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**Digitalno omrežje z integriranimi storitvami (ISDN) – Dostop do datotek in upravljanje njihovega prenosa (FTAM) prek sistema ISDN na podlagi enostavnega profila za prenos datotek**

Integrated Services Digital Network (ISDN); File Transfer, Access and Management (FTAM) over ISDN based on simple file transfer profile

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Digitalno omrežje z  
integriranimi storitvami  
(ISDN)

Integrated Services Digital  
Network (ISDN)

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## Foreword

This European Telecommunication Standard (ETS) was produced by the Terminal Equipment (TE) Technical Committee of the European Telecommunications Standards Institute (ETSI).

<b>Proposed transposition dates</b>	
Date of latest announcement of this ETS (doa):	31 May 1995
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## 1 Scope

This ETS specifies simple file transfer as a teleservice over the Integrated Services Digital Network (ISDN) using File Transfer Access and Management (FTAM - EN 30607 Parts 1 to 6 [5] (incorporating the corrigenda) and ISO/IEC 8571, Parts 1 to 5 [6]).

A basic ETS, fully compatible with the Simple File Transfer ETS as described in ISO/IEC ISP 10607 Parts 1 to 3 [1], [2], [3] & [4], the equivalent European Norm, EN 30607 [5], and in ISO TR 10000-2 is described. Conditional extensions which cover additional ETSI requirements are also specified. An implementation claiming full conformance to this teleservice is to support all of these conditional extensions. Basic and full implementations may interwork, as the extensions can be negotiated out in the initialization phase. The specification of the mapping between ISO Session Service and a Transport Service running over ISDN is based on ETS 300 080 [13].

This ETS is presented in a number of clauses. Clauses 6 to 9 specify the FTAM specific part of the ETS and is based on "Simple File Transfer", EN 30607, Part 3 [5]. It could become the first of a family of ETSS for the use of FTAM over ISDN, with additional, more powerful ETSS based on ISO/IEC ISP 10607, Parts 4 to 6.

Clause 10 gives the "Specification of the ACSE, Presentation and the Session protocols for the use by FTAM", and notes the additional constraints to EN 30607, Part 1 [5].

Clauses 11 and 12 give lower layer application rules for the Transport Service to be used based on ETS 300 080 [13]. Again it notes the additional constraints in this ETS for the support of the teleservice "File Transfer Access and Management (FTAM) over ISDN, based on simple file transfer".

The ETS also contains three annexes. Annex A (normative) is a delta ETS Implementation Conformance Statement Requirements List for FTAM, based on annex A of EN 30607-3 [5], the second (annex B (informative)) is a set of recommendations on parameter combinations through the lower four layers to achieve optimum throughput and the third (annex C (informative)), provides a bibliography of non-normative references given in this ETS.

The ETS is, therefore, structured as follows:

Clause(s)	Title
6 - 9	FTAM (this part plus the PICS);
10	ACSE, Presentation and Session;
11 - 12	Lower layers and Transport based on ETS 300 080 [13];
annexes A+B	ISPICS for the FTAM specific part and lower layer parameters.

The FTAM part of the ETS is based on (and conformant to) EN 30607-3 [5] which has additional European specific text preceding the ISO ISP text. It also, however, references ISO/IEC ISP 10607-3 [4] for international completeness. It is also aligned with the recommendations in the CEC European Procurement Handbook for Open Systems (EPHOS). For example, EPHOS defines that for a general purpose system for terminal-to-terminal or to host, all four possible roles (initiator and responder, sender and receiver) are implemented as is needed for a system claiming full conformance to the teleservice. Basic conformance to the teleservice can be claimed for specialized systems as identified in subclause 6.1.

Additional restrictions are defined for the specific ISDN environment and these are clearly identified in clause 9.

Some of the European Workshop for Open Systems (EWOS) conformance Abstract Test Suites (ATS) will be selected and can be applied to the teleservice FTAM Simple File Transfer over ISDN with a few changes and additions. This is used with ISDN specific additions for the Transport mapping.

## 2 Normative references

This ETS incorporates by dated or undated reference, provision from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revision of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- [1] ISO/IEC ISP 10607-1 (1990): "Information technology - International Standardized Profiles AFTnn -File Transfer, Access and Management - Part 1: Specification of ACSE, Presentation and Session Protocols for the use by FTAM" (corrected and reprinted 1991-12-15).
- [2] ISO/IEC ISP 10607-2 (1990): "Information technology - International Standardized Profiles AFTnn - File Transfer, Access and Management - Part 2: Definition of document types, constraint sets and syntaxes" (corrected and reprinted 1991-12-15).
- [3] ISO/IEC ISP 10607-2(a), Amendment 1 (1991): "Amendment 1 to ISO/IEC ISP 10607-2:1990, Additional Definitions".
- [4] ISO/IEC ISP 10607-3 (1990): "Information technology - International Standardized Profiles AFTnn - File Transfer, Access and Management -Part 3: AFT11 Simple File Transfer Service (unstructured)" (corrected and reprinted 1991-12-15).
- [5] EN 30607, Parts 1 to 6 (1993): "Textually identical to ISO/IEC ISP 10607 with European specific character set foreword".
- [6] ISO/IEC 8571 (1988): "Information processing systems - Open Systems Interconnection - File Transfer, Access and Management -  
 Part 1 - General introduction,  
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 Part 2 - Virtual Filestore definition,  
 Part 3 - File Service Definition,  
 Part 4 - File Protocol specification,  
 Part 5 - Protocol Implementation Conformance Statement Proforma".
- [7] ISO/IEC 8571, Parts 1 to 5 (1992): "Information Processing Systems - Open Systems Interconnection - File Transfer, Access and Management, Amendment 1 to Parts 1 to 5: Filestore Management".
- [8] Technical Corrigendum 1 to ISO/IEC 8571-1:1988 (1991): "Information Processing Systems - Open Systems Interconnection - File Transfer, Access and Management - Part 1: General introduction".
- [9] Technical Corrigendum 1 to ISO/IEC 8571-2:1988 (1991): "Information Processing Systems - Open Systems Interconnection - File Transfer, Access and Management - Part 2: Virtual Filestore Definition".
- [10] Technical Corrigendum 1 to ISO/IEC 8571-3:1988 (1991): "Information Processing Systems - Open Systems Interconnection - File Transfer, Access and Management - Part 3: File Service Definition".
- [11] Technical Corrigendum 1 to ISO/IEC 8571-4:1988 (1991): "Information Processing Systems - Open Systems Interconnection - File Transfer, Access and Management - Part 4: File Protocol specification".

- [12] Technical Corrigendum 1 to ISO/IEC 8571-5:1988 (1991): "Information Processing Systems - Open Systems Interconnection - File Transfer, Access and Management - Part 5: Protocol Implementation Conformance Statement Proforma".
- [13] ETS 300 080 (1992): "Integrated Services Digital Network (ISDN); ISDN lower layer protocols for telematic terminals".
- [14] ISO 8327 (X.225) (1987): "Information processing systems - Open Systems Interconnection - Basic connection oriented session protocol specification (and Addendum 2)".
- [15] ISO/IEC 8073 (X.224) (1992): "Information processing systems - Open Systems Interconnection - Protocol for providing the connection - mode transport service".
- [16] ISO/IEC 8208: "Information technology- Data communications - X.25 Packet Layer Protocol for Data Terminal Equipment".
- [17] CCITT Recommendation X.223 (1988): "Use of X.25 to provide the OSI connection-mode network service for CCITT applications".
- [18] ENV 41112 (T/1112): "Provision of OSI Connection-Mode Transport Service over the OSI Connection-mode Network Service by using an ISDN Circuit-mode 64 Kbits Unrestricted Bearer Service: Demand Case".
- [19] ISO 7776 (1986): "Information processing systems - Data communications - High level procedures Description of the X.25 LAPB - compatible DTE data link procedures".
- [20] CCITT Recommendation X.75 (1984): "Packet switched signalling system between public networks providing data transmission services".
- [21] CCITT Recommendation T.90 (1988): "Characteristics and protocols for terminals for telematic services in ISDN".
- [22] prETS 300 410: "Integrated Services Digital Network (ISDN); File Transfer and Access Management (FTAM) teleservice, Service description".
- [23] ITU-T Recommendation I.333 (1992): "Terminal selection in ISDN".
- [24] prETS 300 403-1: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) - User-network interface layer 3 specification for basic call control - Part 1: Protocol specification - [ITU-T Recommendation Q.931 (1993), modified]".

### 3 Definitions and abbreviations

#### 3.1 Definitions

For the purposes of this ETS, the terms used in EN 30607-3 [5], ISO 8571 [6] and ISO 7498 are used with the same meaning. The abbreviations used in the Profile Implementation Conformance Statement Requirements List are duplicated for convenience.

### 3.2 Abbreviations

For the purposes of this ETS, the following abbreviations apply:

ACSE	Association Control Service Element
AFT	Application File Transfer profile
ATS	Abstract Test Suite
DISP	Draft International Standardized Profile
CEC	Commission of the European Communities
EN	European Norm
EPHOS	European Procurement Handbook for Open Systems
ETS	European Telecommunication Standard
ETSI	European Telecommunications Standards Institute
EWOS	European Workshop for Open Systems
FTAM	File Transfer Access and Management
HLC	Higher Layer Compatibility information element
IEC	International Electrotechnical Committee
ISDN	Integrated Services Digital Network
ISO	International Organisation for Standardization
ISP	International Standardized Profile
ISPICS	ISP Implementation Conformance Statement
MLS	Maximum Level of Security or Multi Level Security system
NSAP	Network Service Access Point
ODA	Office Document Architecture
ODIF	Office Document Interchange Format
PICS	Protocol Implementation Conformance Statement
PDU	Protocol Data Unit
PSPDN	Packet Switched Public Data Network
SABM	Set Asynchronous Balanced Mode
SNPA	Sub-Network Point of Attachment
SPDU	Session Protocol Data Unit
TSAP	Transport Service Access Point
TSAP-Id	TSAP Identifier
VT	Virtual Terminal

Support level for protocol features

m	supported (mandatory)
o	optionally supported
c	conditionally supported
x	excluded
i	outside the scope
-	not applicable

Support level for attributes

f	full
p	partial

## 4 General

For the purposes of this ETS, the following terminology shall apply:

**Support level:** for Protocol Data Units (PDUs), parameters and other features:

- 'm' = Supported. Mandatory support as defined in EN 30607-3 [5].
- 'o' = Optionally supported, as defined in EN 30607-3 [5].
- 'c' = Conditionally supported (optional for a basic implementation but mandatory for an implementation claiming full conformance).
- 'x' = eXcluded as defined in EN 30607-3 [5].