



ICT Security and Canada: The Future Is Here

Security solutions are needed to respond to many different types of challenges — challenges that Canada’s nearly 700 information and communications technology (ICT) security companies overcome daily.

With applications ranging from biometrics and cybersecurity to wireless asset management, corporations and governments worldwide rely on Canadian security technologies. These are used to:

- protect people, sensitive data and assets;
- ensure the efficiency and success of business operations; and
- guarantee adherence to privacy legislation.

Canada offers a full range of ICT security solutions

Canadian firms are renowned for their ability to tackle tough problems with innovative, cutting-edge technology. They provide effective security solutions for:

- user and digital document authentication;
- identification and location of products;
- Internet and e-commerce security; and
- virtually any other situation requiring digital security.

Biometrics

Biometric technologies measure and analyze human body characteristics, such as fingerprints, eye retinas and irises, voice patterns and facial patterns. Canadian companies develop leading-edge biometric technologies used in corporate and public security systems, consumer electronics and point-of-sale applications.

- **Bioscrypt Inc.** develops advanced biometric technologies, software and stand-alone hardware for identity verification. Its biometric-embedded solutions protect the physical and network assets of government agencies and organizations in the financial services, health care and manufacturing sectors worldwide.
- **Diaphonics** develops complete hardware and software solutions using voice biometrics to accurately confirm callers’ identities, and to create a searchable, auditable trail of all system interactions. Its voice biometric solutions help governments, law enforcement agencies and businesses positively identify employees, agents and customers over the phone.

- **S.I.C. Biometrics** designs and manufactures fingerprint readers that can operate in extreme temperatures. These access control and surveillance security solutions are used to protect people and institutions around the world against theft, fraud and terrorism.
- **Visiphor Corporation** biometrics systems incorporate proprietary facial recognition algorithms and tools — and are installed at more than 130 sites worldwide. Countries such as Mexico and New Zealand use Visiphor’s products to authenticate documents and identify travellers.

> CANADIAN ICT SECURITY TECHNOLOGIES

- Biometrics
- Cryptography and encryption
- Cybersecurity
- IT security consulting
- Mobile authentication
- Public safety
- Surveillance/tracking technologies

Cryptography and encryption

Secure encryption protects sensitive information. This is an essential requirement for today’s e-business economy where data zips through cyberspace between the offices of multinational companies. Without this protection, an e-business economy would be inconceivable. Canadian firms develop technologies that control access to digital data and protect code from tampering.

- **Certicom** is setting standards for robust cryptographic products. The U.S. National Security Agency relies on Certicom’s cryptographic expertise to provide security solutions.

“Neopost is proud to be meeting the security requirements of the U.S. postal authorities by integrating [Certicom’s] ECC technology.”

— Thierry LeJaoadour, Research and Development Manager, Neopost Inc.

- **Entrust**, with development facilities in Canada, provides authentication, authorization and encryption services that make Internet-based operations safe for e-business worldwide.

- **Okiok** offers IT security tools aimed at the specific needs of organizations operating in sectors such as health, financial services and government. Okiok's Global Trust software is included in Siemens' HiPath Sclurity DirX identity and access management suite.
- **RightsMarket** focuses on embedded copy-protection software that allows companies to selectively grant permission to control how information is used. Customers in the oil and gas sector use RightsMarket software to protect field data that are attached to emails.
- **Whitenoise Laboratories** develops core technologies to secure communications, data, code and applications for businesses and individuals. Their encryption algorithm represents a new generation symmetric stream cipher that provides unsurpassed security for an array of business-to-business and retail applications.

Mobile Authentication

- **Diversinet's** mobile device security software allows users to protect their identity and data when communicating or making transactions on wireless networks. Diversinet collaborates with Verisign, Research In Motion, Symbian, PalmSource and Microsoft to further develop mobile authentication services utilizing the Initiative for Open Authentication (OATH) reference architecture for mobile devices.
- **MXI Security** (Memory Experts International) manufactures portable security devices that combine secure storage with digital identity, cryptography and strong authentication, designed to meet the security and privacy needs of the world's largest private and public sector organizations, such as the FBI and U.S. Secret Service.

Cybersecurity and IT security consulting services

Spam, cyberfraud and viruses degrade network performance, erode consumer confidence and impede online business. Canada has more than 200 innovative companies currently designing advanced cybersecurity solutions to answer new cybersecurity threats before they emerge.

- **Above Security** provides managed security services and consulting to protect vital information from security breaches, leaks, corruptions and system failures.
- **Graycon Group** offers security services focused on network infrastructure-related security such as risk management and planning, implementation and monitoring.
- **The Herjavec Group** creates Internet security integration solutions for business and government.
- **Quiettouch** integrates custom security solutions into its network designs, offering clients managed network virus protection, backup strategies, and disaster recovery and firewall implementation.
- **Q1 Labs**, with research and development facilities in Canada, provides award-winning network intrusion detection and management software that meets the needs of business and government.

Public safety, surveillance and tracking technologies

In today's global economy, it is essential to ensure public safety while maintaining the efficient flow of trade and managing the risk of theft. Canada is an innovation leader in this field, with companies unsurpassed in monitoring systems, vehicle- and cargo-tracking, RFID (radio frequency identification) and remote sensing.

- **Absolute Software** develops software that runs silently in the background on a computer, regularly communicating its location to a monitoring centre. If the computer is stolen, the information is used to locate the device and recover the computer.
- **Cansec Systems** specializes in the design and monitoring of leading-edge access control and site monitoring systems. Major Canadian banks, government agencies and industry use Cansec products.

> FORENSIC TECHNOLOGY

pioneered automated ballistics identification and continues to be a leader in technologies that promote a safer society, partnering with hundreds of public safety agencies in more than 37 countries and territories. In the United States, Forensic's IBIS® system is available to 235 state and local law enforcement agencies.

- **Deuteron Acquisition** specializes in advanced RFID solutions that allow customers to identify and locate products and resources wirelessly, focusing on municipal and industrial applications.
- **March Networks** supplies a highly scalable digital system for homeland security and vehicle and fleet protection, using conventional and wireless networks in both fixed and mobile applications.
- **Positron Public Safety Systems'** suite of applications spans the entire workflow of public safety — from 911 emergency-response and command and control, to digital justice and corrections. Positron's global footprint extends from the United States and Canada to Europe, Africa, Latin America, Australia, Asia and the South Pacific.
- **Seimac** provides technology to track shipping containers, trucks, vessel moorings and buoys — even wildlife — anywhere in the world. Seimac customers range from the Royal Danish Air Force to biologists tracking ocean mammal migration patterns.
- **Senstar-Stellar** provides outdoor perimeter security intrusion detection systems, video motion detection systems and display and control systems. Senstar-Stellar systems are used internationally — protecting borders, airports, royal palaces, presidential residences, correctional facilities, nuclear power stations and other sensitive sites.
- In 2006, **Xpert Solutions Technologiques'** INNAV maritime traffic monitoring system was selected as the national system for maritime domain awareness challenges in Canada's waterways.

Security product certification

Canada is home to three of the world's best laboratories authorized to evaluate and certify security products. Their certifications are accepted in more than 14 countries as a hallmark of security quality and assurance that products perform as claimed.

- **CGI Group's IT Security Test and Evaluation Facility** (www.cgi.com)
- **DOMUS IT Security Laboratory** (www.domusitsl.com)
- **EWA-Canada's IT Security Evaluation and Testing Lab** (www.ewa-canada.com)

Come to Canada — discover the ICT security advantage!

Canadian ICT security firms have world-class capabilities for developing an exceptionally broad range of advanced security solutions — in biometrics, encryption, public safety solutions, surveillance and tracking technologies.

Canadian firms offer expert consulting services in risk assessment, wireless security, systems design, management, auditing, security training and support.

Whatever your ICT security requirements, Canada has what you need.

For more information, visit our website:

www.strategis.gc.ca/ICT

