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**Odperta arhitektura dokumentov (ODA) – Komunikacijske storitve ODA – 1. del:
Osnovne storitve**

Open Document Architecture (ODA); ODA communication services; Part 1: Basic services

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Foreword

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

This ETS specifies document communication services, based on Open Document Architecture (ODA) documents, to be provided on top of existing base standards or profiles, giving constraints on them and rules on how to use and combine them.

This first Part of the ETS specifies basic services. Complex services, founded on basic services, will be specified in Part 2 to this ETS (currently under development).

ETSI Technical Report (ETR) 081 has been taken into consideration as one of the sources for this ETS. The purpose of ETR 081 was to define the scope and priorities for the initialization of standardization in the area of ODA communication applications.

| Transposition dates | |
|---|-------------------|
| Date of adoption of this ETS: | 17 May 1996 |
| Date of latest announcement of this ETS (doa): | 30 September 1996 |
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1 Scope

The Open Document Architecture (ODA) base standard and associated profiles specify the means to represent and interchange complex documents.

Communication base standards and associated profiles, specifying interchange, remote manipulation and management of documents at the application layer of the Open Systems Interconnection (OSI) reference model, have also been specified, as Document Transfer And Manipulation (DTAM) and Document Filing and Retrieval (DFR).

Standardizing document communication services will help implementors and service providers to extend the use and acceptance of these services in Europe. Furthermore, the standardization of document communication service profiles will facilitate interworking.

This ETS specifies ODA document communication services to be provided on top of existing base standards or profiles, giving constraints on them and rules on how to use and combine them.

This first Part of the ETS specifies basic services, such as storing-and-retrieval or manipulation. Complex services, such as asynchronous document production or joint document presentation, will be founded on basic services, and will be specified in a future ETS. Some of these complex services are introduced in this Part of this ETS, in order to more clearly understand the complex services that could be built on top of the basic ones.

2 Normative references

Part 1 of this ETS incorporates by dated or undated reference, provisions 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 revisions of any of these publications apply to Part 1 of 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 8613-1 (1994) / ITU-T Recommendation T.411 (1993): "Information technology - Open Document Architecture (ODA) and interchange format - Part 1: Introduction and general principles".
- [2] ISO/IEC 8613-2 (1994) / ITU-T Recommendation T.412 (1993): "Information technology - Open Document Architecture (ODA) and interchange format - Part 2: Document structures".
- [3] ISO/IEC 8613-3 (1994) / ITU-T Recommendation T.413 (1994): "Information technology - Open Document Architecture (ODA) and interchange format - Part 3: Abstract interface for the manipulation of ODA documents".
- [4] ISO/IEC 8613-4 (1994) / ITU-T Recommendation T.414 (1993): "Information technology - Open Document Architecture (ODA) and interchange format - Part 4: Document profile".
- [5] ISO/IEC 8613-5 (1994) / ITU-T Recommendation T.415 (1993): "Information technology - Open Document Architecture (ODA) and interchange format - Part 5: Open Document Interchange Format (ODIF)".
- [6] ISO/IEC 8613-6 (1994) / ITU-T Recommendation T.416 (1993): "Information technology - Open Document Architecture (ODA) and interchange format - Part 6: Character content architectures".
- [7] ISO/IEC 8613-7 (1994) / ITU-T Recommendation T.417 (1993): "Information technology - Open Document Architecture (ODA) and interchange format - Part 7: Raster graphics content architectures".
- [8] ISO/IEC 8613-8 (1994) / ITU-T Recommendation T.418 (1993): "Information technology - Open Document Architecture (ODA) and interchange format - Part 8: Geometric graphics content architectures".

- [9] ISO/IEC 8613-12 (1994) / ITU-T Recommendation T.422 (1994): "Information technology - Open Document Architecture (ODA) and interchange format - Part 12: Identification of document fragments".
- [10] ISO/IEC ISP 10610-1 (1993): "Information technology - International standardized profile FOD11 - Open document format: Simple document structure - Character content architecture only - Part 1: Document Application Profile (DAP)".
- [11] ISO/IEC ISP 11181-1 (1993): "Information technology - International standardized profile FOD26 - Open document format: Enhanced document structure - Character, raster graphics and geometric graphics content architectures - Part 1: Document Application Profile (DAP)".
- [12] ISO/IEC ISP 11182-1 (1993): "Information technology - International standardized profile FOD36 - Open document format: Extended document structure - Character, raster graphics and geometric graphics content architectures - Part 1: Document Application Profile (DAP)".
- [13] ISO/IEC 10166-1 (1991): "Information technology - Text and office systems - Document Filing and Retrieval (DFR) - Part 1: Abstract service definition and procedures".
- [14] ISO/IEC 10166-1 (1991) / Cor. 1 and Cor. 2 (1994): "Information technology - Text and office systems - Document Filing and Retrieval (DFR) - Part 1: Abstract service definition and procedures - Technical corrigendum 1 and Technical corrigendum 2".
- [15] ISO/IEC 10166-2 (1991): "Information technology - Text and office systems - Document Filing and Retrieval (DFR) - Part 2: Protocol specification".
- [16] ISO/IEC ISP 12069: "Information technology - International standardized profiles ADFnn - Document Filing and Retrieval - Parts 1 to 3".
<https://standards.iteh.ai/catalog/standards/sist/c2c05e6c-f175-4ec3-81c0-9b4d41111111/iso-12069>
- [17] CCITT Recommendation T.522 (1991): "Communication application profile BT1 for document bulk transfer".
- [18] ITU-T Recommendation T.435 (1994): "Document Transfer And Manipulation (DTAM) - Services and protocols - Abstract service definition and procedures for confirmed document manipulation".
- [19] ITU-T Recommendation T.436 (1994): "Document Transfer And Manipulation (DTAM) - Services and protocols - Protocol specifications for confirmed document manipulation".
- [20] ISO/IEC 10021 (1990): "Information processing systems - Text communication - Message Oriented Text Interchange Systems (MOTIS)".
- [21] ISO/IEC ISP 10611, Parts 1 to 5 (1994): "Information technology - International standardized profiles - Application profiles for Message Handling (MH) - Common messaging - Part 1: MHS service support (AMH1n); Part 2: Specification of ROSE, RTSE, ACSE, presentation and session protocols for use by MHS (AMH1n); Part 3: AMH11 - Message transfer (P1); Part 4: AMH12 - MTS access (P3); Part 5: AMH13 - MS access (P7)".
- [22] ISO/IEC ISP 12062, Parts 1 to 5 (1994): "Information technology - International standardized profiles - Application profiles for Message Handling (MH) - Interpersonal messaging - Part 1: IPM MHS service support; Part 2: AMH21 - IPM content; Part 3: AMH22 - IPM requirements for message transfer (P1); Part 4: AMH23 - IPM requirements for MTS access (P3); Part 5: AMH24 - IPM requirements for enhanced MS access (P7)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this Part of this ETS, all the definitions in the references given in clause 2 above apply. However, in addition, the following definitions, in the context of this ETS, apply:

basic service: A fundamental service which can be a stand-alone service or part of more complex services.

client: A communicating entity requesting services provided by a server.

communication application: All means and procedures to enable remote access, management and manipulation of information by a communicating entity, and to perform the transfer of information and operations between communicating entities. These may include remote access, management and manipulation of document stores, documents inside document stores and document fragments inside documents. A communication application uses communication modules to transfer information and operations.

communicating entity: An entity which performs a communication application with the goal of communicating information and operations to or from a remote communicating entity, using a communication link. A communicating entity may be a human, hardware or software.

communication link: A connection between two communicating entities.

communication module: A standardized set of operations and protocols that belong to the application layer.

complex service: A service which can be founded on basic services, providing an enhanced task of a document communication application.

document: An ODA document. [SIST ETS 300 498-1 E1:2003](https://standards.iteh.ai/catalog/standards/sist/c2c05e6c-f175-4ec3-81c0-140004a07503/sist-300-498-1-e1-2003)

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document store: A storage capacity with well-defined structure intended to contain documents.

full document: A complete document which does not constitute a part of another document.

server: A communicating entity which provides services for other communicating entities. A server may possess and administer a document store.

service: A well-defined task of a document communication application.

set of document fragments: One or more document fragments.

set of full documents: One or more full document.

user: A human communicating entity.

3.2 Abbreviations

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

| | |
|------------|---|
| ACSE | Association Control Service Element |
| ADF | Application profile for DFR |
| AFT | Application profile for FT |
| AMH | Application profile for MHS |
| AOD | Application profile for ODA |
| ASE | Application Service Element |
| ATS | Abstract Test Suite |
| BFT | Binary File Transfer |
| BS | Basic Service |
| BT | Bulk Transfer |
| CAP | Communication Application Profile |
| CCITT | Consultative Committee on International Telegraphy and Telephony |
| DAP | Document Application Profile |
| DFR | Document Filing and Retrieval |
| DM | Document Manipulation |
| DOAM | Distributed Office Applications Model |
| DST | DiSTribution basic service |
| DTAM | Document Transfer And Manipulation |
| DTAM-BT-NM | Document Transfer And Manipulation - Bulk Transfer - Normal Mode |
| DTAM-BT-TM | Document Transfer And Manipulation - Bulk Transfer - Transparent Mode |
| DTAM-DM | Document Transfer And Manipulation - Document Manipulation |
| DTAM-TK | Document Transfer And Manipulation - ToKen interchange |
| ECM | Error Correction Mode |
| EFT | EuroFile Transfer |
| FAX3 | Facsimile group 3 |
| FAX4 | Facsimile group 4 |
| FOD | Interchange Format and representation profile for ODA |
| FODA | Formal specification of ODA |
| FT | File Transfer |
| FTAM | File Transfer, Access and Manipulation |
| IPM | InterPersonal Messaging |
| ISDN | Integrated Services Digital Network |
| ISP | International Standardized Profile |
| ISR | Implementation Support Requirements |
| MHS | Message Handling System |
| MNP | MaNiPulation basic service |
| MPT | Multi-PoinTing basic service |
| MS | Message Store |
| MTS | Message Transfer System |
| N/A | Not Applicable |
| NM | Normal Mode |
| ODA | Open Document Architecture |
| OSI | Open System Interconnection |
| PNT | PoiNTing basic service |
| QoS | Quality of Service |
| ROA | Referenced Object Access |
| ROSE | Remote Operations Service Element |
| RTR | ReTRieval basic service |
| RTSE | Reliable Transfer Service Element |
| SAR | Storing-And-Retrieval basic service |
| SE | Service Element |
| STR | SToRing basic service |
| TC | Technical Committee |
| TE | Terminal Equipment |
| TK | ToKen exchange |
| TKI | ToKen-Interchange basic service |
| TM | Transparent Mode |

4 Introduction to document communication basic services

This ETS specifies services for document communication. Some of them are considered as basic services. More complex services, to be specified in a further ETS, are defined in terms of the basic ones. In this ETS, a methodology for the specification of services is defined (see clause 8). However, it is only applied to basic services (see clause 9), while complex services are only introduced (see clause 5).

Basic services use existing document and communication base standards and profiles.

Two groups of basic services are considered:

- basic services that, apart from being used for specifying complex services, can be implemented as stand-alone services, and then provided to users;
- basic services that can only be used for specifying complex services.

A number is assigned to each Basic Service (BS).

The basic services that belong to the first group are:

- storing (BS 1);
- distribution (BS 2);
- retrieval (BS 3);
- storing-and-retrieval (BS 4);
- manipulation (BS 5).

Storing and distribution basic services apply to full documents only, while retrieval, storing-and-retrieval and manipulation basic services apply to full documents and to document fragments.

The basic services that belong to the second group are:

- pointing (BS 6);
- multi-pointing (BS 7);
- token-interchange (BS 8).

Pointing and multi-pointing basic services only apply to document fragments, while the Token-Interchange basic service (TKI) is independent of documents.

There are some subset relationships between some of the basic services, but a complete hierarchy between them does not exist. The relationships are:

- storing is a subset of distribution;
- storing is a subset of storing-and-retrieval;
- retrieval is a subset of storing-and-retrieval;
- storing-and-retrieval is a subset of manipulation;
- pointing is a subset of multi-pointing.

Basic services are introduced in the following subclauses with a description and some examples. Then, a classification is given in subclause 4.3.