



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

U.200

(03/93)

TELEGRAPH SWITCHING INTERNATIONAL TELEX SERVICE

THE INTERNATIONAL TELEX SERVICE – GENERAL TECHNICAL REQUIREMENTS FOR INTERWORKING

ITU-T Recommendation U.200

(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.200 was prepared 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 Similarly, in this reform process, the CCIR and the IFRB have been replaced by the Radiocommunication Sector.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.

© ITU 1994

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the ITU.

CONTENTS

	<i>Page</i>
Definitions	1
Abbreviations	1
1 Scope	2
2 General interworking scenario	3
3 Tasks of the IWF	4
4 Access to an IWF from the telex network	5
4.1 One-stage selection	5
4.1.1 Procedure	7
4.2 Two-stage selection	7
4.3 Notes to Table 2 and Table 3a	10
4.3.1 Note 1	10
4.3.2 Note 2	10
4.4 Use of a Status Enquiry Function	10
5 Text transfer	11
5.1 Description of text transfer modes	11
5.1.1 Real time	11
5.1.2 Store-and-forward	11
5.1.3 Store-and-retrieve	11
5.2 Text transfer in a packet switched environment	11
5.3 End of text transfer	11
6 Conformance to the international telex service	11
7 Access to telex from other networks/services	13
7.1 Call set-up	13
7.2 Text Transfer Phase	13
7.2.1 Real time	13
7.2.2 Store-and-forward	13
7.3 Handling of recall address	13
7.3.1 One-stage IWF	13
7.3.2 Two-stage IWF	14
8 Clearing	14
9 Notifications, Journals, Advise of Status	14
10 Ineffective call attempts	15
11 Reaction to abnormal conditions	15
12 Interworking by the use of a telex store-and-forward unit	15
Annex A – General scheme for access protocols	16

Recommendation U.200**THE INTERNATIONAL TELEX SERVICE – GENERAL TECHNICAL
REQUIREMENTS FOR INTERWORKING***(Helsinki, 1993)***Definitions**

non-telex terminal: Within this Recommendation the term “non-telex terminal” is used for any terminal which does not belong to the international telex service or is not connected to the international telex service directly, but can be accessed via the international telex service.

Abbreviations

ACK	Request for positive delivery notification
ADD	Please input your international telex number
AU	Access Unit[DD3]
BK	I cut off
BMC	No end of message or end of transmission received, therefore message cancelled
BT	End of address/Begin text signal
CF	Conversion Facility
COM	Connected [PAD service signal (see Recommendation X.28)]
DTE	Data Terminal Equipment
EOI	End of Input[DD4]
EOT	End of Transaction[DD5]
FAXIWF	Telex/Facsimile Interworking Function[DD6]
GA	You may transmit/May I transmit?
IMA	Input Message Acknowledgement[DD7]
ISDN	Integrated Services Digital Network
ITD	Input Transaction accepted for Delivery
ITL	I Transmit Later
IWF	Interworking Function[DD8]
MOB	Mobile
MOM	Wait/waiting
MSSFU	Maritime Satellite Store-and-Forward Unit[DD9]
ODA	On-line Delivery Acknowledgement[DD10]
O/R	Originator/Recipient[DD11]
PDN	Positive Delivery Notification[DD12]
PSPDN	Packet Switched Public Data Network
PSTN	Public Switched Telephone Network
PTLXAU	Public Telex Access Unit[DD13]
SEF	Status Enquiry Function[DD14]
SFU	Store-and-Forward Unit
TAED	Telex Automatic Emitting Device[DD15]
TPIWF	Telex Packet Interworking Function[DD16]
VTXCF	Telex/Videotex Conversion Facility[DD17]

1 Scope

1.1 This Recommendation defines the technical interworking principles with the international telex service.

Interworking as defined in this Recommendation is considered:

- i) between the international telex service and other CCITT defined services; or
- ii) between terminals of the international telex service and non-telex terminals connected to other networks; or
- iii) between two dissimilar networks providing the international telex service.

Interworking between telex signalling Types A, B, C and D is described in Recommendation U.15.

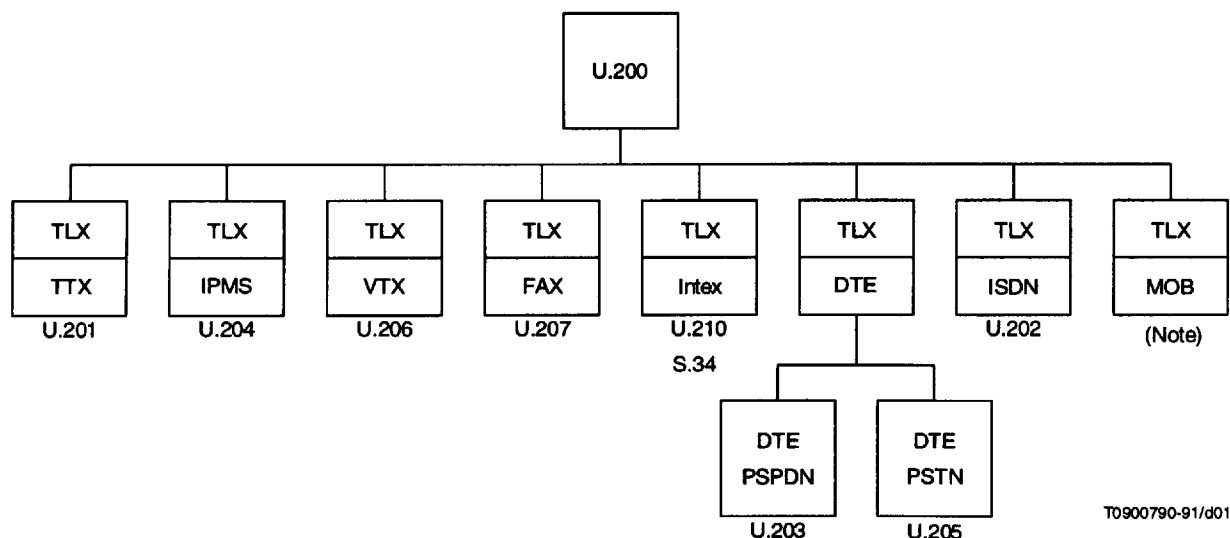
1.2 The objectives of this Recommendation are:

- to specify in a generic form the access protocol from the telex network to the interworking function and vice-versa;
- to specify in a generic form the different text transfer modes, applicable to interworking;
- to indicate the applicability of user and exchange facilities in the case of interworking;
- to indicate the degree of conformance with the basic characteristics of the international telex service resulting from the interworking scenario;
- to define a preferred access protocol for new interworking scenarios;
- to give an overview of all relevant interworking Recommendations.

1.3 The rapid evolution of data transmission and Telematic services has resulted in a large number of international standards in this field. The increasing complexity of the totality of these standards creates a need to standardize interworking procedures with the international telex service.

The telex service may be provided in the future by different types of public networks. As a result there may be a demand to interconnect these networks in order for a telex terminal on one network to communicate in a standardized way with a telex terminal on the same network, or on another network, or with a non-telex terminal of a network of another type.

This Recommendation is the first of a family of interworking Recommendations. Figure 1 and Table 1 give a summary of the relevant interworking Recommendations.



T0900790-91/d01

NOTE – U.208 Inmarsat-C/One-stage.

FIGURE 1/U.200
Organization of telex interworking Recommendations

TABLE 1/U.200

Family of interworking Recommendations relation to the international telex service

Title of the technical Recommendation	Technical Rec.	Service Rec.	Interworking Type ^{a)}
The international telex service – General technical requirements for interworking	U.200	F.80	I, II, III
Interworking between the Teletex service and the international telex service	U.201	F.81/F.201	I
Technical requirements to be met in providing the international telex service within an Integrated Services Digital Network	U.202	F.59/F.60	III
Technical requirements to be met when providing real-time bothway communications between terminals of the international telex service and data terminal equipments on a PSPDN or via the PSTN	U.203	F.83	II
Interworking between the international telex service and the public interpersonal messaging service	U.204	F.84/F.421	I
Store-and-retrieve facility for the delivery of messages from a terminal of the international telex service to a data terminal equipment which connects to a packet-switched public data network over the public switched telephone network	U.205	F.83	II
Technical requirements for interworking between the international telex service and the Videotex service	U.206	F.86	I
Technical requirements to be met for the transfer of messages between terminals of the international telex service and Group 3 facsimile terminals connected to the PSTN	U.207	F.87	I
The international telex service – Interworking with the INMARSAT C system using one-stage selection	U.208	F.127	II
Intex service – Network requirements to effect interworking with the international telex service ^{b)}	U.210	F.82	I
The international telex service – Technical requirements for a Status Enquiry Function in an interworking scenario	U.220	F.89	I, II
Intex terminals – Requirements to effect interworking with the international telex service ^{b)}	S.34	F.82	I
^{a)} As defined in 1.1. ^{b)} Intex – Provisional name.			

2 General interworking scenario

The operational procedures and full range of facilities available for each interworking case are described in Recommendation F.80 and other associated F-Series Recommendations.

The interworking capability shall be established by the provision of an Interworking Function (IWF). The method of implementation of an IWF in any physical unit is a national matter.

To avoid accounting problems on international interworking relations, the point of interworking between the two networks should always be in the country where the terminal connected to the other network and/or participating on the other service is located. Therefore the international connection should be via the telex network as shown in Figure 2. However, there are exceptions defined in the relevant F-Series Recommendations (e.g. Recommendation F.201).