

Telecommunications and Information Technologies

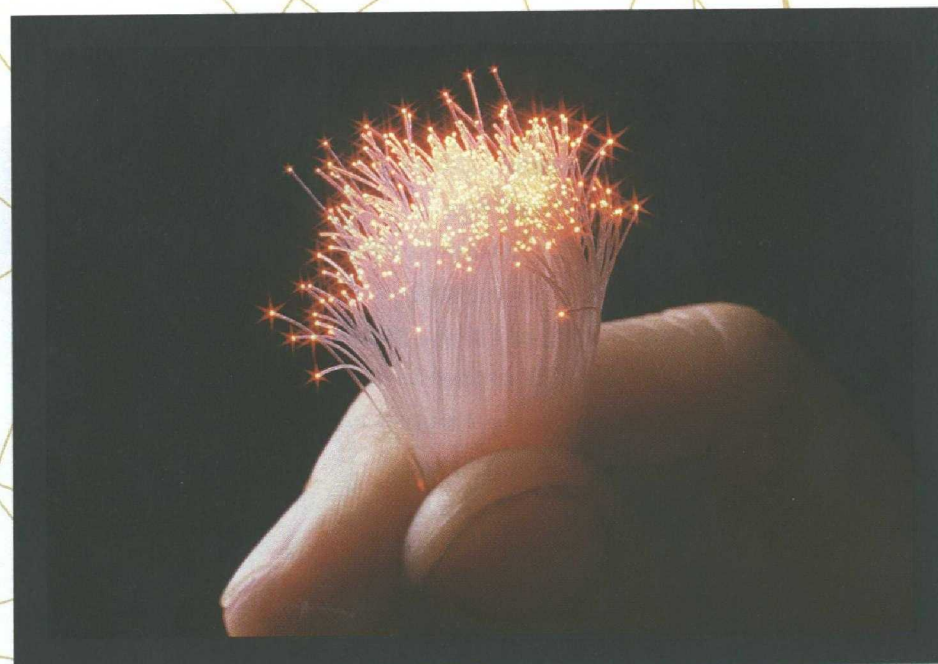


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Staying on top of information and telecommunications technologies is essential to building an infrastructure that makes countries competitive in international markets. Working from a sophisticated base in Canada, Canadian companies have helped upgrade information and telecommunications systems around the world.

Canadians have been setting the pace in some of these industries for more than a century. The very first telephone call was placed in Canada by Alexander Graham Bell, the inventor of the telephone. Canadian information and telecommunications companies have built on these kinds of historical achievements. They have remained innovative and cost-efficient. They continue to win large numbers of foreign contracts, many of them in highly competitive U.S. markets.

One need only look at a map to see that improvements in Canada's communications systems have had to overcome challenging geography and climatic extremes. They have done that successfully. Canada's recent telecommunications breakthroughs have coincided with advances in information technologies that include software products, computer services and new media, geomatics products, computers, peripherals and instrumentation, and electronic components.

**CANADA'S
TELECOMMUNICATIONS
SYSTEMS PROVIDE A
WIDER ARRAY OF
SERVICES TO A
BROADER BAND OF
CUSTOMERS THAN IS
AVAILABLE IN ANY
OTHER COUNTRY IN
THE WORLD.
VIRTUALLY EVERY
HOUSEHOLD IN
CANADA IS
CONNECTED.**

TELECOMMUNICATIONS

In 1994, the U.S. Mesa Research Group concluded that Canada ranked first in both the comprehensiveness and quality of its telecommunications systems when compared to five other countries: the United States, Japan, the United Kingdom, Germany and Singapore.

Canadians are very demanding about the scope and quality of their telecommunications capacity – 99 per cent of households have telephones (Canadians are the heaviest users of telephones in the world) and 92 per cent have access to multiple television channels through cable networks. Companies in Canada are active around the world in countries such as the United States, Britain, Brazil, China, Thailand and the Philippines, installing the same kinds of efficient communications networks that Canadians have come to depend upon.

Recent Canadian telecommunications "firsts" have included:

- THE WORLD'S FIRST DOMESTIC DIGITAL MICROWAVE NETWORK (1971),
- THE WORLD'S FIRST NATIONAL GEOSTATIONARY SATELLITE (1972),
- THE WORLD'S FIRST PACKET-SWITCHED NETWORK (1972),
- THE WORLD'S LARGEST CONTIGUOUS CELLULAR NETWORK (1990),
- THE WORLD'S LARGEST POINT-TO-POINT AUTOMATED TELLER MACHINE (ATM) NETWORK (1993),
- THE WORLD'S MOST COMPREHENSIVE FIBRE-OPTIC NETWORK (1994),
- THE WORLD'S MOST POWERFUL GEOSTATIONARY MOBILE COMMUNICATIONS SATELLITE (1996).

More than 90 per cent of Canada's telephone network has already been digitized. Coast-to-coast fibre-optic networks provide a full range of commercial services as well as the necessary bandwidth required to develop and test tomorrow's high-speed multimedia services.

