other subscriber on the network. A multiple address service was offered to Telex users in 1971 through CNT's message-switching computer complex located in Toronto.

A medium-speed Telex service is offered exclusively by CN-CP Telecommunications, operating in the speed range of 100 to 250 words per minute. The subscriber may connect his own computer or data sending-receiving equipment or lease terminal equipment from CN-CP. This service provides a direct dial interconnection with subscribers anywhere in Canada to achieve a medium-speed range transfer of data from one location to another. The toll rates to subscribers are the same as for the standard-speed Telex service, that is, based on time used and distance. A variety of speeds and codes can be handled, making this service useful for data transmission.

Telepost. CN-CP and the Canada Post Office introduced a new communications service called Telepost on October 1, 1972 which fills a gap between telegrams and first class mail. It is available to CN-CP Telex and Telenet subscribers, and enables them to send messages electronically by Telex to a post office centre for delivery to the addressee.

Telex terminals have been installed in post offices across the country, where messages are placed in specially designed tri-colour envelopes and delivered through the normal mail stream. Next-day delivery is provided to virtually any postal address in Canada. There is no restriction on the length of the message. The charge is 75 cents for the service, in addition to regular Telex charges. A special delivery Telepost can be sent for an additional 40 cents.

Teletypewriter exchange service (TWX) is provided in Canada by TCTS companies. The service provides for switched, dial-up communication on a two-point and conference basis between teletypewriters at a speed of 100 words per minute or ten characters per second. TWX basic service is a standard teletypewriter for use with relatively simple message transaction application. TWX premium service has all the basic features and in addition is designed for more complex order-writing systems requiring a heavy-usage terminal capable of handling forms, form tabulation and multi-copies. There are 4,100 TWX subscribers in Canada and 35,000 in the United States. TWX subscribers can connect with overseas teletypewriter customers through International Telex.

Private wire teletype systems. Although private wire services are still a significant part of business for the telecommunications industry, the prime communications users are supplanting their private wire systems with computer-controlled store-and-forward systems.

16.1.1.3 Data communications

Quick availability of information of all kinds is vital to the management of modern industry. The member companies of the Trans-Canada Telephone System offer a wide selection of low-speed data services and a variety of medium- and high-speed computer communications facilities. In recent years, the TCTS has increased the message capacity of its coast-to-coast microwave network to meet the growing needs of data communications users, set up computer-controlled communications systems, and started work on a coast-to-coast digital data network.

Digital communications. This form of medium- and high-speed transmission is important to computer communications users because it permits the transmission of data in digital form, the language of computers. Without digital transmission facilities, data moving from one computer to another must be converted to analogue form before transmission, and reconverted to digital form before reception by the recipient computer. Another benefit of digital transmission is its low error rate.

In 1971 TCTS began development of a coast-to-coast digital data network with a trial network linking Ottawa, Toronto and Calgary which worked successfully with four trial customers through most of 1972. Work also continued on development of a high-capacity, buried coaxial cable that will carry digital and voice traffic along the heavy-usage corridor from Quebec City to southwestern Ontario.

In 1972 TCTS formed the Computer Communications Group, a pooling of the expertise of all eight member companies, permitting computer communications users to call on the resources of the entire system to meet their needs.

Data-phone service transmits data from punched cards, tape or magnetic tape over public telephone circuits or leased private lines. Data-phones take signals in digital form and convert them to analogue signals (variable tones) for transmission. At the receiving end, another