B.2.3.1 Low speed dialed and leased lines

Relatively low speed (1200 to 9600 bps) communication is easily accomplished by connection to the dial network, at costs identical to those of regular voice calls. Similarly, dedicated lines may be installed between offices to provide a permanent communication facility. Due to the relatively low speeds, these services may be better suited to linking remote offices to regional centres or for emergency back up of other facilities than for use in linking major centres. (Per the example in section 4.2, a 20KByte image that would take 16 to 20 seconds to transmit at 9600 bps would take 130 to 160 seconds at 1200bps.) Also, depending on the volume of use, connection to a packet network may be considered as an alternative to these facilities.

B.2.3.2 Medium and high speed services

56Kbps and 64Kbps digital switched or dedicated services are now available linking most major centres in Canada. As ISDN networks are installed internationally, 64Kbps services will become also available to many foreign posts. Though costing more in absolute dollars than low speed analog lines, the cost per bps of these services can be significantly lower. (Our example 20KByte image used above would require 2.5 to 3 seconds to transmit at these speeds.) It should be noted that typical PC communications interfaces (e.g. "comm ports") may not be able to operate at these speeds - connections to this type of service would probably be from a LAN communication server or "super-mini" computer.

Higher speed services such as "T-1" are also available within major cities and between major centres. These services operate at 1.5 Mega bps within North America and 2 Mega bps in other countries. Services such as this are best suited to linking LANs with high volumes of traffic or strict response time requirements (Our 20KByte example image would require approximately .1 seconds of transmission time at 1.5Mbps).

Typically these services would be used between major centres where traffic volume could justify the costs or within a single city to link LANs in several offices.