STANDARD

ISO/IEC 9594-7

Seventh edition 2014-03-01

Information technology — Open Systems Interconnection — The Directory —

Part 7:

Selected object classes

Technologies de l'information — Interconnexion de systèmes ouverts (OSI) — L'annuaire

Partie 7: Classes d'objets sélectionnées







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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the SO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 9594-7 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems*, in collaboration with ITU-T. The identical text is published as Rec. ITU-T X.521 (10/2012).

This seventh edition cancels and replaces the sixth edition (ISO/IEC 9594-7:2008), which has been technically revised. It also incorporates the Technical Corrigendum ISO/IEC 9594-7:2008/Cor.1:2012.

ISO/IEC 9594 consists of the following parts, under the general title *Information technology* — *Open Systems Interconnection* — *The Directory*.

- Part 1: Overview of concepts, models and services
- Part 2: Models
- Part 3: Abstract service definition
- Part 4: Procedures for distributed operation
- Part 5: Protocol specifications
- Part 6: Selected attribute types
- Part 7: Selected object classes
- Part 8: Public-key and attribute certificate frameworks
- Part 9: Replication

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Introduction

This Recommendation | International Standard, together with other Recommendations | International Standards, has been produced to facilitate the interconnection of information processing systems to provide directory services. A set of such systems, together with the directory information that they hold, can be viewed as an integrated whole, called the *Directory*. The information held by the Directory, collectively known as the Directory Information Base (DIB), is typically used to facilitate communication between, with or about objects such as application entities, people, terminals, and distribution lists.

The Directory plays a significant role in Open Systems Interconnection, whose aim is to allow, with a minimum of technical agreement outside of the interconnection standards themselves, the interconnection of information processing systems:

- from different manufacturers:
- under different managements;
- of different levels of complexity; and
- of different ages.

This Recommendation | International Standard defines a number of attribute sets and object classes which may be found useful across a range of applications of the Directory.

This Recommendation | International Standard provides the foundation frameworks upon which industry profiles can be defined by other standards groups and industry forums. Many of the features defined as optional in these frameworks may be mandated for use in certain environments through profiles. This seventh edition technically revises and enhances the sixth edition of this Recommendation | International Standard.

This seventh edition specifies versions 1 and 2 of the Directory-protocols.

The first and second editions specified only version 1. Most of the services and protocols specified in this edition are designed to function under version 1. However some enhanced services and protocols, e.g., signed errors, will not function unless all Directory entities involved in the operation have negotiated version 2. Whichever version has been negotiated, differences between the services and between the protocols defined in the six editions, except for those specifically assigned to version 2, are accommodated using the rules of extensibility defined in Rec. ITU-T X.519 | ISO/IEC 9594-5.

Annex A, which is an integral part of this Recommendation | International Standard, provides an ASN.1 module containing all of the type and value definitions which appear in this Recommendation | International Standard.

Annex B, which is not an integral part of this Recommendation | International Standard, provides some common naming and structure rules which may or may not be used by administrative authorities.

Annex C, which is not an integral part of this Recommendation | International Standard, lists the amendments and defect reports that have been incorporated to form this edition of this Recommendation | International Standard.

INTERNATIONAL STANDARD RECOMMENDATION ITU-T

Information technology – Open Systems Interconnection – The Directory: Selected object classes

SECTION 1 - GENERAL

1 Scope

This Recommendation | International Standard defines a number of object classes and name forms which may be found useful across a range of applications of the Directory. The definition of an object class involves listing a number of attribute types which are relevant to objects of that class. The definition of a name form involves naming the object class to which it applies and listing the attributes to be used in forming names for objects of that class. These definitions are used by the administrative authority which is responsible for the management of the directory information.

Any administrative authority can define its own object classes or subclasses and name forms for any purpose.

NOTE 1 – Those definitions may or may not use the notation specified in Rec. ITU-7 X:501 ISO/IEC 9594-2.

NOTE 2 – It is recommended that an object class defined in this Recommendation | International Standard, of a subclass derived from one, or a name form defined in this Recommendation | International Standard, be used in preference to the generation of a new one, whenever the semantics is appropriate for the application.

Administrative authorities may support some or all the selected object classes and name forms, and may also add additional ones.

All administrative authorities shall support the object classes which the directory uses for its own purpose (the top, alias and Directory system agent (DSA) object classes).

2 Normative references

The following Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations and Standards are subject to revision, and parties to agreements based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent editions of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunication Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations.

2.1 Identical Recommendations | International Standards

- Recommendation ITU-T X.200 (1994) | ISO/IEC 7498-1:1994, Information technology Open Systems Interconnection – Basic Reference Model: The Basic Model.
- Recommendation ITU-T X.500 (2012) | ISO/IEC 9594-1:2014, Information technology Open Systems Interconnection – The Directory: Overview of concepts, models and services.
- Recommendation ITU-T X.501 (2012) | ISO/IEC 9594-2:2014, Information technology Open Systems Interconnection – The Directory: Models.
- Recommendation ITU-T X.509 (2012) | ISO/IEC 9594-8:2014, Information technology Open Systems Interconnection – The Directory: Public-key and attribute certificate frameworks.
- Recommendation ITU-T X.511 (2012) | ISO/IEC 9594-3:2014, Information technology Open Systems Interconnection – The Directory: Abstract service definition.
- Recommendation ITU-T X.518 (2012) | ISO/IEC 9594-4:2014, Information technology Open Systems Interconnection – The Directory: Procedures for distributed operation.
- Recommendation ITU-T X.519 (2012) | ISO/IEC 9594-5:2014, Information technology Open Systems Interconnection The Directory: Protocol specifications.
- Recommendation ITU-T X.520 (2012) | ISO/IEC 9594-6:2014, Information technology Open Systems Interconnection – The Directory: Selected attribute types.
- Recommendation ITU-T X.525 (2012) | ISO/IEC 9594-9:2014, Information technology Open Systems Interconnection – The Directory: Replication.

ISO/IEC 9594-7:2014 (E)

- Recommendation ITU-T X.668 (2008) | ISO/IEC 9834-9:2008, Information technology Open Systems
 Interconnection Procedures for the operation of OSI Registration Authorities: Registration of object
 identifier arcs for applications and services using tag-based identification.
- Recommendation ITU-T X.680 (2008) | ISO/IEC 8824-1:2008, Information technology Abstract Syntax Notation One (ASN.1): Specification of basic notation.
- Recommendation ITU-T X.681 (2008) | ISO/IEC 8824-2:2008, Information technology Abstract Syntax Notation One (ASN.1): Information object specification.
- Recommendation ITU-T X.682 (2008) | ISO/IEC 8824-3:2008, Information technology Abstract Syntax Notation One (ASN.1): Constraint specification.
- Recommendation ITU-T X.683 (2008) | ISO/IEC 8824-4:2008, Information technology Abstract Syntax Notation One (ASN.1): Parameterization of ASN.1 specifications.

