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ITU-T F.301

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OPERATIONS AND QUALITY OF SERVICE
TELEMATIC SERVICE

FAST SPEED PSTN VIDEOTEX

ITU-T Recommendation F.301

(Previously “CCITT Recommendation”)

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.301 was prepared by ITU-T Study Group 1 (1993-1996) and was approved under the WTSC Resolution No. 1 procedure on the 3rd of October 1995.

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 describes a high-speed terminal access to videotex services for use on the Public Switched Telephone Network (PSTN). It is equally applicable to any of the three defined regional data syntaxes. It provides not only for faster throughput, but also access to new capabilities that are not feasible at lower speeds.

Recommendation F.301

FAST SPEED PSTN VIDEOTEX

(Geneva, 1995)

1 Definition

Fast-speed videotex is defined as the access to videotex services via the PSTN with a modem speed faster than 2400 bit/s in both ways (modems V.27 *ter* short train, V.29 short train as defined by Recommendations T.104, V.32, V.32 *bis*, V.34).

2 Description of the service

2.1 General description

Compared to existing videotex speeds (1200/75, 1200/1200, 2400/2400, 4800/75 bit/s), fast speed videotex provides a higher throughput and corresponding ease of use of existing alphamosaic, alphaphoto and alphageometric and file transfer services. It also meets new requirements such as the enhancement of text services with low resolution still pictures following JPEG-ISO/DIS 10.918 compression algorithm (Annex F/T.101, describes the photographic syntax to be used in videotex services).

Access to services is made with terminals that may or may not be dedicated to videotex use. Because of the higher cost of these terminals, the market for fast speed videotex is first seen to be professional users and then should progressively spread to the mass market.

Implementation of fast-speed videotex should be upwards compatible with the traditional videotex systems as far as the terminals, the network and the service aspects are concerned.

2.2 Specific terminology

See *Blue Book*, clause 2/F.300, "Definition of terms".

2.3 Applications

At present, there are three types of applications identified for fast-speed videotex:

- Faster access of existing alphamosaic, alphaphoto and alphageometric services – This application concerns all the existing services and does not necessarily require any modification of those services.
- File transfer – This application concerns existing services and does not necessarily require any modification of those services.
- Enhancement of text services with still pictures in various fields such as real estate, medicine, tourism, agriculture, shows, sports, etc.

3 Procedures

If an end user introduces a request for a feature (i.e. photo) incompatible with that user's terminal, a service message should be sent to the user advising that that particular feature cannot be accessed from that type of terminal.

4 Network aspects

The existing network infrastructure for current videotex is used with additional fast-speed ports.

5 Charging considerations

As far as the end user is concerned, fast-speed videotex does not necessarily imply any change in the existing billing system.

The appropriate billing system will need to take into account the increased volume according to the scheme in use nationally:

- flat rate;
- multirate;
- charge dependent on the transmitted volume.

When several transport classes (in terms of number of bytes per second) are available, the information provider or the videotex operator has to choose the most appropriate transport class, regarding the type of his service. The service provider may be charged for each overflow.

For further details, see the D-Series Recommendations.

6 Terminals

The terminal may be dedicated for videotex use or not. The use of multi-speed modems allows accessing high speed and photographic services, as well as current videotex services.

Terminals based on microcomputers may be able to use file transfer services. The compression with the JPEG Standard allows the display of low resolution still images.

The main body of Recommendation T.101 (1992) has defined a mechanism called "TFI: Terminal Facility Identifier" which could be used to determine the capabilities of the terminal (e.g. photographic profiles).

NOTE – It should be noted that:

- this TFI mechanism is applicable to the three regional data syntaxes (Captain, CEPT and NAPLPS);
- the photographic profiles are common to the three regional syntaxes.

7 Quality of Service

See *Blue Book*, clause 7/F.300.

8 Interoperability

8.1 Interoperability with other telematic services

See *Blue Book*, clause 6/F.300.

8.2 Interoperability between videotex systems[1)]

The international interworking of the national fast-speed videotex systems is consistent with the principles described in clause 5/F.300, "International interworking of videotex services".

In the case of transmitting still pictures, existing international gateways should be made transparent to photovideotex syntax, even if they have to transcode the data syntax.

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1) In the case of international fast-speed videotex, a bilateral agreement may be required to cover sharing of transportation costs between the two countries and the possibility of imposing overflow surcharge. For further details, see the D-Series Recommendations.