

## Video Communications

In the past three decades, video distribution has been one of the major growth areas in Canada's communications sector. The roots of its development go back to the early 1950s, before Canada had its own television production capability. At that time, the only Canadians with access to television lived in the southern part of the country, where it was possible to receive off-air pickup from the United States. Because signals were weak, a costly antenna was required and members of a community would often pool their resources and share a single installation. The relatively simple technology of sharing subsequently grew into the development of cable television technology.

With the advent of television production capability in Canada, domestic transmission facilities were required. Video transmission was first introduced in the 1950s, and the first transcontinental circuit was in operation by the end of the decade. Since then, there has been a continuous demand to increase the number of channels and expand the service area of transmission and delivery systems. Terrestrial transmission has increased significantly; satellite technology has evolved; cable systems have reached maturity; and low-power rebroadcast equipment is readily available. Now that virtually every location in the country can receive television, the emphasis is on increasing the number of available channels and improving the technology.

Initially Canada's largest terrestrial transmission facility consisted of a coast-to-coast, 6 000-km backbone route, which carried programming in Canada's two official languages, French and English. In addition, there were many shorter microwave systems operating in a north-south orientation. These carried both Canadian and U.S. programming to areas remote from Canada's southern television infrastructure. In addition, one Canadian province, Saskatchewan, pioneered the distribution of television on fibre optics. In this case, installation of an extensive buried fibre-optic system between all population centres eliminated the need for microwave facilities.



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