



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

F.182 *bis*

(10/96)

SERIES F: NON-TELEPHONE TELECOMMUNICATION
SERVICES

Telematic services – Public facsimile service

**Guidelines for the support of the
communication of documents using Group 3
facsimile between user terminals via public
networks**

ITU-T Recommendation F.182 *bis*

(Previously CCITT Recommendation)

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For further details, please refer to ITU-T List of Recommendations.

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 F.182 *bis*, was prepared by ITU-T Study Group 1 (1993-1996) and was approved by the WTSC (Geneva, 9-18 October 1996).

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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SUMMARY

This Recommendation defines the guidelines for the support of the communication of documents using Group 3 facsimile between user terminals via public networks and is intended to apply in those cases where an ROA or service provider does not wish to offer a Telefax 3 service as defined in Recommendation F.182. This Recommendation is based upon existing Recommendation F.182 but has been developed to reflect the changing telecommunications environment with regard to the provision of regulated “end-to-end” services.

GUIDELINES FOR THE SUPPORT OF THE COMMUNICATION OF DOCUMENTS USING GROUP 3 FACSIMILE BETWEEN USER TERMINALS VIA PUBLIC NETWORKS

(Geneva, 1996)

1 Scope

1.1 This Recommendation defines the guidelines which may be considered by ROAs or service providers in supporting the communication of documents using Group 3 facsimile.

1.2 The communication of documents using Group 3 facsimile enables users to exchange documents either manually or automatically via telecommunication networks across international boundaries.

1.3 The basic element of the correspondence between people is the page, as the smallest unit of text treated as an entity. No restrictions shall exist as far as the user procedures for generation of the text or the positioning of text within the reproducible area on a page are concerned.

1.4 Questions of an essentially technical nature concerning the communication of documents using Group 3 facsimile are dealt with in the T-Series Recommendations.

1.5 Provision for communication of documents using Group 3 facsimile may vary from one ROA to another. In some networks, the communication may be provided on an unassured basis and have no guarantee of the quality of transmission, transmission speed, etc. For example, in some cases the call is treated in the same way as a telephone call.

NOTE – If an ROA does not wish to follow the guidelines defined in this Recommendation, then consideration could be given to the use of Recommendation F.182.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; all users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

- ITU-T Recommendation F.182 (1996), *Operational provisions for the international public facsimile service between subscribers with Group 3 facsimile terminals (Telefax 3)*.
- ITU-T Recommendation F.180 (1996), *General operational provisions for the international public facsimile service between subscribers' terminals (Telefax)*.
- ITU-T Recommendation T.4 (1996), *Standardization of Group 3 facsimile terminals for document transmission*.
- ITU-T Recommendation T.30 (1996), *Procedures for document facsimile transmission in the general switched telephone network*.
- ITU-T Recommendation T.505 (1994), *Document application profile PM-26 for the interchange of enhanced structure, mixed content documents in processable and formatted forms*.

3 Abbreviations

This Recommendation uses the following abbreviations:

- ITU-T International Telecommunication Union – Telecommunication Standardization Sector
- ROA Recognized Operating Agency

4 General provisions

4.1 General

The essential characteristic of the communication of documents using Group 3 facsimile is that it provides a basic level of compatibility between all terminals supporting the Group 3 capabilities.

4.2 Basic requirements

- a) The basic level of compatibility is provided between any two terminals internationally so that they may communicate image coded information to each other. This is achieved by terminals complying with Recommendations T.4 and T.30;
- b) it is for each ROA or service provider to decide on the network(s) on which the communication of documents using Group 3 facsimile will be carried. There is no restriction on the type of network to be used;
- c) it should be possible to extend the communication of documents using Group 3 facsimile to any number of countries;
- d) to permit private use options, for example encryption, there is no technical limitation on the bit sequence of the user's information that may be transmitted;
- e) a received Group 3 document can be printed or displayed as decided by the recipient and the terminal characteristics. If the document is printed, the receiving user will be furnished with a document that is identical with that produced by the sending user as far as its contents, layout and format are concerned;
- f) it is intended that support for the communication of documents using Group 3 facsimile requires no changes to the Recommendations for existing services or networks.

4.3 Standardized options

4.3.1 It is recognized that some users may need to use their Group 3 facsimile terminals to communicate internationally using features that are not included in the basic requirements. A number of ITU-T standardized options have therefore been defined. However, the provision of any option may lead to some degree of incompatibility and the number of standardized options has been restricted to those features which are listed below and for which a clear international need can be foreseen.

The sending terminal ensures the transmission of documents using only those options that have been indicated as being available at the receiving terminal.

4.3.2 The standardized options provide means for:

- a) higher data signalling rates (Recommendation T.4);
- b) subscriber identification (Recommendation T.30);
- c) Error Correction Mode (ECM) (Recommendation T.4);
- d) higher resolutions (Recommendation T.4);
- e) optional coding schemes (Recommendation T.4);
- f) optional page sizes (Recommendation T.4);
- g) polling (Recommendation T.30);
- h) Selective Polling (SEP) (Recommendation T.30);
- i) Password for polling (PWD) (Recommendation T.30);
- j) Sender Identification (SID) (Recommendation T.30);
- k) Sub-addressing (SUB) (Recommendation T.30);
- l) coded character mode (Recommendation T.4);
- m) Binary File Transfer mode (BFT) (Recommendation T.4);
- n) Basic Transfer Mode (BTM) (Recommendation T.4);
- o) Document Transfer Mode (DTM) (Recommendation T.4);
- p) Electronic Document Interchange (EDI) (Recommendation T.4);

- q) simple mixed mode (Recommendation T.4);
- r) processable mode 26 (Recommendation T.505);
- s) digital network operation (Recommendation T.30).

NOTE – As the communication of documents using Group 3 facsimile evolves and further market and user requirements are identified, there is a continuing need for further study and consequently changes may be required to the above list.

4.4 Communication between terminals takes place at the level of compatibility at, or nearest to, the parameters initially selected by the originating user. The determination of this level is carried out automatically via the premessage procedures. This takes into account aspects of the quality of transmission media available in the participating networks and the options available on the receiving terminal.

5 Network requirements

5.1 It is the responsibility of each ROA or service provider to decide on which network(s) the communication of documents using Group 3 facsimile is to be provided.

5.2 The communication of documents using Group 3 facsimile may be supported over all public networks using the appropriate ITU-T technical Recommendations.

If the Integrated Services Digital Network is used, the communication of documents using Group 3 facsimile will be supported as appropriate.

5.3 Terminals on any public network which support the communication of documents using Group 3 facsimile are able to communicate automatically with terminals supporting the communication of documents using Group 3 Facsimile on any other public network.

6 Procedures for the transmission of documents

The technical procedures for transmitting documents using the communication of documents using Group 3 facsimile are given in Recommendation T.30.

7 Coding scheme

7.1 The basic coding scheme for the communication of documents using Group 3 facsimile is given in Recommendation T.4.

7.2 The optional image coding schemes are given in Recommendation T.4.

7.3 The optional character coding repertoire is given in Recommendation T.4.

8 Operation

8.1 Support for the communication of documents using Group 3 facsimile in each country and the interconnection between countries or networks should use fully automatic switching so that it is possible for any user to reach any other user using fully automatic selection.

8.2 It is recommended to allow the through connection of a call between terminals connected to a private automatic branch exchange (or similar systems) and those connected to public exchanges used to provide support for the communication of documents using Group 3 facsimile.

9 Terminal identification

9.1 On the PSTN, an answering tone of 2100 Hz identifies connection to a non-voice terminal. Additionally, an automatic identification may be provided, see 9.3. ROAs and service providers may wish to consider recommending to users that the terminal identity is entered in the format described in 9.3.

9.2 If the pages are printed, it is desirable for the identification of the transmitting terminal to appear at the receiving terminal, in the form of an identification line printed at the top of each page received, in an area 10 mm deep extending across the whole width of the page. This area may be either inside or outside the nominal A4 page, in accordance with the option selected by the user.

9.3 The terminal identification consists of up to 20 characters (including only digits and spaces). For the PSTN and the ISDN, the identification is the international telephone number and the format is as follows: plus sign, country code, space, area code, space, user's number. The coding arrangements are defined in Recommendation T.30.

The form of the terminal identification on other networks is for further study.

9.4 At the transmitting terminal, the identification of the receiving terminal may be displayed or printed.

10 User terminals

10.1 A range of data signalling rates has been defined as follows:

10.1.1 Public switched telephone network

Terminals on the public switched network are able to operate at the basic data signalling rate of 4800 bit/s with fall-back to 2400 bit/s. In addition, higher data signalling rates may be provided. Details are given in Recommendation T.30.

10.1.2 Integrated Services Digital Network (ISDN)

If the Integrated Services Digital Network is used, the communication of documents using Group 3 facsimile will be provided as appropriate.

10.1.3 Public data networks

For further study.

10.2 The facilities required in terminals participating in the international communication of documents using Group 3 facsimile are listed in the following subclauses:

10.2.1 Group 3 facsimile terminals have the ability to send, receive and display documents encoded with the image coding scheme defined in Recommendation T.4. In addition, they may have the ability to utilize the optional coding schemes defined in Recommendation T.4.

10.2.2 No constraints shall be placed upon the type of presentation technology employed.

11 Directories

As a means of stimulating the use of the network(s), some ROAs or service providers may wish to consider publishing or encouraging other organizations to publish a directory of users.

The format of the directory is outside the scope of this Recommendation.

ITU-T RECOMMENDATIONS SERIES

- Series A Organization of the work of the ITU-T
- Series B Means of expression: definitions, symbols, classification
- Series C General telecommunication statistics
- Series D General tariff principles
- Series E Overall network operation, telephone service, service operation and human factors
- Series F Non-telephone telecommunication services**
- Series G Transmission systems and media, digital systems and networks
- Series H Audiovisual and multimedia systems
- Series I Integrated services digital network
- Series J Transmission of television, sound programme and other multimedia signals
- Series K Protection against interference
- Series L Construction, installation and protection of cables and other elements of outside plant
- Series M Maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits
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