

ISO/IEC 9594-3:2020-11 (E)

Information technology - Open systems interconnection - Part 3: The Directory: Abstract service definition

Contents		Page
1	Scope	1
2	Normative references.....	1
2.1	Identical Recommendations International Standards	1
2.2	Paired Recommendations International Standards equivalent in technical content.....	1
2.3	Additional references	2
3	Definitions	2
3.1	OSI Reference Model security architecture definitions.....	2
3.2	Basic Directory definitions.....	2
3.3	Directory model definitions	2
3.4	Directory information base definitions.....	2
3.5	Directory entry definitions	2
3.6	Name definitions	3
3.7	Distributed operations definitions	3
3.8	Abstract service definitions	3
4	Abbreviations	4
5	Conventions.....	4
6	Overview of the Directory service.....	5
7	Information types and common procedures	5
7.1	Introduction	5
7.2	Information types defined elsewhere	5
7.3	Common arguments	6
7.4	Common results	9
7.5	Service controls	10
7.6	Entry information selection	12
7.7	Entry information	15
7.8	Filter.....	17
7.9	Paged results.....	20
7.10	Security parameters	22
7.11	Common elements of procedure for access control.....	23
7.12	Managing the DSA Information Tree	25
7.13	Procedures for families of entries.....	25
8	Directory authentication	26
8.1	Simple authentication procedure	26
8.2	Password policy	28
9	Bind, Unbind operations, Change Password and Administer Password operations	31
9.1	Directory Bind.....	31
9.2	Directory Unbind	34
10	Directory Read operations	34
10.1	Read	34
10.2	Compare	37
10.3	Abandon.....	40
11	Directory Search operations	40
11.1	List	40
11.2	Search.....	44
12	Directory Modify operations	55
12.1	Add Entry	55

12.2	Remove Entry.....	57
12.3	Modify Entry.....	59
12.4	Modify DN.....	63
12.5	Change Password.....	65
12.6	Administer Password.....	66
13	Operations for LDAP messages.....	66
13.1	LDAP Transport operation.....	67
13.2	Linked LDAP operation.....	69
14	Errors.....	69
14.1	Error precedence.....	69
14.2	Abandoned.....	70
14.3	Abandon Failed.....	70
14.4	Attribute Error.....	71
14.5	Name Error.....	72
14.6	Referral.....	73
14.7	Security Error.....	73
14.8	Service Error.....	74
14.9	Update Error.....	76
15	Analysis of search arguments.....	77
15.1	General check of search filter.....	78
15.2	Check of request-attribute-profiles.....	79
15.3	Check of controls and hierarchy selections.....	80
15.4	Check of matching use.....	81
	Annex A – Abstract Service in ASN.1.....	82
	Annex B – Operational semantics for Basic Access Control.....	98
	Annex C – Examples of searching families of entries.....	111
	C.1 Single family example.....	111
	C.2 Multiple families example.....	112
	Annex D – External ASN.1 module.....	115
	Annex E – Use of protected passwords for Bind operations.....	119
	Annex F – Amendments and corrigenda.....	120