I.241.4Mixed mode

This service provides combined text and facsimile communication (mixed mode) for end-to-end transfer of documents containing mixed information of text and fixed images. The high layer attributes are based on the CCITT Recommendations for Teletex and Telefax 4.

I.241.5EVideotex

The Videotex service in the ISDN is an enhancement of the existing Videotex service with retrieval and mailbox functions for text (alpha) and graphic information.

I.241.6Telex

This service provides interactive text communication. The digital signal at the S/T reference point follows the internationally agreed Recommendations for telex above the ISDN physical layer.

Note - During an evolutionary period, not all items marked "E" will be provided in all networks.

Recommendation I.241 gives the recommended support of teleservices by ISDN. The recommended overall provision of teleservices is reproduced in Table 1/I.240.

TABLE 1/I.240

Recommended overall support of teleservices by ISDNs

| | | |
|---|---|---|
| I.241.1 | Telephony | E/A (Note) |
| I.241.2 | Teletex | A |
| I.241.3 | Telefax 4 | A |
| I.241.4 | Mixed mode | A |
| I.241.5 | Videotex | A |
| I.241.6 | Telex | FS |

Note - It is anticipated that ISDNs offer telephony as a basic telecommunication service. Some networks will offer this as a teleservice. However, due to national regulation policies, some networks will offer telephony as a bearer service rather than as a teleservice.

4.Prose definitions of teleservices

In order to give an overview of the teleservices identified, their definitions, as given in Recommendation I.241, are reproduced below.

I.241.1Telephony

The "Telephony service" provides users with the ability for real-time two-way speech conversation via the network.

I.241.2Teletex

Teletex is an international service enabling subscribers to exchange office correspondence in the form of documents containing Teletex coded information on an automatic memory-to-memory basis via the ISDN.

I.241.3Telefax 4

Telefax 4 is an international service enabling subscribers to exchange office correspondence in the form of documents containing facsimile coded information automatically via the ISDN.

I.241.3 - Telefax 4

I.241.4 - Mixed mode

I.241.5 - Videotex

I.241.6 - Telex

The prose descriptions (Step 1.1) and static descriptions (Step 1.2) of these services are given in Recommendation I.241. The common dynamic description (Step 1.3) for demand bearer services given in Recommendation I.220 is also applicable to teleservices.

Note - Prose descriptions for Mixed mode, Videotex and Telex are not yet included.

3.Recommended support of teleservices

In order to facilitate the development of compatible ISDNs and related user equipment, the tables in Recommendation I.241 outline the recommended support of teleservices defined in this Recommendation. The tables consist of two parts:

a) description of the overall support of a teleservice by its dominant attribute value, i.e., the value of the high layer attribute: type of user information. The recommended overall support of a teleservice is described as:

E an essential teleservice to be made available internationally;

A an additional teleservice which may be available in some ISDNs, and which may also be available internationally;

FS the recommended support of this teleservice is for further study,

b) within each teleservice, a description of the agreed non-dominant attributes, e.g. values of the high layer attributes: layer 4 to 7 protocol functions. If an ISDN supports the teleservice, the recommended support of the values of these secondary attribute combinations within this teleservice is described as:

E an essential combination of attribute values to be made available internationally (when an ISDN supports the particular teleservice);

A an additional combination of attribute values which may be available in some ISDNs, and which may also be available internationally (when an ISDN supports the particular teleservice);

FS the recommended support of this combination of attributes is for further study.

# Recommendation I.240 - Definition of teleservices

## 1.General

Recommendation I.210 describes the principles for defining telecommunication services supported by an ISDN, including the concept of bearer services, bearer capabilities and teleservices. It also provides the tools for the definition and description of such services.

The purpose of this Recommendation is to define a recommended set of teleservices to be supported by an ISDN. These definitions form the basis for detailed descriptions of teleservices as given in Recommendation I.241 which are used to define the network capabilities required.

Teleservices are described by prose definitions and descriptions, by attributes and by dynamic descriptions, which altogether define the service characteristics at a given access point where the customer accesses the service. Recommendation I.140 and Recommendation I.210, Annex C describe the use of attributes for this purpose.

## 2. Definition of teleservices in ISDN

This section defines the teleservices identified so far to be supported by an ISDN. Additional teleservices are for further study.

The definition of teleservices is based upon the list of attributes given in Recommendation I.210, Annex C.

The layer 4 to 7 protocol function and type of user information attribute values (i.e., attribute numbers 10 to 14), the low layer attributes values (i.e., the information transfer attributes, the access attributes, and the general attributes are the recommended functions for teleservices. The type of user information attribute is considered the only dominant attribute. The value of this attribute is the same as the service name used in the E- and F-Series Recommendations for the particular service being provided in ISDN.

The information transfer and access attribute values for teleservices given in the service descriptions are the proposed values when using the circuit mode and packet mode bearer capabilities of the ISDN. For the case of telephony, only the circuit mode is to be used. Implementations using alternative low layer attribute values are permitted but are for further study. From a service interworking perspective it is desirable that the possible combinations of values of the low layer attributes of teleservices be the same as the bearer capabilities of the bearer services defined in the I.230-Series of Recommendations.

The following teleservices have been identified so far to be supported by an ISDN:

I.241.1 - Telephony

I.241.2 - Teletex