INTERNATIONAL TELECOMMUNICATION UNION

# ITU-T U.220

TELECOMMUNICATION
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OF ITU

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## TELEGRAPH SWITCHING

## INTERNATIONAL TELEX SERVICE

# THE INTERNATIONAL TELEX SERVICE – TECHNICAL REQUIREMENTS FOR A STATUS ENQUIRY FUNCTION IN AN INTERWORKING SCENARIO

## ITU-T Recommendation U.220

(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.220 was prepared by the ITU-T Study Group IX (1988-1993) and was approved by the WTSC (Helsinki, March 1-12, 1993).

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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 Similarly, in this reform process, the CCIR and the IFRB have been replaced by the Radiocommunication Sector.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.220**

# THE INTERNATIONAL TELEX SERVICE – TECHNICAL REQUIREMENTS FOR A STATUS ENQUIRY FUNCTION IN AN INTERWORKING SCENARIO

*(Helsinki, 1993)*

## 1 Scope

**1.1** The provisions of this Recommendation are limited to enquiries concerning messages handled by an IWF in accordance with the relevant U-Series Recommendations. Status enquiry in respect of messages deposited into a telex SFU for delivery to the International Telex Service are handled in accordance with Recommendations F.72, U.80 and U.81. The provisions of this Recommendation should be applied to future implementations and, as far as possible, to existing implementations of IWF and SFU, in the latter case, as an alternative to the provisions of Recommendations F.72, U.80 and U.81 in respect of status enquiry.

**1.2** This Recommendation defines:

- a Status Enquiry Function (SEF) which will be always associated with an Interworking Function (IWF) or a store-and-forward unit (SFU);
- the protocols to be applied to enable a subscriber of the International Telex Service to request status information about one or more messages previously deposited;
- the format of the status information to be provided to a subscriber of the International Telex Service by an SEF in response to a status enquiry.

**1.3** The service requirements, relevant to a Status Enquiry Function are defined in Recommendation F.89.

## 2 General principles

### 2.1 Access types

Access to an SEF can be provided in one or both of the following ways:

**2.1.1** By use of an access number, different from the number used for the message deposit in an Interworking Function (IWF).

For the case that the message was deposited in a one-stage IWF, this type of access can only be applied.

The relating protocol is described in 3.1.

**2.1.2** By use of the same access number as used for the message deposit in an IWF.

The relating protocol is described in 3.2.

### 2.2 Applicability for a telex subscriber

**2.2.1** In an interworking environment, access to an SEF is normally applicable only for these interworking cases where store-and-forward principles apply for the telex-to-non-telex direction:

- telex-to-Teletex (see Recommendation U.201);
- telex-to-facsimile (see Recommendation U.207);
- telex-to-Inmarsat C (see Recommendation U.208).

**2.2.2** For interworking cases where store-and-retrieve principles apply in the telex-to-non-telex direction the SEF provides information about delivery to the destination subscribers mailbox (or user agent) only:

- telex/DTE (PSTN) (see Recommendation U.205);
- telex/IPMS (see Recommendation U.204);
- telex/Videotex (see Recommendation U.206).

Provision of information about delivery to the destination user is for further study.

**2.2.3** The provisions in this Recommendation can also be applied in case of a telex store-and-forward unit (SFU) for both, a basic telex/telex environment and a mixed environment where the SFU is used for telex and non-telex destinations.

## 2.3 Types of functions to be provided by the SEF

### 2.3.1 Information about single messages (ENQ)

The provision of information about a single message is only possible in cases where a message reference information was provided by the IWF at the deposit of the message. This is normally only possible in case of a two-stage IWF. However, where an IMA was used in case of a one-stage IWF a message reference information is available also in this case.

### 2.3.2 Journal (JOU)

The provision of information in the form of a Journal (information about all messages relevant to the calling telex answerback) is possible in all cases where the answerback of the calling telex subscriber was captured at message deposit. This is always the case in a two-stage IWF and most times in case of a one-stage IWF.

### 2.3.3 Cancel (CAN)

The provision of this function is only allowed for messages, addressed to destinations of certain services, i.e. where the definition of the interworking allows the cancellation of previously deposited messages (see specific F-Series Recommendation, e.g. F.87).

**2.4** The SEF shall ensure that information about messages shall be provided only to the originator. The relation between the subscriber and the deposited messages is checked by the IWF on the basis of the information contained in the subscribers answerback in one of the following ways:

- the national number and the TNIC, both captured under use of the rules laid down in Recommendation U.74; or
- on a character-by-character comparison where the answerback is not processable in accordance with Recommendation U.74.

**2.5** As the SEF needs information (request and message reference information) from the calling telex subscriber, the access protocol is normally interactive and can therefore be used with manual telex terminals only. The access to an SEF for Telex Automatic Emitting Devices (TAEDs) using a non-interactive protocol is for further study.

**2.6** Normally, information about a message will be deleted in an IWF either after successful delivery of the message or after successful delivery of an NDN.

Where an SEF is also provided in the IWF, information about the status of a message shall be available for enquiry at least 72 hours after acceptance.

**2.7** Any input into the SEF by the calling telex subscriber shall be on a single line and shall be terminated by a "+" character.

**2.8** Any response provided by the SEF should start within three seconds after a request by the calling telex subscriber.

# 3 Access protocols

## 3.1 Access protocol by use of an access number different from the normal IWF number

The access procedure is shown in Figure 1 and the appending notes.

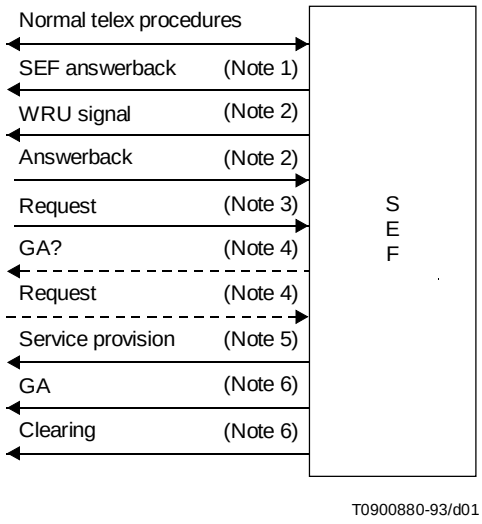


FIGURE 1/U.220

**Access to an SEF using a separate access number**

### 3.1.1 Note 1 to Figure 1

Coding of the SEF answerback shall be in accordance with Recommendation F.60 and shall contain the following information:

"Figs", "CR", "LF", National Number, "Lttrs", "SP", ENQ, "SP", 0

0 means the TNIC as in Recommendation F.69, e.g. "F" for FRANCE.

*Example:* 666001 enq f

### 3.1.2 Note 2 to Figure 1

A WRU signal shall be transmitted in accordance with Recommendation S.23.

On the basis of the answerback received (see 2.4), the SEF shall check if the status of one or more messages is stored for the calling subscriber. If no status of a message is stored the SEF shall return "NA" and disconnect.

### 3.1.3 Note 3 to Figure 1

The calling telex subscriber shall input his request, consisting of:

- a service request identifier;
- the message reference information as received at the message deposit;
- the end of address signal (+).

Service request identifier and message reference information shall be separated by a space character.

The following service request identifiers may be provided by the calling telex subscriber:

ENQ (the SEF shall also accept the complete word ENQUIRY)

CAN (the SEF shall also accept the complete word CANCEL)

JOU (the SEF shall also accept the complete word JOURNAL)

In the JOURNAL case a message reference information is not necessary to be provided by the calling telex subscriber.

*Examples:*

ENQ xxxxx+
CANCEL xxxxx+
JOU+
ENQUIRY xxxxx+
ENQ+

xxxxx stands for the message reference information.

### 3.1.4 Note 4 to Figure 1

If the telex subscriber does not commence input within five seconds, the SEF shall send a "GA?" prompt. In response, the telex subscriber shall provide his request as in 3.1.3.

If the telex subscriber does not start within another 15-second period or pauses for 15 seconds, the SEF shall return "NP" and clear the call.

If the telex subscriber does provide an invalid service request the SEF shall return the relevant code expression and disconnect.

### 3.1.5 Note 5 to Figure 1

If the SEF identified a message reference information as relevant to a message (when applicable) belonging to the calling telex subscriber, the SEF will, according to the service request identifier, provide the following information.

If the SEF could identify a message reference information, to which no message status is available for the caller the text "NO MESSAGE" shall be returned followed by a "GA" as in 3.1.6.

**3.1.5.1** In case of ENQ, followed by a valid message reference, the status of the message containing:

a) message reference information;

b) status of the message, either:

- "delivered"; or
- "not yet delivered"; or
- "not delivered"; or
- "cancelled",

c) called address;

d) answerback or terminal identification received (where relevant);

e) number of delivery attempts (if relevant);

f) latest reason for non-delivery (if relevant);

g) date/time of last delivery attempt (optional)

"not yet delivered" stands for:

- message is in transmission phase; and/or
- message is scheduled for additional delivery attempts; or
- first delivery attempt did not commence,

"not delivered" means that no further attempt will be made to deliver the message. The content of the message is no longer available.

The format of the status provision is a national matter.

Where the calling telex subscriber provided an ENQ indicator in relation to a multi-address message the status of the message should be provided in a Journal form as described in 3.1.5.3.

**3.1.5.2** In case of CAN, information containing:

- message reference information;
- time of message deposit (may be part of the message reference information);
- called address;
- the words;
  - "CANCELLED" or
  - "UNABLE TO CANCEL" in case the message is in transmission; or
  - "DELIVERED".

The format of the information is a national matter.

**3.1.5.3** In case of JOU+, or ENQ+, a Journal containing for each message (and address in the case of multi-address) the same information as for a status provision (see 3.1.5.1).

The format of the Journal is a national matter, but shall show the information for one message (or address) on a single line.

The order of the information lines shall be as the messages where submitted, the latest being the first. A pause of three seconds shall be inserted in the text stream after every five lines of status information to facilitate clearing of the connection by the originating telex subscriber.

An example for a Journal can be found in Recommendation U.81.

### 3.1.6 Note 6 to Figure 1

After the information provision the SEF shall send a "GA" prompt and wait 15 seconds to allow the telex subscriber a new request. If no new request or clearing is detected the SEF shall clear in accordance with Recommendation S.20.

## 3.2 Access protocol by use of the same access number as the normal IWF number

The access procedure is shown in Figure 2 and the appending Notes.

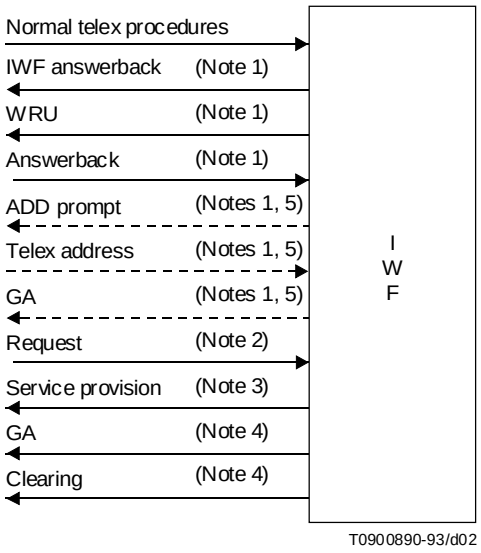


FIGURE 2/U.220

**Access to the SEF using the same access number as the normal IWF number**

### 3.2.1 Note 1 to Figure 2

Same procedure as for the normal IWF protocol, as defined in the relevant U-Series Recommendation.

### 3.2.2 Note 2 to Figure 2

Instead of the input of the called address, the telex subscriber shall input his request as in 3.1.3.

If no message is stored for the calling subscriber the IWF shall react as in 3.1.2.

### 3.2.3 Note 3 to Figure 2

See 3.1.6.

### 3.2.4 Note 4 to Figure 2

See 3.1.7.

Instead of a new service request identifier the telex subscriber may input a new called address as relevant to the IWF.

### 3.2.5 Note 5 to Figure 2

In accordance with Recommendation U.200, this ADD prompt does not apply to a TPIWF (see Recommendation U.203) and to a VTXCF (see Recommendation U.206).