

## **COMMUNICATIONS INFRASTRUCTURE: A CANADIAN COMPETITIVE EDGE**

Canada's communications infrastructure has evolved in response to the challenge of building a national community over vast distances.

The nation boasts many pioneering firsts, from the invention of the telephone in Ontario in 1874, through the 1972 deployment of the first national geostationary satellite telecommunications network, to completion of the world's longest fibre optic communications network in the 1980s.

Today, companies based in Canada have the competitive advantage of one of the world's most advanced systems of public and private networks.

The telecommunications infrastructure comprises 252 million km of public switched telephone and data networks, all of which are interconnected

with satellite, cellular telephone and mobile radio networks. Despite the size of the country, telephone service in Canada is virtually universal, with 16 million access lines bringing service to 99 per cent of households.

Businesses and homes in Canada are served by three national telecommunications networks. Two major carriers, The Stentor Alliance of 10 telephone companies, and Unitel Communications Inc. provide telephone services, while Teleglobe Canada supplies the linkage for overseas telecommunications service. In addition to the big three, 50 smaller independent companies serve various regions of Canada. Telesat Canada operates Canada's satellite communications networks. As of 1994, 40 "reseller" companies were providing competitive network services on lines leased from the carriers.

Canada has one of the most highly developed broadcasting systems in the world. The listening and viewing audience is served by over 1,000 AM and FM radio stations and 719 television stations. Cable television, pioneered in Canada, has now become the primary carrier of television signals to the home. More than nine of ten Canadians are connected to the cable system, which now includes pay TV and pay-per-view services.

Mobile telephone services are provided on the world's longest contiguous cellular networks by two national carriers, Rogers Cantel Inc. and Mobility Canada. Voice and data services to cars, trucks, ships and aircraft will be expanded with the launch by a private consortium of the MSAT satellite in 1994.

### **PRIVATE NETWORKS**

The business infrastructure includes a highly developed system of private voice and data networks operated by large companies and, in some cases, by third party suppliers. They include Local Area Networks (LANs) that link personal computers in a

#### **BROADCASTING AND CABLE TELEVISION FACILITIES**

- 613 AM stations
- 389 FM stations
- 719 TV stations
- 95% of Canadians have access to cable TV
- 250,000 satellite dishes for direct-to-home reception