

# ISO/IEC 9594-5:2008-12 (E)

## Information technology\_ - Open Systems Interconnection\_ - The Directory: Protocol specifications

---

### CONTENTS

Page

Foreword .....	v
Introduction .....	vi
1 Scope .....	1
2 References .....	1
2.1 Normative references .....	1
2.2 Non-normative references .....	2
3 Definitions .....	2
3.1 Basic Directory definitions .....	3
3.2 Distributed Operation Definitions .....	3
3.3 Protocol specification definitions .....	3
4 Abbreviations .....	4
5 Conventions .....	4
6 Common protocol specification .....	5
6.1 Directory associations and operations .....	5
6.2 Specification for Directory operations .....	5
6.3 Directory protocol overview .....	7
6.4 Operation codes .....	8
6.5 Error codes .....	8
6.6 Abstract syntaxes .....	9
7 Directory protocols using the OSI stack .....	9
7.1 OSI-PDUs .....	9
7.2 Directory PDU structure .....	9
7.3 Session PDUs .....	10
7.4 OSI addressing .....	10
7.5 Procedure and sequencing .....	10
7.6 Directory PDU specifications .....	11
8 Directory protocol mapping onto OSI services .....	24
8.1 Abstract syntaxes and transfer syntaxes .....	24
8.2 Application-contexts .....	25
8.3 Session Layer specification .....	26
8.4 Use of transport service .....	32
8.5 OSI Transport Layer on top of TCP .....	33
9 IDM protocol .....	47
9.1 IDM-PDUs .....	47
9.2 Sequencing requirements .....	49
9.3 Protocols .....	49
9.4 Reject reasons .....	50
9.5 Abort reasons .....	50
9.6 Mapping onto TCP/IP .....	51
9.7 Addressing .....	51
9.8 Use of TLS .....	51
10 Directory protocol mapping onto the IDM protocol .....	52
10.1 DAP-IP protocol .....	52
10.2 DSP-IP protocol .....	52
10.3 DISP-IP protocol .....	52
10.4 DOP-IP protocol .....	53

	<i>Page</i>
11	Protocol stack coexistence..... 53
11.1	Coexistence between OSI and IDM stacks ..... 53
11.2	Coexistence in the presence of LDAP ..... 53
11.3	Defining network addresses for Internet Protocol, Version 4 support..... 53
11.4	Definition of NSAP like address for long addressing information ..... 54
12	Versions and the rules for extensibility ..... 55
12.1	DUA to DSA..... 55
12.2	DSA to DSA ..... 56
12.3	Rules of extensibility for NSAP addresses..... 57
12.4	Rules of extensibility for object classes ..... 57
12.5	Rules of extensibility for user attribute types ..... 57
13	Conformance ..... 57
13.1	Conformance by DUAs ..... 57
13.2	Conformance by DSAs..... 58
13.3	Conformance by a shadow supplier ..... 62
13.4	Conformance by a shadow consumer ..... 62
	Annex A – Common protocol specifications in ASN.1 ..... 64
	Annex B – OSI Protocol in ASN.1 ..... 66
	Annex C – Directory OSI Protocols in ASN.1..... 72
	Annex D – IDM Protocol in ASN.1 ..... 75
	Annex E – Directory IDM Protocols in ASN.1..... 78
	Annex F – Directory operational binding types ..... 80
	Annex G – Amendments and corrigenda..... 81