

Chapter 16

Communications

16.1 Telecommunications

The size, topography and climate of Canada have significantly influenced the development of telecommunications in this country. Vast networks of telephone, telegraph, radio and television facilities are necessary to provide efficient communications between individual Canadians and the rest of the world. As a result Canada possesses a somewhat unique system with telephone and telegraph companies and domestic satellites carrying messages to all parts of the country by microwave, tropospheric scatterwave systems, satellite, land lines and high-frequency radio bands.

The Canadian Telecommunications Carriers Association (CTCA), established in February 1972, provides the framework for co-operation on an industry-wide basis for the major telecommunications carriers in Canada. The Association consists of 23 telecommunications carriers organizations, each represented on the board of directors by a senior officer. It brings together in one organization the Trans-Canada Telephone System and its eight members, The Canadian Independent Telephone Association, nine other telephone companies, and Canadian National and Canadian Pacific Telecommunications, the Canadian Overseas Telecommunication Corporation, and Telesat Canada. CTCA has its headquarters in Ottawa.

The importance of telecommunications in Canada was recognized in the creation of the federal Department of Communications in 1969. The Department carried out a comprehensive inquiry into all aspects of Canada's information system. This "Telecommission" study, completed in the spring of 1971, provided guidelines for formulating national communications policies and programs. Supplementing the study is a report by the Canadian Computer/Communications Task Force charged with making recommendations to assist in formulating legislation concerning the Canadian computer/communications industry. The combination of computer technology and the technology of telecommunications was the latest stage in facilitating a national linking of computers. Since then the concept of multi-user sharing of a central data processing complex has rapidly gained acceptance. The Department has sponsored projects to help high schools and universities use the latest communications and computer systems for exploring computer-assisted learning. One such project is CANUNET, a study being conducted by Canadian universities to see if it is possible to design a computer/communications network to serve the collective needs of universities.

16.1.1 Telecommunications media

16.1.1.1 Voice communications

Telephone service. There are nearly 12 million telephones in service in Canada, more than one for every two Canadians, of which about 11 million are provided by the eight member companies of the Trans-Canada Telephone System, a consortium of Canada's major telephone companies formed in 1931 to pool resources in meeting national telecommunications needs. The companies are Alberta Government Telephones, British Columbia Telephone Company, Bell Canada, Manitoba Telephone System, Maritime Telegraph and Telephone Company Ltd., The New Brunswick Telephone Company, Limited, Newfoundland Telephone Company Limited, and Saskatchewan Telecommunications. The member companies are owned and regulated in a variety of ways. The three companies serving the Prairie Provinces are provincially owned Crown corporations; the other five companies are investor-owned. Bell Canada and BC Tel operate under federal charter; the others are regulated by provincial agencies.

Almost a million telephones are provided by Edmonton telephones, Island Telephone Co. Ltd., Northern Telephone Ltd., Okanagan Telephone Co., Ontario Northland Communications, Québec-Téléphone, Télébec Ltée, Téléphone du Nord de Québec Inc., Thunder Bay Telephone Department and Canadian National Telecommunications. In addition about 1,000 smaller telephone companies provide telephone services.

Canadian National Telecommunications, geographically the largest single system in Canada, provides telephone service for residents in the Yukon Territory and Northwest Ter-