, and the notion of businesses being far less reliant on physical office space, may have come in advance of technological availability – but the phenomenon of "internet everywhere" is truly a current reality.

Wireless networks are moving from a secondary mode of connectivity to a primary and increasingly preferred mode. The implications of this on real estate and the way that worker space, inventory management, logistics, and distribution are dealt with will all change. The rise in acceptance of radio frequency identification (RFID) systems, and now the dramatic increase in available wireless networks, means that business process shifts are imminent. It is realistic to believe that the home, the cottage, the car, or the office will all have full wireless broadband access to any and all enterprise data needed to carry out day-to-day business. Beaming your Blackberry to the nearest vending machine and enjoying an ice cold drink without using cash, debit, or credit cards is just a jog-dial away!

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