

## Recommendation I.250 - Definition of supplementary services

### 1. General

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

The purpose of this Recommendation is to define a recommended set of supplementary services to be used in association with basic bearer services and with basic teleservices. These definitions form the basis for detailed descriptions as given in Recommendations I.251-I.257, which are used to define the network capabilities required.

Supplementary services are described by prose definitions and descriptions and by dynamic descriptions following the description method given in Recommendation I.130. The application for supplementary services of the attribute technique described in Recommendation I.140 is for further study.

Note - (See text below).

### 2. List of supplementary services

The following set of supplementary services is currently identified and more may be identified in the future:

#### Recommendation I.251 - Number Identification Supplementary Services

I.251.1 - Direct Dialling In (DDI)

I.251.2 - Multiple Subscriber Number (MSN)

I.251.3 - Calling Line Identification Presentation (CLIP)

I.251.4 - Calling Line Identification Restriction (CLIR)

I.251.5 - Connected Line Identification Presentation (COLP)

I.251.6 - Connected Line Identification Restriction (COLR)

I.251.7 - Malicious Call Identification (MCI) (Note 1)

I.251.8 - Sub-addressing (SUB) (Note 1)

#### Recommendation I.252 - Call Offering Supplementary Services

I.252.1 - Call Transfer (CT)

I.252.2 - Call Forwarding Busy (CFB)

I.252.3 - Call Forwarding No Reply (CFNR)

I.252.4 - Call Forwarding Unconditional (CFU)

I.252.5 - Call Deflection (CD) (Note 1)

I.252.6 - Line Hunting (LH)

Recommendation I.253 - Call Completion Supplementary Services

I.253.1 - Call Waiting (CW)

I.253.2 - Call Hold (HOLD)

I.253.3 - Completion of Calls to Busy Subscribers (CCBS) (Note 1)

Note - Alignment and interworking between user facilities as defined in Recommendations X.2 and X.301 for the provision of data transmission services and the supplementary services in the I.250-Series and interworking in the I.500-Series of Recommendations require further study.

Recommendation I.254 - Multiparty Supplementary Services

I.254.1 - Conference Calling (CONF)

I.254.2 - Three Party Service (3PTY)

Recommendation I.255 - Community of Interest Supplementary Services

I.255.1 - Closed User Group (CUG)

I.255.2 - Private Numbering Plan (PNP) (Note 1)

Recommendation I.256 - Charging Supplementary Services

I.256.1 - Credit Card Calling (CRED) (Note 1)

I.256.2 - Advice of Charge (AOC)

I.256.3 - Reverse Charging (REV) (Note 1)

Recommendation I.257 - Additional Information Transfer Supplementary Service

I.257.1 - User-to-User Signalling (UUS)

Note 1 - These services being identified need to be further studied and the descriptions are not yet included.

### 3. Association of supplementary services with bearer services and teleservices

Table 1/I.250 shows the association of supplementary services to basic bearer services and basic teleservices identified so far. Their provision in a particular ISDN is a network provider's option. Other associations are for further study.

Service Recommendations of the F-Series may recommend the individual provision of supplementary services with teleservices such as e.g., the provision with the telematic services Teletex, Telefax, Mixed Mode etc.

#### 4. Definitions of supplementary services

- a) At stage 1 of the description method the services are described from the user's perspective, but do not concern details of the human interface itself. For example, in Call Waiting there is a statement that the served user "shall be informed" that a call is waiting. It does not specify whether this shall be accomplished by a bell, a light, a synthesized voice, etc.
- b) Similarly, the stage 1 service description is independent of the amount of functionality in the user's terminal other than that required to provide the human interface. For example, the Conference Calling Service description is designed to be independent of whether the conference bridge is in the terminal, in the serving exchange, or elsewhere.
- c) While the service descriptions are directly applicable to public networks, it is expected that the design of private networks will take these descriptions into account in order to ease the interworking between public and private networks.
- d) Although reference is made to human users, there is no restriction on machine or procedures being the user of these supplementary services. Examples include automatic answering terminals, voice announcement systems, etc.
- e) Combining points a) to d), there is no prohibition against "machines" (e.g., call distributors, etc.) that use the CCITT described services and then offer the same or other (e.g., customized) services to their users.
- f) Lastly, the "machine" referred to above could, in fact, be an entire private network.

X denotes applications of supplementary services identified within each supplementary service description; other associations are for further study.

Notes to Table 1/I.250

- 1) This supplementary service is not yet included in the descriptions.
- 2) Further study is required on the association of these supplementary services to these circuit mode bearer services.

4.1 Number identification supplementary services (Recommendation I.251)

I.251.1

I.251.2

I.251.3

I.251.4 (the definition of the individual supplementary services should be reproduced here)

I.251.5

I.251.6

I.251.7 Definition is not yet included; further study is needed

I.251.8 Definition is not yet included; further study is needed

4.2 Call offering supplementary services (Recommendation I.252)

I.252.1

I.252.2

I.252.3 (the definition of the individual supplementary services should be reproduced here)

I.252.4

I.252.5 Definition is not yet included; further study is needed

I.252.6

4.3 Call completion supplementary services (Recommendation I.253)

I.253.1

I.253.2 (the definitions of the individual supplementary services should be reproduced here)

I.253.3 Definition is not yet included; further study is needed

4.4 Multiparty supplementary services (Recommendation I.254)

I.254.1 (the definitions of the individual supplementary services should be reproduced here)

I.254.2

4.5 Community of interest supplementary services (Recommendation I.255)

I.255.1 (the definitions of the individual supplementary services should be reproduced here)

I.255.2 Definition is not yet included; further study is needed

4.6 Charging supplementary services (Recommendation I.256)

I.256.1 Definition is not yet included; further study is needed

I.256.2 (the definition of the individual supplementary services should be reproduced here)

I.256.3 Definition is not yet included; further study is needed

4.7

Additional information transfer supplementary service

I.257.1 (the definition of user-to-user signalling should be reproduced here)