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DIRECTORY SERVICES

SERVICE RECOMMENDATION FOR THE TELEMATIC FILE TRANSFER WITHIN TELEFAX 3, TELEFAX 4, TELETEX SERVICES AND MESSAGE HANDLING SERVICES

ITU-T Recommendation F.551

(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 F.551 was prepared by the ITU-T Study Group I (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 Similarly, in this reform process, the CCIR and the IFRB have been replaced by the Radiocommunication Sector.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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INTRODUCTION

Transfering files of any kind in addition to basic documents within a Telematic service is a need from the user's point of view.

The present service Recommendation deals with Telefax 3, Telefax 4, Teletex services and message handling services.

The objective is to define a common vocabulary for the file transfer provided within these services and to describe the common set of information which may be found in the file descriptor.

Recommendation F.551

SERVICE RECOMMENDATION FOR THE TELEMATIC FILE TRANSFER WITHIN TELEFAX 3, TELEFAX 4, TELETEX SERVICES AND MESSAGE HANDLING SERVICES

(Helsinki, 1993)

1 Scope

This Recommendation defines a communication mode, so-called Telematic File Transfer (TFT), which may be used by apparatus participating in Telefax 3, Telefax 4, Teletex services and message handling services.

This mode is a standardized option of these services. The intention is not to define a new CCITT service. This Recommendation defines essentially the information which is common to all services listed above.

The TFT provides the user with a means to exchange files of any kind (binary files, wordprocessor native format documents, EDI, etc.) in addition to standardized basic documents.

The TFT has been defined as simple as possible in order to be quickly implemented and at low cost.

All service rules, respectively in Recommendations F.182 [1] for Telefax 3, F.184 [2] for Telefax 4 and F.200 [3] for the Teletex service apply.

Technical Recommendations defining the TFT are described in T.565 [8] for Telefax 4 and the Teletex Services, in Annex C/T.4 [5] for Telefax 3 and Binary File Transfer in Annex H/T.30 for Telefax 3.

File transfer in the Message Handling Services is effected by using a File Transfer Body Part based on BFT in the Interpersonal Messaging Service. This is described in Recommendations X.400 and X.420.

2 Normative references

At the time of publication, the editions indicated were valid. All Recommendations are subject to revision. The TSB secretariat maintains a list of currently valid CCITT Recommendations.

[1] Recommendation F.182 – Operational provisions for the international public facsimile service between subscriber stations with group 2 and group 3 facsimile machines (Telefax 2 and Telefax 3).

[2] Recommendation F.184 – Operational provisions for the international facsimile service between subscriber stations with group 4 facsimile machines (Telefax 4).

[3] Recommendation F.200 – Teletex service.

[4] Recommendation T.434 – Binary File Transfer protocol for the Telematic services.

[5] Recommendation T.4 – Standardization of group 3 facsimile apparatus for document transmission – Annex C: Optional File Transfer for group 3.

[6] Recommendation T.30 – Procedures for document facsimile transmission in the general switched telephone network – Annex H : Procedure for Binary File Transmission with protocol examples.

[7] Recommendation T.51 – Coded character set for Telematic services.

[8] Recommendation T.565 – Terminal characteristics for the Telematic File Transfer within facsimile group 4 and Teletex services.

[9] Recommendation X.209 – Specification of basic encoding rules for abstract syntax notation one (ASN1).

[10] ISO/IEC 9735 – Electronic Data Interchange For Administration Commerce and Transport (EDIFACT).

[11] ISO 8569 – File Transfer, Access and Management (FTAM).

3 Definitions

For the purpose of this Recommendation, the following definitions apply.

3.l user data file: The user data file is the information of any kind (e.g.: binary files, documents in standardized or private formats, spread sheets, etc.) that the user wishes to transmit from an equipment to an other equipment.

3.2 file descriptor: The file descriptor is the information describing the user data file. When transmitted, this information preceeds the user data file.

3.3 telematic File Transfer: The Telematic File Transfer Mode is a communication mode which provides the user of a Telematic equipment (Facsimile Group 3, Facsimile Group 4, or Teletex equipment) with a means to exchange User data files.

NOTE – In particular, the Telematic File Transfer provides the user of these equipments with a means to exchange Edifact files according to ISO/IEC 9735 [10] rules.

4 Abbreviations

For the purpose of this Recommendation, the following abbreviations shall apply:

TFT Telematic File Transfer

BFT Binary File Transfer

5 Features Telematic Service Dependent (TFT)

5.l Negotiation

5.1.1 Negotiation of the TFT mode

When provided by an equipment, the TFT mode may be negotiated during the "pre-information phase" of the communication. This feature is service dependent and may be found in the technical Recommendations where needed.

5.1.2 Negotiation of the descriptor coding

This feature (see 6.2) is also service dependent and may be found in the technical Recommendations where needed.

5.2 Other features

5.2.1 File name

The file name may be a very useful information for people exchanging files or documents. It may be sent within the file descriptor, but depending on the CCITT service used, it may also be sent within the protocol (see relevant technical Recommendations).

5.2.2 Free user field

Depending on the CCITT service used, some short additional information (e.g.: how to manage the received file, references, which software is to be run, etc.) may also be inserted within the protocol in order to help the recipient (see relevent technical Recommendations).

6 File Descriptor

6.l General

The content of the file descriptor is common to all Telematic services and is detailed in this clause.

The file description is transmitted ahead of the user data file and concatenated with this one latter.

The sending of a file descriptor is not mandatory on the sending side.

When received, it may be ignored by the receiving apparatus.

6.2 Coding

The coding of the file descriptor may vary depending on the process to be done on this file descriptor at the receiving side.

6.2.1 Control Document

If the file descriptor is to be human readable, the file descriptor is to be encoded as a document.

For Facsimile group 4 and Teletex terminals, the file descriptor is included in a separate document, so-called Control Document.

For Facsimile group 3 terminals, the file descriptor is included in a header, T.51 [7] coded, sent prior to the file and concatenated with this one latter on.

6.2.2 Binary File Transfer

If the file descriptor is to be automatically processed at the receiving side, the BFT (Binary File Transfer) may be used. In this case, the coding rules which apply for the file descriptor are technically aligned on those of FTAM (coding according to Recommendation X.209 [9]).

6.3 Content of the descriptor

The descriptor is composed of a collection of information which may be provided either manually by the sender or automatically by the sending equipment (e.g.: file name, length, structure, etc.).

Table 1 records the information types which may be transmitted within the file descriptor.

Each information type is optional.

The descriptor may be completely empty, since its content is under the control of the sender.

TABLE 1/F.551

Content of the descriptor

Information Type	Content
File name	File name.
Application reference	Reference to an application relevant to the transferred file.
Type	Indicates the data type of content of the file (coding, unstructured text, binary, etc.).
Machine	Machine on which the file may be used.
Operating system	Operating system to be used.
Program	Commercial name of the program to be used.
Character set	Character set to be used for printing out the file (case of text file).
Last revision	Indicates the date and time of modification of the file.
Length	Indicates the actual length of the file, nominal size of the complete file when the file is closed.
Path name	Directory where the file should be stored.
Reserved	Reserved for further study.
Author name	Indicates the name of the creator of the file.
User visible string	User readble comments
Future file length	Indicates the nominal length to which the file may grow as a result of modification and extension.
Structure	Indicates how the file is structured.
Permitted actions	indicates the set of actions that can be performed on the file (read, insert, replace, erase).
Legal qualification	Conveys information about the status and use of the file.
Creation	Indicates the date and time of the creation of the file.
Last read access	Indicates the date and time of the last reading of the file.
Identity of the last modifier	It is altered by the receiver whenever the file has been opened for modification or extension and is closed.
Identity of the last reader	It is altered by the receiver whenever the file has been opened for reading and is closed.
Recipient	Receiver of the message.
Telematic file transfer version	Indicates the Telematic file transfer method version being used (Recommendation and Date).
Compressed	Indicates compression method used on file
NOTE – Inclusion of one or more additional information field(s) indicating different types of operations (e.g.: fetching a file or file directory from the remote terminal equipment) requires further study.	