



Wireless and Canada: The Future Is Here

Canada is at the forefront of innovative wireless technologies and applications — our talent pool in the sector has resulted in major international players establishing operations in wireless industry clusters across the country.

Canada is home to a quarter of North America's fastest-growing wireless companies.

— **Deloitte Technology Fast 50**

Canada's core strengths in wireless technologies and services are complemented by the presence of R&D units set up by giants such as **Nokia**, **Ericsson** and **Alcatel-Lucent**. These companies join Canada's homegrown technology stars, including **Research In Motion (RIM)**, **Nortel Networks**, **Redline Communications**, **Wavesat**, **VoiceAge** and **Sierra Wireless** — all global leaders in their market segments.

Canada is the best place in the G7 to do business, and the \$32-billion wireless sector offers many investment and partnership opportunities.

Canadian companies are among world leaders in:

- mobile devices
- WiMAX and wireless mesh networks
- ultra-wideband and radio frequency identification
- satellite communications and software-defined radio

"Canada offers a positive business environment for high-tech companies, with exceptional research and education institutions and a very attractive quality of life."

— Mike Lazaridis, President and Co-Chief Executive Officer **Research In Motion (RIM)**

Mobile Devices

- **Consilient Technologies** is a leading developer of wireless push email for mobile devices and phones. Consilient's software uses new, open standards and extends email, contacts, calendar and other applications to mobile devices and phones.
- **Research In Motion (RIM)** is the pre-eminent designer, manufacturer and marketer of innovative wireless products for the worldwide mobile communications market. Products include the BlackBerry® wireless platform, software development tools and applications for CDMA, GSM and 3G networks.
- **Sierra Wireless** is a well-known leader in developing new wireless data technology, such as the AirCard® line of wireless PC Cards, embedded modules for OEM wireless applications and rugged vehicle-mounted connectivity products.
- **VoiceAge** is the forerunner in the development and dissemination of speech and audio compression technologies and solutions at the convergence of the Internet and wireless, 2.5G, 3G, Wi-Fi and WiMAX networks.

WiMAX and Wireless Mesh Networks

- **BelAir Networks** is a leading provider of secure and scalable wireless mesh network products that deliver voice and data services for operators, municipalities, enterprises and university campuses.
- **Nortel Networks** offers mobile connectivity products and services — including cellular, WiMAX, mesh and wireless local area networks — to operators, enterprises, university campuses and governments around the globe.

> REDLINE COMMUNICATIONS

is the world's first company to have a complete suite of WiMAX equipment successfully certified. The company supplies standards-based broadband wireless access equipment to operators, service providers and enterprises worldwide.

- **Wavesat**, a fabless semiconductor developer of WiMAX broadband wireless network chips and development tools, released the first certified WiMAX chip in the world.

Ultra-Wideband and Radio Frequency Identification

- **Cathexis Innovations** offers mobile, Bluetooth-enabled RFID readers and associated services from mid-market to enterprise clients in areas such as health care, asset management and event management.
- **Wireless 2000**, a world leader in medical applications of UWB technology, released to the Canadian market its first product. **PAM™3000** is a wireless, non-contact Patient Assessment Monitor for bed occupancy / fall detection and vital signs monitoring of adults.
- **Psion Teklogix** is a major provider of customized RFID, mobile computing and wireless data-collection products in over 80 countries.
- **Vecima Networks** is a leading last-mile solution provider for broadband wired and wireless networks, enabling multi-play services for the converging telecommunications market. The company targets digital simulcast, switched digital video, IP video, video on demand, data-over-cable, advanced analog and broadband wireless applications.

Satellite Communications and Software-Defined Radio

- **Advantech AMT** is a world-leading designer and manufacturer of microwave communication products for satellite ground stations, wireless base stations, and wireless backhaul and access.
- **Ultra Electronics Tactical Communication Systems** provides advanced radio products that serve as the backbone of modern tactical line-of-sight radio networks. These radio networks provide secure, battlefield trunk telephone and high-capacity data telecommunication services to link battlefield theatre commanders and their combat forces.
- **Spectrum Signal Processing, a subsidiary of Vecima Networks**, is a leading provider of software-reconfigurable and software-defined radio platforms for military communications, electronic warfare, signals intelligence, radar and sonar, wireless infrastructure, and industrial signal-processing applications.

Cutting-Edge Canadian Research

Wireless technology activity in Canada has been driven by the establishment of flagship multinational R&D centres, among them **Ericsson's Canadian Centre of Excellence** in Montréal (the largest outside Sweden) and **Nokia's Product Creation Centre** in Vancouver. These centres are engaged in leading-edge research, and they benefit from Canada's significant tax credits and other government incentives at both the federal and provincial/territorial levels.

Canadian universities are key drivers of primary and applied research in Canada. They perform more than one third of all research in Canada. Universities have completed more than \$5.2 billion in private sector-commissioned R&D over the past 10 years and attract the highest share of private sector research of any G7 country.

Communications Research Centre Canada (www.crc.ca) is the Government of Canada's primary research laboratory for advanced communications technologies. It conducts R&D and testing of new wireless concepts, prototypes and products, and it collaborates with partners around the world in mobile systems. Current R&D areas include cognitive radio, software-defined radio and Multiple-Input Multiple-Output (MIMO), among others.

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