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**INTEGRATED SERVICES DIGITAL
NETWORK (ISDN)**

SERVICE CAPABILITIES

USER-TO-USER SIGNALLING (UUS)

ITU-T Recommendation I.257.1

(Previously "CCITT Recommendation")

FOREWORD

The ITU-T (Telecommunication Standardization Sector) is a permanent organ of the International Telecommunication Union (ITU). The ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1 (Helsinki, March 1-12, 1993).

ITU-T Recommendation I.257.1 was revised by ITU-T Study Group 1 (1993-1996) and was approved under the WTSC Resolution No. 1 procedure on the 3rd of October 1995.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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Recommendation I.257.1**USER-TO-USER SIGNALLING (UUS)***(revised 1995)***1 Definition**

The **user-to-user (UUS) supplementary service** allows an ISDN user to send/receive a limited amount of information to/from another ISDN user over the signalling channel in association with a call to the other ISDN user.

NOTE – These procedures are applicable to User-to-User Information (UUI) transfer in association with a circuit-switched telecommunication service only. Procedures to permit UUI transfer in association with other types of calls (e.g. packet bearer services) need to be investigated.

2 Description**2.1 General description**

The UUS supplementary service is applicable to users who are connected to a network via a basic access or a primary rate access.

The UUS supplementary service allows the user to send/receive a limited amount of user-generated information to/from another user-network interface. This information is passed transparently (i.e. without modification of contents) through the network. Normally, the network will not interpret or act upon this information.

The user can transfer UUI in different phases of the call depending on the service(s) to which the user subscribes. These services are:

– *Service 1*

UUI can be sent and received during the origination and termination of calls.

In the case of a point-to-multipoint configuration at the called user, the following restrictions shall apply to the transfer of UUI:

- in the forward direction, UUI can be sent by the calling user only as part of the request for the origination of a call, or as part of the request to terminate the call. If the calling user terminates the call prior to the connection being established, UUI shall only be delivered to those terminals which have indicated that the user has been informed of the call;
- in the backward direction, UUI can be sent from the called user to the calling user with the indication that the called user is being informed of the call. It shall be the called user's responsibility to avoid contention. UUI can also be sent from the called user when answering the call;
- if the called user rejects the call and the network receives a single rejection from the called user, then the reason for rejection and the accompanying UUI (if any) shall be sent to the calling user;
- if the network receives multiple rejections from the called user, with the same or differing reasons for rejection, then the network shall select the first received, highest priority rejection, based on the reason(s) for rejection. The reason for rejection and the accompanying UUI (if any) of the selected rejection shall be sent to the calling user.

– *Service 2*

UUI can be sent and received after the calling user has received an indication that the called user is being informed of the call and prior to the establishment of the connection. UUI sent by the calling user prior to receiving the acceptance of the call by the called user shall, as a service provider option, be delivered to the called user after the call has been established.

Service is only applicable if a point-to-point configuration exists at the called user's side.

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– *Service 3*

UII can be sent and received only while the connection is established.

Service 1, service 2 and service 3 allow the transmission of 128 octets per message.

NOTE – During an interim period of time, some service providers may support the transfer of only 32 octets of UII on service 1.

Limitations are also placed on the number of messages per time for service 3. The flow control of each direction shall operate independently.

2.2 Specific terminology

2.2.1 user-to-user information (UUI): The information transferred by the service UUS.

2.2.2 point-to-point arrangement: A situation where multiple responses to an incoming call cannot occur.

2.2.3 point-to-multipoint arrangement: A situation where multiple responses to an incoming call can occur.

2.2.4 served user: The user to whom the UUS supplementary service is provided and who requests the activation of the UUS supplementary service .

2.2.5 remote user: The user who receives a request for activation of the UUS supplementary service.

2.2.6 explicit request: The UUS supplementary service is considered as explicitly requested when a user requests the activation of the UUS supplementary service.

2.2.7 implicit request: The UUS supplementary service is considered as implicitly requested when no explicit request for the UUS supplementary service is made and UII is sent by the user when originating a call.

2.2.8 “UUS not required” request: A request where originating a call shall continue even if the request for the UUS supplementary service cannot be accepted.

2.2.9 “UUS required” request: A request where originating a call shall be rejected if the request for the UUS supplementary service cannot be accepted.

2.2.10 basic access: See Recommendation Q.9, definition 1551.

2.2.11 called user: The user who received an incoming call (originated by the calling user).

2.2.12 calling user: The user who originates, or originated, the call.

2.2.13 integrated services digital network (ISDN): See 2.3/I.112, definition 308.

2.2.14 service 1: A form of the UUS supplementary service where UII can be sent and received during the origination and termination of calls.

2.2.15 service 2: A form of the UUS supplementary service where UII can be sent and received after the calling user has received an indication that the called user is being informed of the call and prior to the establishment of the connection.

2.2.16 service 3: A form of the UUS supplementary service where UII can be sent and received only while the connection is established.

2.2.17 supplementary service: See 2.4/I.210.

2.3 Qualification of the applicability to telecommunication services

Restrictions can only be identified for telecommunication services which are based on the X.31 packet mode bearer services and their future enhancement.

3 Procedures

3.1 Provision/withdrawal

The UUS supplementary service shall be provided to the user after prior arrangement with the service provider. No subscription is required for the remote user.

As a service provider option, one or any combination of the following can be provided:

- service 1 implicit request, or service 1 implicit request together with service 1 explicit request;
- service 2;
- service 3.

The UUS supplementary service shall be withdrawn by the service provider upon request of the subscriber or for service provider reasons.

As a service provider option, withdrawal can be done separately per service provided, or globally for all services provided to the served user.

3.2 Normal procedures

3.2.1 Activation/deactivation/registration

The UUS supplementary service is activated when:

- it is implicitly requested (for service 1); or
- it is explicitly requested (for service 1, service 2 and service 3) and accepted by the remote user.

Depending on the served user's subscription to the UUS supplementary service and the provision of the UUS supplementary service by the service provider, service 1 implicit, service 1 explicit, service 2 and service 3 can be activated individually or in combination. Service 1 implicit and service 1 explicit cannot be simultaneously active.

Once a service is activated (i.e. service 1 and/or service 2 and/or service 3) the network shall accept UUI from either user in the call, according to the service that has been activated.

The UUS supplementary service requires no registration.

3.2.1.1 Service 1

Service 1 shall be requested by the calling user when originating a call, if UUI transfer is desired in either direction.

Service 1 can be activated by means of an implicit request or an explicit request. Service 1 is implicitly requested when UUI is included when originating a call. The served user shall be given an explicit response (acceptance or rejection) to an explicit request. An explicit request can include UUI.

When service 1 is explicitly requested, the network shall inform the remote user of the request. The network shall interrogate for the availability of the UUS supplementary service of the remote user. No response from the remote user shall be taken by the network as a rejection of the request for the UUS supplementary service. The network shall explicitly indicate to the served user whether or not the requested service has been successfully activated.

When service 1 is explicitly requested, the remote user can include UUI when accepting the request for the UUS supplementary service.

When service 1 is implicitly requested, service 1 is active for the call, i.e. the remote user is not required to send a response to the implicit request. However, the remote user can include UUI in the call response (e.g. for user-to-user negotiation).

Service 1 is automatically deactivated when the call is terminated.

3.2.1.2 Service 2

Service 2 shall be requested by the calling user when originating a call, if UUI transfer is desired in either direction.

Service 2 shall be explicitly requested. The served user shall be given an explicit response (acceptance or rejection) to an explicit request.