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ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

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**TELEGRAPH SWITCHING
INTERNATIONAL TELEX SERVICE**

**INTERWORKING BETWEEN THE
INTERNATIONAL TELEX SERVICE
AND THE PUBLIC INTERPERSONAL
MESSAGING SERVICE**

ITU-T Recommendation U.204

(Previously "CCITT Recommendation")

FOREWORD

The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the International Telecommunication Union. 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, established the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

ITU-T Recommendation U.204 was revised by the ITU-T Study Group IX (1988-1993) and was approved by the WTSC (Helsinki, March 1-12, 1993).

NOTES

1 As a consequence of a reform process within the International Telecommunication Union (ITU), the CCITT ceased to exist as of 28 February 1993. In its place, the ITU Telecommunication Standardization Sector (ITU-T) was created as of 1 March 1993. Similarly, in this reform process, the CCIR and the IFRB have been replaced by the Radiocommunication Sector.

In order not to delay publication of this Recommendation, no change has been made in the text to references containing the acronyms "CCITT, CCIR or IFRB" or their associated entities such as Plenary Assembly, Secretariat, etc. Future editions of this Recommendation will contain the proper terminology related to the new ITU structure.

2 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 U.204**INTERWORKING BETWEEN THE INTERNATIONAL TELEX SERVICE
AND THE PUBLIC INTERPERSONAL MESSAGING SERVICE¹⁾***(Melbourne, 1988; revised Helsinki, 1993)*

The CCITT,

considering

- (a) that Administrations are introducing public message handling services;
- (b) that there are benefits in the provision of an interworking capability between message handling services and the telex service;
- (c) that there are already existing arrangements in place for interworking between telex and the interpersonal messaging system;
- (d) that Recommendation F.60 defines the operational provisions of the international telex service;
- (e) that the F.400-Series Recommendations define the service requirements of the message handling services;
- (f) that Recommendation F.420 defines the service requirements of the public interpersonal messaging service;
- (g) that Recommendation F.421 defines the operational procedures for interworking between the public interpersonal messaging service and the telex service;
- (h) that the U-Series of Recommendations define the technical requirements of the telex service;
- (i) that the X.400-Series Recommendations define the technical requirements of the message handling services;

unanimously declares

that, for new implementations, the technical aspects of interworking between the telex service and the public interpersonal messaging service shall be in accordance with this Recommendation.

Definitions

The following terms used in this Recommendation have the undermentioned definitions:

PTLXAU: The public telex access unit (PTLXAU) is a functional unit which implements the requirements to allow the delivery of messages from telex subscribers to users of the interpersonal messaging service (and vice versa) as specified in the relevant U-Series and X-Series of Recommendations. The method of implementation of these functions in any physical unit is a national matter.

registered IPMS user: A user of the interpersonal messaging service who has registered with the PTLXAU for the receipt of telex messages and who is assigned a telex number that is part of the telex national numbering plan for this purpose.

IPMS user answerback: In the case of one-stage selection, the answerback that is returned to the telex network on receipt of a WRU signal and which uniquely identifies the registered IPM user to the telex network.

¹⁾ Throughout this Recommendation, the term "telex" should be interpreted as referring exclusively to "the international telex service", as described in Recommendations F.59 and F.60.

PTLXAU answerback: In the case of two-stage selection, the answerback of the destination PTLXAU and which is always returned by the PTLXAU in response to a received WRU signal.

PTLXAU identification: When delivering an IP message to a telex subscriber, the sequence transmitted by the PTLXAU which indicates the country of origin of the PTLXAU and IPM service.

1 Introduction

1.1 Scope

1.1.1 This Recommendation defines the procedures to be followed for interworking between the telex service and the public interpersonal messaging service (IPMS).

1.1.2 The operational procedures of this interworking capability and the full range of facilities are described in Recommendation F.421 [1].

1.1.3 For calls originated in either service, communication will be affected using the international telex network.

1.2 Service outline

1.2.1 Communication between subscribers of the telex service and the IPM service is on a store-and-forward basis; conversational-mode interworking is thus not applicable.

1.2.2 Delivery of messages from telex subscribers to users of the IPM service as well as delivery of messages to the international telex network from IPMS users shall be provided by means of a public telex access unit (PTLXAU) which shall be considered as part of the IPM service.

1.2.3 For calls originated by either telex subscribers or IPMS users, the international connection shall be via the international telex network, as shown in Figure 1.

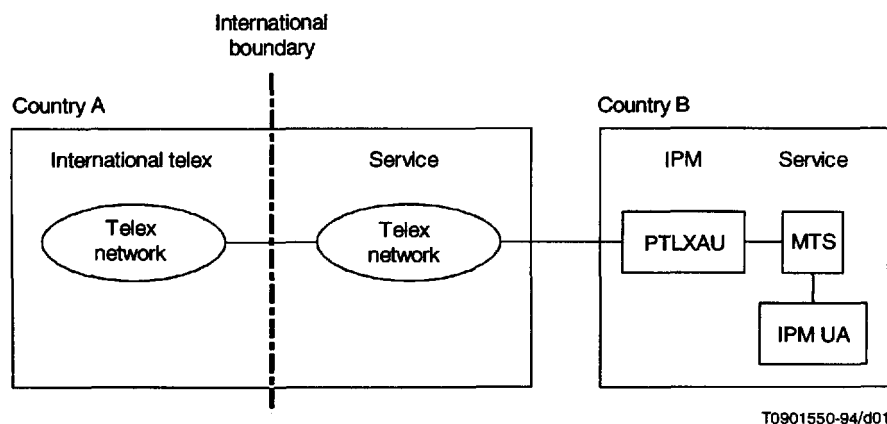


FIGURE 1/U.204

Basic model for interworking between the international telex service
and the public interpersonal messaging service

1.2.4 The procedures to be followed by an originating telex subscriber allow for either one-stage or two-stage selection.

1.2.5 The IPMS user will follow normal MHS addressing principles when sending to telex. The rules for naming and addressing in the message handling services are found in Recommendation F.401 [2].

2 Methods of interworking

considering

- a) that different addressing formats may be used within the IPM service;
- b) that these formats may consist of either numeric or mnemonic information,

then the following methods of interworking between the telex service and the IPMS may be provided:

- 1) interworking with one-stage selection,
- 2) interworking with two-stage selection.

Messages from an IPM service user are sent as normal IP messages using the appropriate elements of service in accordance with Recommendation F.420 [8].

3 Telex access to the IPM service

3.1 One-stage selection

In the one-stage selection procedures, the IPM service user is assigned a telex number that is derived from the national telex numbering plan. Figure 2 shows the recommended access procedures.

3.1.1 Call establishment

3.1.1.1 The originating telex subscriber will select the IPM service user using normal telex procedures.

3.1.1.2 The procedures for call establishment between the terminating telex network and the PTLXAU are a national matter.

3.1.1.3 The telex number received by the PTLXAU from the telex network will be verified by the IPM service as being proper to a registered IPMS user. The method of effecting this verification is a national matter. If the verification fails, the procedures to be adopted shall be in accordance with Recommendation F.421 [1].

3.1.1.4 If the submitted telex number is positively verified, then the PTLXAU shall return the call connected signal to the originating telex subscriber using normal telex signalling procedures.

3.1.1.5 The IPM service user answerback returned by the PTLXAU in response to the WRU signal from the telex network shall conform to Recommendation F.74 [3].

3.1.1.6 If the call originates from a telex automatic emitting device, the calling telex subscriber should indicate this by commencing the procedure with the non-interactive service request (CI).

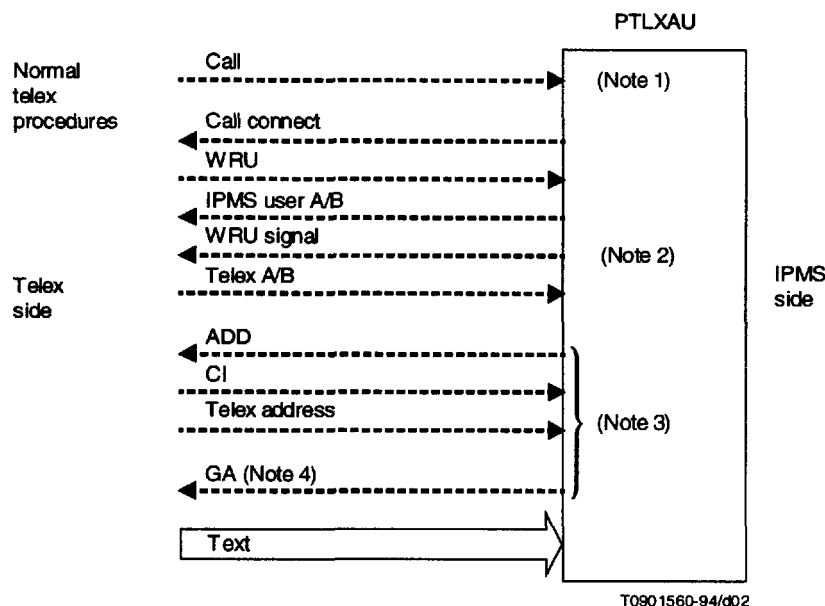
3.1.2 Determination of the calling telex address

3.1.2.1 Following the transmission of the IPMS user answerback, the PTLXAU shall monitor for the receipt of characters from the telex network and shall transmit a WRU signal only after an idle condition has existed for at least 800 ms.

3.1.2.2 The PTLXAU shall determine the calling telex address from the received telex answerback in accordance with the rules laid down in Recommendation U.74 [4].

3.1.2.3 The PTLXAU shall wait 3 seconds from the end of the calling telex answerback to enable the telex subscriber to input the calling telex address. At the end of this period and if the calling telex address cannot be determined from the received telex answerback, then the PTLXAU shall return the prompt signal.

3.1.2.4 If the calling telex address is not received within 15 seconds of the ADD prompt, then another prompt signal shall be returned. If another 15 seconds elapse without the receipt of the calling telex address, the connection shall be cleared by the PTLXAU.



NOTES

- 1 These procedures are a national matter.
- 2 In accordance with Recommendation S.23, this WRU signal may be transmitted 800 ms after the transmission of the IPM user answerback if the backward path remains idle.
- 3 The ADD prompt is only sent if the return telex address cannot be determined from the received telex answerback (see 3.1.2). The calling telex address may be preceded by a CI signal to indicate an automatic terminal. The CI may precede the calling telex address as voluntarily submitted by the caller without any PTLXAU-generated prompts, as follows:
 - a) ADD (from PTLXAU)
CI
50032266 or
 - b) CI
ADD 50032266
- 4 GA signal is sent if text input has not commenced within 3 seconds of the receipt of the calling telex address.

FIGURE 2/U.204
Call set-up in the telex-to-IPM direction
(case of one-stage selection)

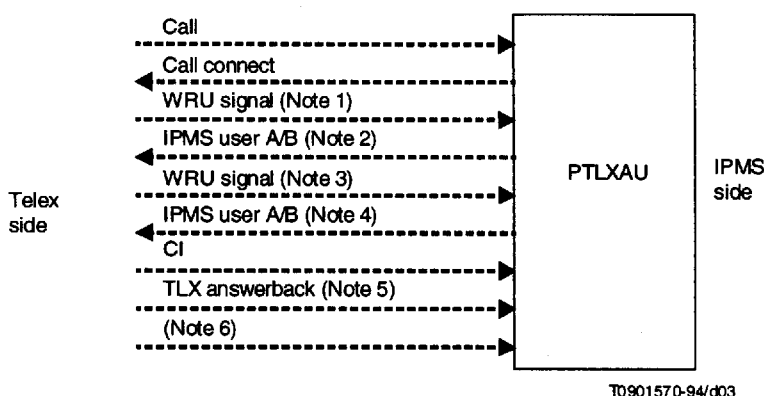
3.1.2.5 The calling telex address shall be input by the telex subscriber in the following format:

↑	F.69 code	national telex number	←	≡	←	≡
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e.g. [ADD] 50032266

The calling telex address may optionally be preceded by ADD.

3.1.2.6 The calling telex address, when received, may be preceded by the non-interactive service request CI, which may or may not be associated with carriage-return, line-feed and letter-shift characters. In this case, the call procedure originating from a telex automatic emitting device will be as shown in Figure 3.



NOTES

- 1 Network generated WRU signal.
- 2 IPMS user answerback may be preceded by date/time information and register codes, inserted by the telex network, and may be followed by a recorded message.
- 3 WRU signal generated by telex automatic emitting device.
- 4 Discrete IPMS user answerback for validation purposes.
- 5 Telex automatic emitting device shall transmit its answerback at this stage preceded by the code expression CI.
- 6 Procedure continue in accordance with Figure 2.

FIGURE 3/U.204

**One-stage access from telex to IPMS
(case of telex automatic emitting device)**

3.2 Two-stage selection

The two-stage selection, the address(es) of the IPMS user(s) is/are given prior to the transmission of the message and after a telex connection has been established between the originating telex subscriber and the gateway to the IPM service, i.e. the PTLXAU. The use of either upper- or lower-case letters by the originating telex subscriber in the input of service identifiers, address attributes, etc., has no significance.

3.2.1 The originating telex subscriber will use normal telex procedures to access the PTLXAU which will be allocated a telex number that is derived from the national telex numbering plan of the country in which the PTLXAU is located. The PTLXAM answerback shall be formatted in accordance with Recommendation F.60 optionally preceded by the code expression CI (4.3.3).

3.2.2 The procedures to be followed shall be in accordance with Recommendation U.80 [5], except where specified in this Recommendation and are shown in Figure 4.

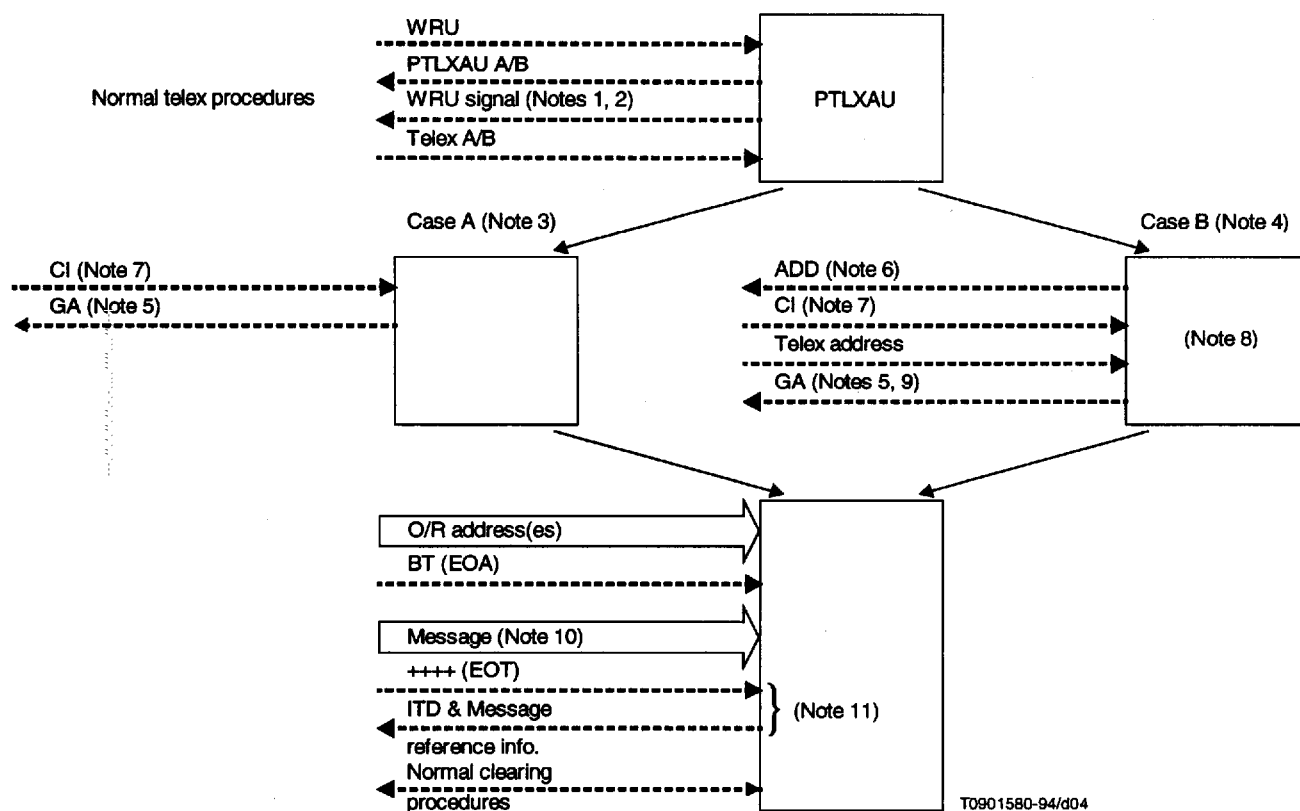


FIGURE 4/U.204

**Telex access procedures to PTLXAU using two-stage selection
(applicable to either manual terminal or TAED)**

Notes to Figure 4

1 In accordance with Recommendation S.23, this WRU signal is transmitted 800 ms after transmission of the PTLXAU answerback if the backward path remains idle.

2 One additional WRU signal shall be transmitted by the PTLXAU if:

- there was no response to the first WRU, or
- signals were received after the first WRU which could not be identified as an answerback.

This second WRU should be transmitted at least 10 seconds after the transmission of the first WRU and only after a period of 300 ms of idle condition has been detected.

3 Case A: Procedure to be followed when the calling telex address can be determined from the received telex answerback.

4 Case B: Procedure to be followed when the calling telex address cannot be determined from the received telex answerback.