

Universal Communications Through Open Systems Interconnection

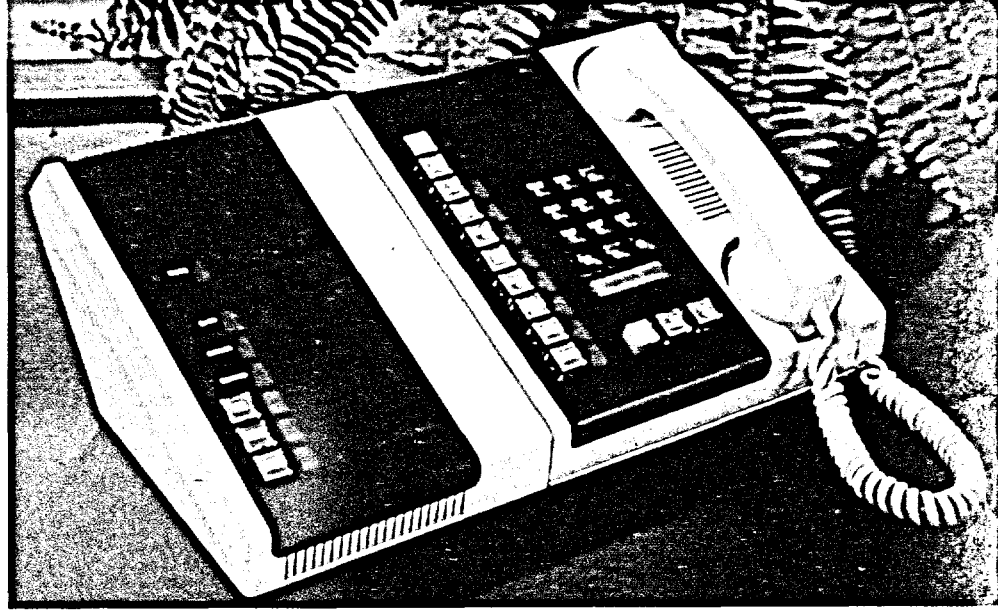
The rapid pace of technological development and demand for services has resulted in the application of many new kinds of communications equipment and systems that are incompatible with one another. This has been a barrier to the orderly growth and realization of the full potential of new information services. For example, simple transactions *via* computer between one organization and another may be impossible because of system incompatibilities.

In theory, computer communications could be as universal and unrestricted as the telephone. For this to happen, internationally-accepted technical standards for computer communication protocols and services are needed. (A protocol is a set of rules defining the grammar between communicating systems.)

The International Organization for Standardization (ISO) and the International Telegraph and Telephone Consultative Committee (CCITT) have been working towards developing such standards and, in 1980, proposed a framework for enabling data, computer and integrated office communications worldwide. The framework is called the Reference Model for Open Systems Interconnection.

In this model, seven layers of technical specifications will be defined to allow systems, possibly of different manufacturers, but conforming to the framework and standards, to communicate with one another. Standards have already been agreed upon for the lower five layers of the model and while the remaining ones are under discussion, a complete set of Open Systems Interconnection standards may be confidently expected by early 1985.

Canada, a strong proponent of Open Systems Interconnection, is involved, with other countries, in



The SL-1, a popular internal communications system, has been sold to some 40 countries.

developing the various standards needed. In October 1983, Canada hosted the ISO Technical Standards Committee on Open Systems Interconnection, which significantly advanced the work towards development of draft international standards.

Adherence to the standards will be voluntary. It is likely, however, that manufacturers will adhere to the standards to satisfy the growing demand for communications products that are compatible with others, that can be used in a wide range of applications, and that can be sold into the international marketplace which Open Systems Interconnection stimulates.