

e-BUSINESS

IN ATLANTIC CANADA

Atlantic Canada is ideal for e-Business – with existing e-Business clusters, a large pool of high-tech graduates, leading-edge research facilities, the most competitive business costs among the G-7 countries, an advanced telecommunications infrastructure, and many other advantages. Atlantic Canada is quite simply one of the best locations for the development, testing and delivery of e-Business applications.

Costs

Atlantic Canada has one of the most competitive environments for companies developing software applications and content for e-Business solutions. Those are the findings of the 2002 KPMG Competitive Alternatives Study, an analysis of the costs of doing business in more than 100 locations across North America, Europe and Japan.

COMPARATIVE BUSINESS COSTS			
E-BUSINESS (US Average = 100)			
	1	2	3
SAN JOSE, CA	114.8	128.3	126.0
BOSTON, MA	107.3	115.0	114.8
SEATTLE, WA	103.9	107.2	109.6
HOUSTON, GA	105.0	108.8	107.1
HARTFORD, CT	103.0	105.5	106.8
MINNEAPOLIS, MN	102.1	102.9	104.6
SAN DIEGO, CA	102.2	101.7	104.9
PORTLAND, OR	100.3	99.9	101.7
PHOENIX, AZ	100.1	99.4	100.8
RALEIGH, NC	98.8	98.0	98.2
ATLANTA, GA	99.4	99.2	99.1
TORONTO, ONT	80.2	80.5	86.4
ATLANTIC CANADA			
MONCTON, NB	77.9	76.7	75.1
SYDNEY, NS	77.8	76.8	75.0
SAINT JOHN, NB	77.7	76.5	74.9
HALIFAX, NS	77.5	76.5	74.5
FREDERICTON, NB	77.5	76.3	74.5
CHARLOTTETOWN, PE	77.3	75.0	73.1
ST. JOHN'S, NL	76.3	75.6	74.5
TRURO, NS	74.6	73.1	69.2

1 = SOFTWARE - ADVANCED SOFTWARE
 2 = SOFTWARE - CONTENT DEVELOPMENT
 3 = SUPPORT - SHARED SERVICES

SOURCE: KPMG 2002

Atlantic Canada has one of the most competitive environments for companies developing software applications and content for e-Business solutions.

Research and Development

e-Business is driven by research and innovation. Atlantic Canada is home to groundbreaking e-Business and Information Communication Technologies research and development (R&D) in e-Business and has the infrastructure in place to facilitate technology transfer.

The National Research Council is Canada's premier research organization, spearheading innovation in a broad range of fields. Its national e-Business research facility is headquartered in Fredericton, New Brunswick, with specialized research facilities in Saint John and Moncton, New Brunswick, and Sydney, Nova Scotia. Current research includes e-Procurement configuration systems.

The Halifax-based Telecom Applications Research Alliance (TARA) is a unique facility that combines cutting-edge telecommunications R&D equipment with seed investment funding and business mentoring resources. TARA is home to Canada's only Cisco Certified Internetworking Expert Certification Lab, as well as a Master of Engineering in Internetworking program offered by Dalhousie University.

E-BUSINESS-RELATED EDUCATION AND TRAINING

University of New Brunswick (Fredericton, NB)

Bachelor of Science in Software Engineering
Certificate in Computer-Telephony Integration
Bachelor of Computer Science
Concurrent Bachelor of Computer Science
and Geomatics Engineering

Acadia University (Wolfville, NS)

Bachelor of Science – e-Commerce
Master of Computer Science – e-Commerce

Memorial University of Newfoundland

(St. John's, NL)

Bachelor of Commerce with concentration in IT

Université de Moncton (Moncton, NB)

Multimedia MBA

University of New Brunswick

(Saint John, NB)

Bachelor of Business Administration
with a major in e-Commerce

Bachelor of Applied Management

Certificate in e-Commerce

Electronic Commerce MBA

St. Mary's University (Halifax, NS)

Bachelor of Commerce

with Information Systems major

MBA with a concentration in IT

Mount Allison University (Sackville, NB)

Bachelor of Commerce with a major in IT

Dalhousie University (Halifax, NS)

Master of Electronic Commerce

Executive Master of Electronic Commerce

MBA in Information Technology

Master of Engineering in Internetworking

Bachelor of Computer Science

St. Francis Xavier University

(Antigonish, NS)

Bachelor of Information Systems

with e-Commerce electives

Bachelor of Business Administration

with e-Commerce courses

Bachelor of Information Systems

with e-Commerce electives

University of Prince Edward Island

(Charlottetown, PE)

Bachelor of Business Administration

with a minor in IT

Canada's largest information technology (IT) services firm, CGI Group Inc., built its worldwide "g-Commerce lab" in Fredericton, New Brunswick to respond to the growing use of IT in government service delivery.

Atlantic Canada's universities are also playing vital roles in e-Business R&D. The Computer Science Department of the University of New Brunswick (UNB) is a Canadian leader in advanced software and IT research. Its current areas of focus include automated reasoning, artificial intelligence, and computer information security. UNB's Saint John campus has established an Electronic Commerce Centre in conjunction with private sector partners. The university is also home to the Research Chair in the Management of Technological Change, as well as the Information Technology Centre.

Dalhousie University conducts e-Business-related research through its Global Information Networking Institute. Current research areas include machine learning and Web information filtering.

Other university-based, e-Business-related research activities include Acadia University's Intelligent Information Technology Research Centre and Memorial University of Newfoundland's Centre for Digital Hardware Applications Research.

Education and Training

More than 27,000 people graduate from Atlantic Canadian colleges and universities every year – one of the highest per capita rates in all of North America. Of those graduates, an estimated 6,000 obtain IT-related degrees or diplomas. In addition, the region's post-secondary institutions offer an array of innovative e-Business diploma programs. The result is an excellent recruitment pool for companies locating in Atlantic Canada.

Leadership

e-Learning - Atlantic Canada is home to one of the largest clusters of e-Learning firms in North America. There are over 40 companies across the region employing some 3,000 people in areas ranging from custom content development to integrated e-Learning solutions. Their clients include top North American and global organizations. SkillSoft, LearnStream, Zedcomm, ContentAlive, Innovatia and Theorix are just a few of the firms that have made Atlantic Canada their home.

e-Government - Atlantic Canada has served as a North American leader and inspiration for e-Government. Atlantic Canada On-line is transforming the way provincial governments do business by offering clients electronic access to government databases from home or office. The California-based Center for Digital Government called Atlantic Canada Online a "brilliant model" for online government access.

e-Health - Atlantic Canada is a trendsetter in implementing information technology solutions in the health care sector. In the past five years, the region has implemented more than 40 important e-Health-related initiatives, ranging from computer-based telemedicine networks to home-based technology for use in palliative care.

e-Business in Action

Companies from all over North America have expanded into Atlantic Canada in recent years to take advantage of the excellent environment for Web-based operations.

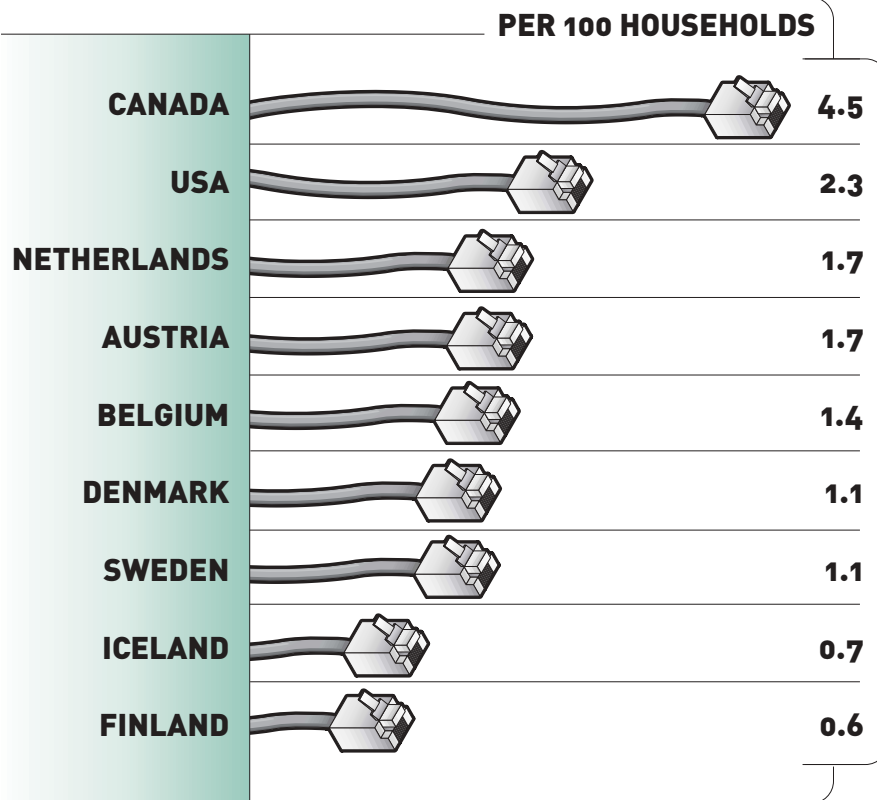
New York City-based Register.com Inc., a leading provider of global domain name registration and Internet services, recently established a help desk in Yarmouth, Nova Scotia. The company currently employs more than 120 people and expects employment to grow to 300 in the near future.

EDS Canada, one of the largest IT services companies in the world, established a customer interaction help desk in Sydney, Nova Scotia. The facility employs 800 people and serves clients across North America. EDS Canada also recently created a Centre of Excellence in Charlottetown, Prince Edward Island to develop and support service delivery network solutions for clients throughout the world.

SkillsSoft, the world's largest e-Learning company, set up an e-Learning service centre in Fredericton, New Brunswick, to provide on-line mentoring for clients. In 2001 the company bought IC Global, a New Brunswick-based e-Learning software developer, to supplement its suite of products and services.

Xerox Canada operates a technology-rich teleweb sales centre in Halifax, Nova Scotia, to service US-based corporate clients. Employment at the centre is expected to increase to more than 600 people over the next five years. Xerox also has more than 500 employees at a major customer service facility in Saint John, New Brunswick.

BROADBAND PENETRATION



SOURCE: THE DEVELOPMENT OF BROADBAND ACCESS IN OECD COUNTRIES. OECD 2001

E-BUSINESS-RELATED EDUCATION AND TRAINING (continued)

Information Technology Institute

(Halifax, NS)
Applied IT Diploma,
MBA in IT,
Master of IT Education

Nova Scotia Community College

(Lunenburg, NS)
Bachelor of Arts in e-Commerce Marketing

Nova Scotia Community College

(Yarmouth, NS)
IT Diploma

Oulton's Technology Institute

(Moncton, NB)
e-Business Developer

Systems 'N' Solutions (St. John's, NL)

e-Commerce/Wireless Developer Program

College of the North Atlantic (St. John's, NL)

e-Commerce post-Diploma/Degree

Computer Training Institute

(Saint John, NB)
e-Commerce Diploma

Holland College (PE)

e-Commerce Certificate

New Brunswick Community College

(Fredericton & Saint John, NB)
Business Technology Diploma

e-Business Diploma

University College of Cape Breton

(Sydney, NS)
Bachelor of IT

CompuCollege (Pan-Atlantic)

IT Diploma



Atlantic Canada does more than attract leading organizations – it creates its own. Among a full field are:

- Content Alive, a full-service e-Learning development company, based in New Brunswick, that has seen its revenues increase by 260% in the past three years and was ranked third in Atlantic Progress magazine's list of fastest growing companies in Atlantic Canada. The company employs more than 100 people in its e-Learning studio.
- ZeddComm, the St. John's, Newfoundland and Labrador-based company that offers end-to-end e-Learning solutions to clients such as Cisco Systems, Health Canada, and Schering-Plough.
- xwave, one of the top three Canadian-owned IT services companies today, employs more than 2,800 employees in offices across North America and now in Europe. xwave believes the roots of its success lie in the fact that it works with clients in key industries it knows well – telecommunications, energy and selected areas of the public sector.

Environment

Atlantic Canada is far ahead of most other regions in terms of telecommunications infrastructure. A 2001 study¹ conducted by the OECD found that of the organization's 30 member countries, Canada had the second-highest rates of broadband penetration. Atlantic Canada is a leader within Canada.

The region also has a generous number of IT business parks, with buildings and infrastructure specifically designed to meet the unique needs of the IT and e-Business sectors. The Knowledge Park in Fredericton, New Brunswick, a multi-building, high-tech campus, is home to a number of leading IT firms, including CGI and SkillSoft. The Atlantic Technology Centre in Charlottetown, Prince Edward Island, is the largest IT incubation facility in eastern Canada, and offers its tenants the very latest in IT infrastructure.

Characteristics

Atlantic Canada is home to more than 2,800 companies in the information and communications technology industry, employing an estimated 40,000 people in a full range of sectors:

- software design, development, production, and distribution
- IT and e-Business consulting
- system integration
- telecommunications
- multimedia and new media
- network management and consulting
- e-Business solutions for manufacturing and distribution
- IT and e-business education

e-Business in Atlantic Canada is on fast-forward thanks to all the right elements: cost competitiveness, advanced infrastructure, strong R&D networks, and a highly skilled workforce. With leadership in e-Learning, e-Government and e-Health, the region continues to gain momentum. It's demonstrated in new investment, new business, and ever-expanding markets. To find out how your e-Business can profit in Atlantic Canada, contact:

Atlantic Canada Opportunities Agency

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¹ The Development of Broadband Access in OECD Countries, Working Party on Telecommunication and Information Services Policies, OECD (2001)