

The changing mobile landscape

New and faster networks will change how we use data



Dragan Nerandzic,
CTO of Ericsson Canada Inc.

After years of talking about the use of wireless data for low-speed applications such as e-mail and text messaging, the mobility industry is finally evolving into a phase of fully powerful, wireless networks that support innovative new devices and applications. And Ericsson, the world's largest telecommunications infrastructure provider for mobile networks, is leading the way, having invested more than \$2 billion in R&D over the past 10 years in Canada alone.

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High Speed Packet Access (HSPA) is the undisputed leader in mobile-broadband services and the best way to create a global mass market for mobile broadband, explains Dragan Nerandzic, Chief Technology Officer of Ericsson Canada. Most impressive is the rapid growth of data performance and speed that HSPA networks support today. "In 2005, when the first HSPA networks were launched, they had a peak data rate of 3.6 Mbps. Today, we have commercially deployed networks of 21 Mbps." And it doesn't stop there. Ericsson has already demonstrated a solution (to be released within the year) with peak data rates of 42 Mbps.

Long Term Evolution (LTE), the next step for faster speeds, is an easy evolutionary path from HSPA. "LTE technologies will provide rates of up to 150 Mbps and are already being deployed by large operators such as Verizon in the United States and TeliaSonera in Europe," says Nerandzic.

To further strengthen its position in the broadband market, Ericsson is working to bring HSPA to notebook computers, fixed wireless terminals and other devices where 3G wireless can replace DSL.

"Today we're producing embedded modules for laptops and other devices, so when you power up you're already

on the network—no need to attach to a modem or look for Wi-Fi," Nerandzic says. With this technology it becomes possible to communicate wirelessly between a variety of devices and machines.

speed data, voice and fax can now be accessed by any small business, home or cottage where HSPA mobile network infrastructure is available. This small, portable device allows users to connect a landline phone, a fax machine, high-



"This will have the potential to revolutionize the way business is done. Consider, for example, that when the "check engine" light comes on in your car, you are able to connect your car's computer with the service centre wirelessly to determine why the light has gone on. Knowing that the belt needs replacing, you are then able to wirelessly locate the service station nearest to you that has the part in stock, and make an appointment to bring your car in. Only when it's time for your appointment will you actually bring your car to the station—saving a great deal of time and effort."

"In order to remain competitive, however, businesses will have to embrace these technologies, which will require some preparation in advance," says Nerandzic.

In the case of notebook computers, constant connectivity can deliver increased security. "Eventually these embedded modules could be placed within all valuables to prevent loss or theft," says Nerandzic.

With the launch of Ericsson's Fixed Wireless Terminal (FWT), high-

speed Internet access and wireless LAN simultaneously. "We have seen bus companies installing these devices to make high-speed wireless connectivity available to all passengers."

"By focusing on delivering connectivity, convenience and cost effectiveness, we are helping to bring broadband to life anywhere, on any device with any service," says Nerandzic.

