**[MS-ADLS]:**

**Active Directory Lightweight Directory Services Schema**

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**Revision Summary**

| Date | Revision History | Revision Class | Comments |
| --- | --- | --- | --- |
| 2/22/2007 | 0.01 | New | Version 0.01 release |
| 6/1/2007 | 1.0 | Major | Updated and revised the technical content. |
| 7/3/2007 | 1.0.1 | Editorial | Added missing description. |
| 7/20/2007 | 1.0.2 | Editorial | Changed language and formatting in the technical content. |
| 8/10/2007 | 1.0.3 | Editorial | Changed language and formatting in the technical content. |
| 9/28/2007 | 1.0.4 | Editorial | Changed language and formatting in the technical content. |
| 10/23/2007 | 1.0.5 | Editorial | Changed language and formatting in the technical content. |
| 11/30/2007 | 1.0.6 | Editorial | Changed language and formatting in the technical content. |
| 1/25/2008 | 1.0.7 | Editorial | Changed language and formatting in the technical content. |
| 3/14/2008 | 1.0.8 | Editorial | Changed language and formatting in the technical content. |
| 5/16/2008 | 1.0.9 | Editorial | Changed language and formatting in the technical content. |
| 6/20/2008 | 1.0.10 | Editorial | Changed language and formatting in the technical content. |
| 7/25/2008 | 1.1 | Minor | Clarified the meaning of the technical content. |
| 8/29/2008 | 2.0 | Major | Updated and revised the technical content. |
| 10/24/2008 | 3.0 | Major | Updated and revised the technical content. |
| 12/5/2008 | 4.0 | Major | Updated and revised the technical content. |
| 1/16/2009 | 4.0.1 | Editorial | Changed language and formatting in the technical content. |
| 2/27/2009 | 4.0.2 | Editorial | Changed language and formatting in the technical content. |
| 4/10/2009 | 4.0.3 | Editorial | Changed language and formatting in the technical content. |
| 5/22/2009 | 5.0 | Major | Updated and revised the technical content. |
| 7/2/2009 | 6.0 | Major | Updated and revised the technical content. |
| 8/14/2009 | 6.0.1 | Editorial | Changed language and formatting in the technical content. |
| 9/25/2009 | 7.0 | Major | Updated and revised the technical content. |
| 11/6/2009 | 7.0.1 | Editorial | Changed language and formatting in the technical content. |
| 12/18/2009 | 8.0 | Major | Updated and revised the technical content. |
| 1/29/2010 | 9.0 | Major | Updated and revised the technical content. |
| 3/12/2010 | 10.0 | Major | Updated and revised the technical content. |
| 4/23/2010 | 11.0 | Major | Updated and revised the technical content. |
| 6/4/2010 | 12.0 | Major | Updated and revised the technical content. |
| 7/16/2010 | 12.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 8/27/2010 | 13.0 | Major | Updated and revised the technical content. |
| 10/8/2010 | 14.0 | Major | Updated and revised the technical content. |
| 11/19/2010 | 14.1 | Minor | Clarified the meaning of the technical content. |
| 1/7/2011 | 15.0 | Major | Updated and revised the technical content. |
| 2/11/2011 | 15.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 3/25/2011 | 15.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 5/6/2011 | 15.1 | Minor | Clarified the meaning of the technical content. |
| 6/17/2011 | 15.2 | Minor | Clarified the meaning of the technical content. |
| 9/23/2011 | 15.3 | Minor | Clarified the meaning of the technical content. |
| 12/16/2011 | 16.0 | Major | Updated and revised the technical content. |
| 3/30/2012 | 16.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 7/12/2012 | 16.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 10/25/2012 | 16.1 | Minor | Clarified the meaning of the technical content. |
| 1/31/2013 | 16.1 | None | No changes to the meaning, language, or formatting of the technical content. |
| 8/8/2013 | 17.0 | Major | Updated and revised the technical content. |
| 11/14/2013 | 18.0 | Major | Updated and revised the technical content. |
| 2/13/2014 | 18.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 5/15/2014 | 19.0 | Major | Updated and revised the technical content. |
| 6/30/2015 | 19.1 | Minor | Clarified the meaning of the technical content. |
| 10/16/2015 | 19.1 | None | No changes to the meaning, language, or formatting of the technical content. |
| 7/14/2016 | 19.1 | None | No changes to the meaning, language, or formatting of the technical content. |
| 6/1/2017 | 20.0 | Major | Significantly changed the technical content. |
| 9/15/2017 | 21.0 | Major | Significantly changed the technical content. |
| 9/12/2018 | 21.1 | Minor | Clarified the meaning of the technical content. |

Table of Contents

[1 Introduction 13](#_Toc523394992)

[1.1 References 13](#_Toc523394993)

[2 Attributes 15](#_Toc523394994)

[2.1 Attribute accountExpires 15](#_Toc523394995)

[2.2 Attribute adminContextMenu 15](#_Toc523394996)

[2.3 Attribute adminDescription 15](#_Toc523394997)

[2.4 Attribute adminDisplayName 16](#_Toc523394998)

[2.5 Attribute adminMultiselectPropertyPages 16](#_Toc523394999)

[2.6 Attribute adminPropertyPages 16](#_Toc523395000)

[2.7 Attribute allowedAttributes 17](#_Toc523395001)

[2.8 Attribute allowedAttributesEffective 17](#_Toc523395002)

[2.9 Attribute allowedChildClasses 17](#_Toc523395003)

[2.10 Attribute allowedChildClassesEffective 18](#_Toc523395004)

[2.11 Attribute aNR 18](#_Toc523395005)

[2.12 Attribute appliesTo 18](#_Toc523395006)

[2.13 Attribute assistant 19](#_Toc523395007)

[2.14 Attribute attributeCertificateAttribute 19](#_Toc523395008)

[2.15 Attribute attributeDisplayNames 19](#_Toc523395009)

[2.16 Attribute attributeID 20](#_Toc523395010)

[2.17 Attribute attributeSecurityGUID 20](#_Toc523395011)

[2.18 Attribute attributeSyntax 20](#_Toc523395012)

[2.19 Attribute attributeTypes 20](#_Toc523395013)

[2.20 Attribute audio 21](#_Toc523395014)

[2.21 Attribute auxiliaryClass 21](#_Toc523395015)

[2.22 Attribute badPasswordTime 21](#_Toc523395016)

[2.23 Attribute badPwdCount 22](#_Toc523395017)

[2.24 Attribute bridgeheadServerListBL 22](#_Toc523395018)

[2.25 Attribute bridgeheadTransportList 22](#_Toc523395019)

[2.26 Attribute businessCategory 23](#_Toc523395020)

[2.27 Attribute c 23](#_Toc523395021)

[2.28 Attribute canonicalName 23](#_Toc523395022)

[2.29 Attribute carLicense 24](#_Toc523395023)

[2.30 Attribute classDisplayName 24](#_Toc523395024)

[2.31 Attribute cn 24](#_Toc523395025)

[2.32 Attribute co 25](#_Toc523395026)

[2.33 Attribute comment 25](#_Toc523395027)

[2.34 Attribute company 25](#_Toc523395028)

[2.35 Attribute configurationFile 26](#_Toc523395029)

[2.36 Attribute configurationFileGuid 26](#_Toc523395030)

[2.37 Attribute contextMenu 26](#_Toc523395031)

[2.38 Attribute cost 27](#_Toc523395032)

[2.39 Attribute countryCode 27](#_Toc523395033)

[2.40 Attribute createDialog 27](#_Toc523395034)

[2.41 Attribute createTimeStamp 27](#_Toc523395035)

[2.42 Attribute createWizardExt 28](#_Toc523395036)

[2.43 Attribute creationWizard 28](#_Toc523395037)

[2.44 Attribute dc 28](#_Toc523395038)

[2.45 Attribute defaultClassStore 29](#_Toc523395039)

[2.46 Attribute defaultGroup 29](#_Toc523395040)

[2.47 Attribute defaultHidingValue 29](#_Toc523395041)

[2.48 Attribute defaultObjectCategory 30](#_Toc523395042)

[2.49 Attribute defaultSecurityDescriptor 30](#_Toc523395043)

[2.50 Attribute department 30](#_Toc523395044)

[2.51 Attribute departmentNumber 30](#_Toc523395045)

[2.52 Attribute description 31](#_Toc523395046)

[2.53 Attribute desktopProfile 31](#_Toc523395047)

[2.54 Attribute destinationIndicator 31](#_Toc523395048)

[2.55 Attribute directReports 32](#_Toc523395049)

[2.56 Attribute displayName 32](#_Toc523395050)

[2.57 Attribute displayNamePrintable 33](#_Toc523395051)

[2.58 Attribute distinguishedName 33](#_Toc523395052)

[2.59 Attribute dITContentRules 33](#_Toc523395053)

[2.60 Attribute division 34](#_Toc523395054)

[2.61 Attribute dMDLocation 34](#_Toc523395055)

[2.62 Attribute dmdName 34](#_Toc523395056)

[2.63 Attribute dNSHostName 35](#_Toc523395057)

[2.64 Attribute dnsRoot 35](#_Toc523395058)

[2.65 Attribute dSASignature 35](#_Toc523395059)

[2.66 Attribute dSCorePropagationData 36](#_Toc523395060)

[2.67 Attribute dSHeuristics 36](#_Toc523395061)

[2.68 Attribute dSUIAdminMaximum 36](#_Toc523395062)

[2.69 Attribute dSUIAdminNotification 37](#_Toc523395063)

[2.70 Attribute dSUIShellMaximum 37](#_Toc523395064)

[2.71 Attribute dynamicLDAPServer 37](#_Toc523395065)

[2.72 Attribute employeeID 37](#_Toc523395066)

[2.73 Attribute employeeNumber 38](#_Toc523395067)

[2.74 Attribute employeeType 38](#_Toc523395068)

[2.75 Attribute Enabled 38](#_Toc523395069)

[2.76 Attribute enabledConnection 39](#_Toc523395070)

[2.77 Attribute entryTTL 39](#_Toc523395071)

[2.78 Attribute extendedAttributeInfo 39](#_Toc523395072)

[2.79 Attribute extendedCharsAllowed 40](#_Toc523395073)

[2.80 Attribute extendedClassInfo 40](#_Toc523395074)

[2.81 Attribute extensionName 40](#_Toc523395075)

[2.82 Attribute extraColumns 41](#_Toc523395076)

[2.83 Attribute facsimileTelephoneNumber 41](#_Toc523395077)

[2.84 Attribute fromEntry 41](#_Toc523395078)

[2.85 Attribute fromServer 42](#_Toc523395079)

[2.86 Attribute fSMORoleOwner 42](#_Toc523395080)

[2.87 Attribute garbageCollPeriod 42](#_Toc523395081)

[2.88 Attribute generatedConnection 43](#_Toc523395082)

[2.89 Attribute generationQualifier 43](#_Toc523395083)

[2.90 Attribute givenName 43](#_Toc523395084)

[2.91 Attribute governsID 44](#_Toc523395085)

[2.92 Attribute groupType 44](#_Toc523395086)

[2.93 Attribute hasMasterNCs 44](#_Toc523395087)

[2.94 Attribute hasPartialReplicaNCs 45](#_Toc523395088)

[2.95 Attribute homePhone 45](#_Toc523395089)

[2.96 Attribute homePostalAddress 45](#_Toc523395090)

[2.97 Attribute houseIdentifier 46](#_Toc523395091)

[2.98 Attribute iconPath 46](#_Toc523395092)

[2.99 Attribute initials 46](#_Toc523395093)

[2.100 Attribute instanceType 47](#_Toc523395094)

[2.101 Attribute internationalISDNNumber 47](#_Toc523395095)

[2.102 Attribute interSiteTopologyFailover 47](#_Toc523395096)

[2.103 Attribute interSiteTopologyGenerator 48](#_Toc523395097)

[2.104 Attribute interSiteTopologyRenew 48](#_Toc523395098)

[2.105 Attribute invocationId 48](#_Toc523395099)

[2.106 Attribute ipPhone 48](#_Toc523395100)

[2.107 Attribute isCriticalSystemObject 49](#_Toc523395101)

[2.108 Attribute isDefunct 49](#_Toc523395102)

[2.109 Attribute isDeleted 49](#_Toc523395103)

[2.110 Attribute isEphemeral 50](#_Toc523395104)

[2.111 Attribute isMemberOfPartialAttributeSet 50](#_Toc523395105)

[2.112 Attribute isRecycled 50](#_Toc523395106)

[2.113 Attribute isSingleValued 51](#_Toc523395107)

[2.114 Attribute jpegPhoto 51](#_Toc523395108)

[2.115 Attribute keywords 51](#_Toc523395109)

[2.116 Attribute l 52](#_Toc523395110)

[2.117 Attribute labeledURI 52](#_Toc523395111)

[2.118 Attribute lastAgedChange 52](#_Toc523395112)

[2.119 Attribute lastBackupRestorationTime 53](#_Toc523395113)

[2.120 Attribute lastKnownParent 53](#_Toc523395114)

[2.121 Attribute lastLogonTimestamp 53](#_Toc523395115)

[2.122 Attribute lDAPAdminLimits 53](#_Toc523395116)

[2.123 Attribute lDAPDisplayName 54](#_Toc523395117)

[2.124 Attribute lDAPIPDenyList 54](#_Toc523395118)

[2.125 Attribute linkID 54](#_Toc523395119)

[2.126 Attribute localizationDisplayId 55](#_Toc523395120)

[2.127 Attribute location 55](#_Toc523395121)

[2.128 Attribute lockoutTime 55](#_Toc523395122)

[2.129 Attribute mail 56](#_Toc523395123)

[2.130 Attribute mailAddress 56](#_Toc523395124)

[2.131 Attribute managedBy 56](#_Toc523395125)

[2.132 Attribute managedObjects 57](#_Toc523395126)

[2.133 Attribute manager 57](#_Toc523395127)

[2.134 Attribute masteredBy 57](#_Toc523395128)

[2.135 Attribute mayContain 58](#_Toc523395129)

[2.136 Attribute member 58](#_Toc523395130)

[2.137 Attribute memberOf 58](#_Toc523395131)

[2.138 Attribute middleName 59](#_Toc523395132)

[2.139 Attribute mobile 59](#_Toc523395133)

[2.140 Attribute modifyTimeStamp 59](#_Toc523395134)

[2.141 Attribute moveTreeState 60](#_Toc523395135)

[2.142 Attribute mS-DS-ConsistencyChildCount 60](#_Toc523395136)

[2.143 Attribute mS-DS-ConsistencyGuid 60](#_Toc523395137)

[2.144 Attribute mS-DS-ReplicatesNCReason 61](#_Toc523395138)

[2.145 Attribute ms-DS-UserAccountAutoLocked 61](#_Toc523395139)

[2.146 Attribute ms-DS-UserEncryptedTextPasswordAllowed 61](#_Toc523395140)

[2.147 Attribute ms-DS-UserPasswordNotRequired 62](#_Toc523395141)

[2.148 Attribute msDS-AllowedDNSSuffixes 62](#_Toc523395142)

[2.149 Attribute msDS-Approx-Immed-Subordinates 62](#_Toc523395143)

[2.150 Attribute msDS-Auxiliary-Classes 63](#_Toc523395144)

[2.151 Attribute msDS-AzApplicationData 63](#_Toc523395145)

[2.152 Attribute msDS-AzApplicationName 63](#_Toc523395146)

[2.153 Attribute msDS-AzApplicationVersion 64](#_Toc523395147)

[2.154 Attribute msDS-AzBizRule 64](#_Toc523395148)

[2.155 Attribute msDS-AzBizRuleLanguage 64](#_Toc523395149)

[2.156 Attribute msDS-AzClassId 65](#_Toc523395150)

[2.157 Attribute msDS-AzDomainTimeout 65](#_Toc523395151)

[2.158 Attribute msDS-AzGenerateAudits 65](#_Toc523395152)

[2.159 Attribute msDS-AzGenericData 65](#_Toc523395153)

[2.160 Attribute msDS-AzLastImportedBizRulePath 66](#_Toc523395154)

[2.161 Attribute msDS-AzLDAPQuery 66](#_Toc523395155)

[2.162 Attribute msDS-AzMajorVersion 66](#_Toc523395156)

[2.163 Attribute msDS-AzMinorVersion 67](#_Toc523395157)

[2.164 Attribute msDS-AzObjectGuid 67](#_Toc523395158)

[2.165 Attribute msDS-AzOperationID 67](#_Toc523395159)

[2.166 Attribute msDS-AzScopeName 68](#_Toc523395160)

[2.167 Attribute msDS-AzScriptEngineCacheMax 68](#_Toc523395161)

[2.168 Attribute msDS-AzScriptTimeout 68](#_Toc523395162)

[2.169 Attribute msDS-AzTaskIsRoleDefinition 69](#_Toc523395163)

[2.170 Attribute msDS-Behavior-Version 69](#_Toc523395164)

[2.171 Attribute msDS-BridgeHeadServersUsed 69](#_Toc523395165)

[2.172 Attribute msDS-DefaultNamingContext 70](#_Toc523395166)

[2.173 Attribute msDS-DefaultNamingContextBL 70](#_Toc523395167)

[2.174 Attribute msDS-DefaultQuota 70](#_Toc523395168)

[2.175 Attribute msDS-DeletedObjectLifetime 71](#_Toc523395169)

[2.176 Attribute msDS-DisableForInstances 71](#_Toc523395170)

[2.177 Attribute msDS-DisableForInstancesBL 71](#_Toc523395171)

[2.178 Attribute msDS-DnsRootAlias 72](#_Toc523395172)

[2.179 Attribute msDS-EnabledFeature 72](#_Toc523395173)

[2.180 Attribute msDS-EnabledFeatureBL 72](#_Toc523395174)

[2.181 Attribute msDS-Entry-Time-To-Die 73](#_Toc523395175)

[2.182 Attribute msDS-ExecuteScriptPassword 73](#_Toc523395176)

[2.183 Attribute msDS-FilterContainers 73](#_Toc523395177)

[2.184 Attribute msDS-HasDomainNCs 74](#_Toc523395178)

[2.185 Attribute msDS-HasInstantiatedNCs 74](#_Toc523395179)

[2.186 Attribute msDS-hasMasterNCs 74](#_Toc523395180)

[2.187 Attribute msDS-IntId 75](#_Toc523395181)

[2.188 Attribute msds-memberOfTransitive 75](#_Toc523395182)

[2.189 Attribute msds-memberTransitive 75](#_Toc523395183)

[2.190 Attribute msDS-LastKnownRDN 76](#_Toc523395184)

[2.191 Attribute msDS-LocalEffectiveDeletionTime 76](#_Toc523395185)

[2.192 Attribute msDS-LocalEffectiveRecycleTime 76](#_Toc523395186)

[2.193 Attribute msDs-masteredBy 76](#_Toc523395187)

[2.194 Attribute msDS-MembersForAzRole 77](#_Toc523395188)

[2.195 Attribute msDS-MembersForAzRoleBL 77](#_Toc523395189)

[2.196 Attribute msDS-NC-Replica-Locations 77](#_Toc523395190)

[2.197 Attribute msDS-NCReplCursors 78](#_Toc523395191)

[2.198 Attribute msDS-NCReplInboundNeighbors 78](#_Toc523395192)

[2.199 Attribute msDS-NCReplOutboundNeighbors 78](#_Toc523395193)

[2.200 Attribute msDS-Non-Security-Group-Extra-Classes 79](#_Toc523395194)

[2.201 Attribute msDS-NonMembers 79](#_Toc523395195)

[2.202 Attribute msDS-NonMembersBL 79](#_Toc523395196)

[2.203 Attribute msDS-OperationsForAzRole 80](#_Toc523395197)

[2.204 Attribute msDS-OperationsForAzRoleBL 80](#_Toc523395198)

[2.205 Attribute msDS-OperationsForAzTask 80](#_Toc523395199)

[2.206 Attribute msDS-OperationsForAzTaskBL 81](#_Toc523395200)

[2.207 Attribute msDS-OptionalFeatureFlags 81](#_Toc523395201)

[2.208 Attribute msDS-OptionalFeatureGUID 81](#_Toc523395202)

[2.209 Attribute msDS-Other-Settings 82](#_Toc523395203)

[2.210 Attribute msDS-parentdistname 82](#_Toc523395204)

[2.211 Attribute msDS-PortLDAP 82](#_Toc523395205)

[2.212 Attribute msDS-PortSSL 83](#_Toc523395206)

[2.213 Attribute msDS-Preferred-GC-Site 83](#_Toc523395207)

[2.214 Attribute msDS-PrincipalName 83](#_Toc523395208)

[2.215 Attribute msDS-QuotaAmount 84](#_Toc523395209)

[2.216 Attribute msDS-QuotaEffective 84](#_Toc523395210)

[2.217 Attribute msDS-QuotaTrustee 84](#_Toc523395211)

[2.218 Attribute msDS-QuotaUsed 85](#_Toc523395212)

[2.219 Attribute msDS-ReplAttributeMetaData 85](#_Toc523395213)

[2.220 Attribute msDS-ReplAuthenticationMode 85](#_Toc523395214)

[2.221 Attribute msDS-Replication-Notify-First-DSA-Delay 86](#_Toc523395215)

[2.222 Attribute msDS-Replication-Notify-Subsequent-DSA-Delay 86](#_Toc523395216)

[2.223 Attribute msDS-ReplicationEpoch 86](#_Toc523395217)

[2.224 Attribute msDS-ReplValueMetaData 86](#_Toc523395218)

[2.225 Attribute msDS-ReplValueMetaDataExt 87](#_Toc523395219)

[2.226 Attribute msDS-RequiredDomainBehaviorVersion 87](#_Toc523395220)

[2.227 Attribute msDS-RequiredForestBehaviorVersion 87](#_Toc523395221)

[2.228 Attribute msDS-RetiredReplNCSignatures 88](#_Toc523395222)

[2.229 Attribute msDs-Schema-Extensions 88](#_Toc523395223)

[2.230 Attribute msDS-SCPContainer 88](#_Toc523395224)

[2.231 Attribute msDS-SDReferenceDomain 89](#_Toc523395225)

[2.232 Attribute msDS-Security-Group-Extra-Classes 89](#_Toc523395226)

[2.233 Attribute msDS-ServiceAccount 89](#_Toc523395227)

[2.234 Attribute msDS-ServiceAccountBL 90](#_Toc523395228)

[2.235 Attribute msDS-ServiceAccountDNSDomain 90](#_Toc523395229)

[2.236 Attribute msDS-Settings 90](#_Toc523395230)

[2.237 Attribute msDS-TasksForAzRole 91](#_Toc523395231)

[2.238 Attribute msDS-TasksForAzRoleBL 91](#_Toc523395232)

[2.239 Attribute msDS-TasksForAzTask 91](#_Toc523395233)

[2.240 Attribute msDS-TasksForAzTaskBL 92](#_Toc523395234)

[2.241 Attribute msDS-TombstoneQuotaFactor 92](#_Toc523395235)

[2.242 Attribute msDS-TopQuotaUsage 92](#_Toc523395236)

[2.243 Attribute msDS-UpdateScript 93](#_Toc523395237)

[2.244 Attribute msDS-User-Account-Control-Computed 93](#_Toc523395238)

[2.245 Attribute msDS-UserAccountDisabled 93](#_Toc523395239)

[2.246 Attribute msDS-UserDontExpirePassword 93](#_Toc523395240)

[2.247 Attribute msDS-UserPasswordExpired 94](#_Toc523395241)

[2.248 Attribute msDS-USNLastSyncSuccess 94](#_Toc523395242)

[2.249 Attribute mustContain 94](#_Toc523395243)

[2.250 Attribute name 95](#_Toc523395244)

[2.251 Attribute nCName 95](#_Toc523395245)

[2.252 Attribute nETBIOSName 95](#_Toc523395246)

[2.253 Attribute networkAddress 96](#_Toc523395247)

[2.254 Attribute nonIndexedMetadata 96](#_Toc523395248)

[2.255 Attribute notificationList 96](#_Toc523395249)

[2.256 Attribute ntPwdHistory 97](#_Toc523395250)

[2.257 Attribute nTSecurityDescriptor 97](#_Toc523395251)

[2.258 Attribute o 97](#_Toc523395252)

[2.259 Attribute objectCategory 98](#_Toc523395253)

[2.260 Attribute objectClass 98](#_Toc523395254)

[2.261 Attribute objectClassCategory 98](#_Toc523395255)

[2.262 Attribute objectClasses 99](#_Toc523395256)

[2.263 Attribute objectGUID 99](#_Toc523395257)

[2.264 Attribute objectSid 99](#_Toc523395258)

[2.265 Attribute objectVersion 100](#_Toc523395259)

[2.266 Attribute oMObjectClass 100](#_Toc523395260)

[2.267 Attribute oMSyntax 100](#_Toc523395261)

[2.268 Attribute options 101](#_Toc523395262)

[2.269 Attribute otherFacsimileTelephoneNumber 101](#_Toc523395263)

[2.270 Attribute otherHomePhone 101](#_Toc523395264)

[2.271 Attribute otherIpPhone 102](#_Toc523395265)

[2.272 Attribute otherMobile 102](#_Toc523395266)

[2.273 Attribute otherPager 102](#_Toc523395267)

[2.274 Attribute otherTelephone 103](#_Toc523395268)

[2.275 Attribute otherWellKnownObjects 103](#_Toc523395269)

[2.276 Attribute ou 103](#_Toc523395270)

[2.277 Attribute owner 104](#_Toc523395271)

[2.278 Attribute ownerBL 104](#_Toc523395272)

[2.279 Attribute pager 104](#_Toc523395273)

[2.280 Attribute parentGUID 105](#_Toc523395274)

[2.281 Attribute partialAttributeDeletionList 105](#_Toc523395275)

[2.282 Attribute partialAttributeSet 105](#_Toc523395276)

[2.283 Attribute pekList 106](#_Toc523395277)

[2.284 Attribute personalTitle 106](#_Toc523395278)

[2.285 Attribute photo 106](#_Toc523395279)

[2.286 Attribute physicalDeliveryOfficeName 107](#_Toc523395280)

[2.287 Attribute possibleInferiors 107](#_Toc523395281)

[2.288 Attribute possSuperiors 107](#_Toc523395282)

[2.289 Attribute postalAddress 108](#_Toc523395283)

[2.290 Attribute postalCode 108](#_Toc523395284)

[2.291 Attribute postOfficeBox 108](#_Toc523395285)

[2.292 Attribute preferredDeliveryMethod 109](#_Toc523395286)

[2.293 Attribute preferredLanguage 109](#_Toc523395287)

[2.294 Attribute preferredOU 109](#_Toc523395288)

[2.295 Attribute prefixMap 110](#_Toc523395289)

[2.296 Attribute primaryGroupToken 110](#_Toc523395290)

[2.297 Attribute primaryInternationalISDNNumber 110](#_Toc523395291)

[2.298 Attribute primaryTelexNumber 110](#_Toc523395292)

[2.299 Attribute proxiedObjectName 111](#_Toc523395293)

[2.300 Attribute proxyAddresses 111](#_Toc523395294)

[2.301 Attribute pwdLastSet 112](#_Toc523395295)

[2.302 Attribute queryFilter 112](#_Toc523395296)

[2.303 Attribute queryPolicyBL 112](#_Toc523395297)

[2.304 Attribute queryPolicyObject 112](#_Toc523395298)

[2.305 Attribute rangeLower 113](#_Toc523395299)

[2.306 Attribute rangeUpper 113](#_Toc523395300)

[2.307 Attribute rDNAttID 113](#_Toc523395301)

[2.308 Attribute registeredAddress 114](#_Toc523395302)

[2.309 Attribute replInterval 114](#_Toc523395303)

[2.310 Attribute replPropertyMetaData 114](#_Toc523395304)

[2.311 Attribute replTopologyStayOfExecution 115](#_Toc523395305)

[2.312 Attribute replUpToDateVector 115](#_Toc523395306)

[2.313 Attribute repsFrom 115](#_Toc523395307)

[2.314 Attribute repsTo 116](#_Toc523395308)

[2.315 Attribute retiredReplDSASignatures 116](#_Toc523395309)

[2.316 Attribute revision 116](#_Toc523395310)

[2.317 Attribute rightsGuid 117](#_Toc523395311)

[2.318 Attribute roomNumber 117](#_Toc523395312)

[2.319 Attribute rootTrust 117](#_Toc523395313)

[2.320 Attribute schedule 118](#_Toc523395314)

[2.321 Attribute schemaFlagsEx 118](#_Toc523395315)

[2.322 Attribute schemaIDGUID 118](#_Toc523395316)

[2.323 Attribute schemaInfo 119](#_Toc523395317)

[2.324 Attribute schemaUpdate 119](#_Toc523395318)

[2.325 Attribute schemaVersion 119](#_Toc523395319)

[2.326 Attribute scopeFlags 120](#_Toc523395320)

[2.327 Attribute sDRightsEffective 120](#_Toc523395321)

[2.328 Attribute searchFlags 120](#_Toc523395322)

[2.329 Attribute searchGuide 121](#_Toc523395323)

[2.330 Attribute secretary 121](#_Toc523395324)

[2.331 Attribute seeAlso 121](#_Toc523395325)

[2.332 Attribute serialNumber 122](#_Toc523395326)

[2.333 Attribute serverReference 122](#_Toc523395327)

[2.334 Attribute serverReferenceBL 122](#_Toc523395328)

[2.335 Attribute shellContextMenu 123](#_Toc523395329)

[2.336 Attribute shellPropertyPages 123](#_Toc523395330)

[2.337 Attribute showInAdvancedViewOnly 123](#_Toc523395331)

[2.338 Attribute siteLinkList 124](#_Toc523395332)

[2.339 Attribute siteList 124](#_Toc523395333)

[2.340 Attribute siteObject 124](#_Toc523395334)

[2.341 Attribute siteObjectBL 125](#_Toc523395335)

[2.342 Attribute siteServer 125](#_Toc523395336)

[2.343 Attribute sn 125](#_Toc523395337)

[2.344 Attribute sourceObjectGuid 126](#_Toc523395338)

[2.345 Attribute st 126](#_Toc523395339)

[2.346 Attribute street 126](#_Toc523395340)

[2.347 Attribute streetAddress 127](#_Toc523395341)

[2.348 Attribute structuralObjectClass 127](#_Toc523395342)

[2.349 Attribute subClassOf 127](#_Toc523395343)

[2.350 Attribute subRefs 127](#_Toc523395344)

[2.351 Attribute subSchemaSubEntry 128](#_Toc523395345)

[2.352 Attribute superiorDNSRoot 128](#_Toc523395346)

[2.353 Attribute supplementalCredentials 128](#_Toc523395347)

[2.354 Attribute systemAuxiliaryClass 129](#_Toc523395348)

[2.355 Attribute systemFlags 129](#_Toc523395349)

[2.356 Attribute systemMayContain 129](#_Toc523395350)

[2.357 Attribute systemMustContain 130](#_Toc523395351)

[2.358 Attribute systemOnly 130](#_Toc523395352)

[2.359 Attribute systemPossSuperiors 130](#_Toc523395353)

[2.360 Attribute telephoneNumber 131](#_Toc523395354)

[2.361 Attribute teletexTerminalIdentifier 131](#_Toc523395355)

[2.362 Attribute telexNumber 131](#_Toc523395356)

[2.363 Attribute thumbnailLogo 132](#_Toc523395357)

[2.364 Attribute thumbnailPhoto 132](#_Toc523395358)

[2.365 Attribute title 132](#_Toc523395359)

[2.366 Attribute tokenGroups 133](#_Toc523395360)

[2.367 Attribute tombstoneLifetime 133](#_Toc523395361)

[2.368 Attribute transportAddressAttribute 133](#_Toc523395362)

[2.369 Attribute transportDLLName 134](#_Toc523395363)

[2.370 Attribute transportType 134](#_Toc523395364)

[2.371 Attribute treatAsLeaf 134](#_Toc523395365)

[2.372 Attribute trustParent 135](#_Toc523395366)

[2.373 Attribute uid 135](#_Toc523395367)

[2.374 Attribute unicodePwd 135](#_Toc523395368)

[2.375 Attribute uPNSuffixes 136](#_Toc523395369)

[2.376 Attribute url 136](#_Toc523395370)

[2.377 Attribute userCertificate 136](#_Toc523395371)

[2.378 Attribute userParameters 137](#_Toc523395372)

[2.379 Attribute userPassword 137](#_Toc523395373)

[2.380 Attribute userPKCS12 137](#_Toc523395374)

[2.381 Attribute userPrincipalName 138](#_Toc523395375)

[2.382 Attribute userSMIMECertificate 138](#_Toc523395376)

[2.383 Attribute uSNChanged 138](#_Toc523395377)

[2.384 Attribute uSNCreated 139](#_Toc523395378)

[2.385 Attribute uSNDSALastObjRemoved 139](#_Toc523395379)

[2.386 Attribute USNIntersite 139](#_Toc523395380)

[2.387 Attribute uSNLastObjRem 140](#_Toc523395381)

[2.388 Attribute uSNSource 140](#_Toc523395382)

[2.389 Attribute validAccesses 140](#_Toc523395383)

[2.390 Attribute wbemPath 141](#_Toc523395384)

[2.391 Attribute wellKnownObjects 141](#_Toc523395385)

[2.392 Attribute whenChanged 141](#_Toc523395386)

[2.393 Attribute whenCreated 142](#_Toc523395387)

[2.394 Attribute wWWHomePage 142](#_Toc523395388)

[2.395 Attribute x121Address 142](#_Toc523395389)

[2.396 Attribute x500uniqueIdentifier 143](#_Toc523395390)

[3 Classes 144](#_Toc523395391)

[3.1 Class applicationSettings 144](#_Toc523395392)

[3.2 Class applicationSiteSettings 144](#_Toc523395393)

[3.3 Class attributeSchema 144](#_Toc523395394)

[3.4 Class classSchema 145](#_Toc523395395)

[3.5 Class configuration 145](#_Toc523395396)

[3.6 Class container 146](#_Toc523395397)

[3.7 Class controlAccessRight 146](#_Toc523395398)

[3.8 Class country 146](#_Toc523395399)

[3.9 Class crossRef 147](#_Toc523395400)

[3.10 Class crossRefContainer 147](#_Toc523395401)

[3.11 Class displaySpecifier 148](#_Toc523395402)

[3.12 Class dMD 148](#_Toc523395403)

[3.13 Class domain 148](#_Toc523395404)

[3.14 Class domainDNS 149](#_Toc523395405)

[3.15 Class dSUISettings 149](#_Toc523395406)

[3.16 Class dynamicObject 150](#_Toc523395407)

[3.17 Class foreignSecurityPrincipal 150](#_Toc523395408)

[3.18 Class group 150](#_Toc523395409)

[3.19 Class groupOfNames 151](#_Toc523395410)

[3.20 Class inetOrgPerson 151](#_Toc523395411)

[3.21 Class interSiteTransport 152](#_Toc523395412)

[3.22 Class interSiteTransportContainer 152](#_Toc523395413)

[3.23 Class leaf 152](#_Toc523395414)

[3.24 Class locality 153](#_Toc523395415)

[3.25 Class lostAndFound 153](#_Toc523395416)

[3.26 Class msDS-AzAdminManager 153](#_Toc523395417)

[3.27 Class msDS-AzApplication 154](#_Toc523395418)

[3.28 Class msDS-AzOperation 154](#_Toc523395419)

[3.29 Class msDS-AzRole 155](#_Toc523395420)

[3.30 Class msDS-AzScope 155](#_Toc523395421)

[3.31 Class msDS-AzTask 155](#_Toc523395422)

[3.32 Class msDS-BindableObject 156](#_Toc523395423)

[3.33 Class msDS-BindProxy 156](#_Toc523395424)

[3.34 Class msDS-OptionalFeature 157](#_Toc523395425)

[3.35 Class msDS-QuotaContainer 157](#_Toc523395426)

[3.36 Class msDS-QuotaControl 157](#_Toc523395427)

[3.37 Class msDS-ServiceConnectionPointPublicationService 158](#_Toc523395428)

[3.38 Class nTDSConnection 158](#_Toc523395429)

[3.39 Class nTDSDSA 158](#_Toc523395430)

[3.40 Class nTDSService 159](#_Toc523395431)

[3.41 Class nTDSSiteSettings 159](#_Toc523395432)

[3.42 Class organizationalPerson 160](#_Toc523395433)

[3.43 Class organization 160](#_Toc523395434)

[3.44 Class organizationalUnit 161](#_Toc523395435)

[3.45 Class person 161](#_Toc523395436)

[3.46 Class queryPolicy 162](#_Toc523395437)

[3.47 Class securityPrincipal 162](#_Toc523395438)

[3.48 Class server 162](#_Toc523395439)

[3.49 Class serversContainer 163](#_Toc523395440)

[3.50 Class site 163](#_Toc523395441)

[3.51 Class siteLink 163](#_Toc523395442)

[3.52 Class siteLinkBridge 164](#_Toc523395443)

[3.53 Class sitesContainer 164](#_Toc523395444)

[3.54 Class subnet 164](#_Toc523395445)

[3.55 Class subnetContainer 165](#_Toc523395446)

[3.56 Class subSchema 165](#_Toc523395447)

[3.57 Class syncEngineAuxConfiguration 165](#_Toc523395448)

[3.58 Class syncEngineAuxObject 166](#_Toc523395449)

[3.59 Class top 166](#_Toc523395450)

[3.60 Class userProxy 167](#_Toc523395451)

[3.61 Class userProxyFull 167](#_Toc523395452)

[3.62 Class user 168](#_Toc523395453)

[4 Change Tracking 169](#_Toc523395454)

[5 Index 170](#_Toc523395455)

# Introduction

Active Directory Lightweight Directory Services Schema contains a list of the objects that exist in the **Active Directory Lightweight Directory Services (AD LDS)** schema. Active Directory and all associated terms and concepts are described in [[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a).

**Note**: This document is not intended to stand on its own; it is intended to act as an appendix to the Active Directory Technical Specification. For details about the AD LDS schema, see [MS-ADTS] section 3.1.1.2 (Active Directory Schema).

**Note**: The object definitions in this document are also available for download in LDAP Data Interchange Format (LDIF) at the following location: [[MSFT-ADSCHEMA]](https://go.microsoft.com/fwlink/?LinkId=212555).

**Note**: The object definitions in this document contain information about the product in which the objects were first implemented in the AD LDS schema. Unless otherwise specified, objects continue to be available in the AD LDS schema in all subsequent versions of the product according to the list of products in [MS-ADTS] section 1 and according to the information about AD LDS for Windows Client operating systems in [MS-ADTS] section 1.

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**Note** There is a charge to download the specification.

# Attributes

The following sections specify the attributes in the Active Directory Lightweight Directory Services schema.

These sections normatively specify the schema definition of each attribute and version-specific behavior of those schema definitions (such as when the attribute was added to the schema). Additionally, as an aid to the reader some of the sections include informative notes about how the attribute can be used.

**Note**: Lines of text in the attribute definitions that are excessively long have been "folded" in accordance with [[RFC2849]](https://go.microsoft.com/fwlink/?LinkId=90389) Note 2.

## Attribute accountExpires

This attribute specifies the date when an account expires. This value represents the number of 100-nanosecond intervals since January 1, 1601, Coordinated Universal Time (Greenwich Mean Time). A value of 0 or 0x7FFFFFFFFFFFFFFF (9223372036854775807) indicates that the account never expires.

1. cn: Account-Expires
2. ldapDisplayName: accountExpires
3. attributeId: 1.2.840.113556.1.4.159
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf967915-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. attributeSecurityGuid: 4c164200-20c0-11d0-a768-00aa006e0529
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on Active Directory Application Mode (ADAM) and Windows Server 2008 operating system.

## Attribute adminContextMenu

This attribute specifies the order number and globally unique identifier (GUID) of the context menu to be used on administration screens. GUID is defined in [[MS-DTYP]](%5bMS-DTYP%5d.pdf#Section_cca2742956894a16b2b49325d93e4ba2) section 2.3.4.

1. cn: Admin-Context-Menu
2. ldapDisplayName: adminContextMenu
3. attributeId: 1.2.840.113556.1.4.614
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 553fd038-f32e-11d0-b0bc-00c04fd8dca6
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute adminDescription

This attribute specifies the description displayed on administration screens.

1. cn: Admin-Description
2. ldapDisplayName: adminDescription
3. attributeId: 1.2.840.113556.1.2.226
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967919-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 1024
12. attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute adminDisplayName

This attribute specifies the name displayed on administration screens.

1. cn: Admin-Display-Name
2. ldapDisplayName: adminDisplayName
3. attributeId: 1.2.840.113556.1.2.194
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf96791a-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 256
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute adminMultiselectPropertyPages

A multivalued attribute whose values are a number representing the order in which the pages are added and a GUID of a component object model (COM) object that implements multiselect property pages for the Active Directory Users and Computers snap-in.

1. cn: Admin-Multiselect-Property-Pages
2. ldapDisplayName: adminMultiselectPropertyPages
3. attributeId: 1.2.840.113556.1.4.1690
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 18f9b67d-5ac6-4b3b-97db-d0a406afb7ba
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute adminPropertyPages

This attribute specifies the order number and GUID of the property pages for an object to be displayed on Active Directory administration screens. For more information, see the document "Extending the User Interface for Directory Objects" [[MSDN-ExtUserIntDirObj]](https://go.microsoft.com/fwlink/?LinkId=107095).

1. cn: Admin-Property-Pages
2. ldapDisplayName: adminPropertyPages
3. attributeId: 1.2.840.113556.1.4.562
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 52458038-ca6a-11d0-afff-0000f80367c1
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute allowedAttributes

This attribute specifies attributes that are permitted to be assigned to a class.

1. cn: Allowed-Attributes
2. ldapDisplayName: allowedAttributes
3. attributeId: 1.2.840.113556.1.4.913
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: 9a7ad940-ca53-11d1-bbd0-0080c76670c0
8. systemOnly: TRUE
9. searchFlags: 0
10. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
12. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute allowedAttributesEffective

This attribute specifies a list of attributes that can be modified on the object.

1. cn: Allowed-Attributes-Effective
2. ldapDisplayName: allowedAttributesEffective
3. attributeId: 1.2.840.113556.1.4.914
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: 9a7ad941-ca53-11d1-bbd0-0080c76670c0
8. systemOnly: TRUE
9. searchFlags: 0
10. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
12. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute allowedChildClasses

This attribute specifies classes that can be contained by a class.

1. cn: Allowed-Child-Classes
2. ldapDisplayName: allowedChildClasses
3. attributeId: 1.2.840.113556.1.4.911
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: 9a7ad942-ca53-11d1-bbd0-0080c76670c0
8. systemOnly: TRUE
9. searchFlags: 0
10. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
12. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute allowedChildClassesEffective

This attribute specifies a list of classes that can be modified.

1. cn: Allowed-Child-Classes-Effective
2. ldapDisplayName: allowedChildClassesEffective
3. attributeId: 1.2.840.113556.1.4.912
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: 9a7ad943-ca53-11d1-bbd0-0080c76670c0
8. systemOnly: TRUE
9. searchFlags: 0
10. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
12. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute aNR

This attribute specifies whether ambiguous name resolution is to be used when choosing between objects.

1. cn: ANR
2. ldapDisplayName: aNR
3. attributeId: 1.2.840.113556.1.4.1208
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 45b01500-c419-11d1-bbc9-0080c76670c0
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
11. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute appliesTo

This attribute contains the list of object classes that the extended right applies to. In the list, an object class is represented by the schemaIDGUID property for its schemaClass object.

1. cn: Applies-To
2. ldapDisplayName: appliesTo
3. attributeId: 1.2.840.113556.1.4.341
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 8297931d-86d3-11d0-afda-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 36
11. rangeUpper: 36
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute assistant

This attribute specifies the distinguished name (DN) of a user's administrative assistant.

1. cn: Assistant
2. ldapDisplayName: assistant
3. attributeId: 1.2.840.113556.1.4.652
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 0296c11c-40da-11d1-a9c0-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: fCOPY
11. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute attributeCertificateAttribute

This attribute specifies a digitally signed or certified identity and set of attributes. It is used to bind authorization information to an identity.

1. cn: attributeCertificateAttribute
2. ldapDisplayName: attributeCertificateAttribute
3. attributeId: 2.5.4.58
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: fa4693bb-7bc2-4cb9-81a8-c99c43b7905e
8. systemOnly: FALSE
9. searchFlags: 0

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute attributeDisplayNames

This attribute specifies the name to be displayed for this object.

1. cn: Attribute-Display-Names
2. ldapDisplayName: attributeDisplayNames
3. attributeId: 1.2.840.113556.1.4.748
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: cb843f80-48d9-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute attributeID

This attribute specifies the unique X.500 object identifier (OID) that identifies an attribute. For more information, see [[X500]](https://go.microsoft.com/fwlink/?LinkId=90589).

1. cn: Attribute-ID
2. ldapDisplayName: attributeID
3. attributeId: 1.2.840.113556.1.2.30
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: TRUE
7. schemaIdGuid: bf967922-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute attributeSecurityGUID

This attribute specifies the GUID to be used to apply security credentials to a set of objects.

1. cn: Attribute-Security-GUID
2. ldapDisplayName: attributeSecurityGUID
3. attributeId: 1.2.840.113556.1.4.149
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: bf967924-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 16
11. rangeUpper: 16
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute attributeSyntax

This attribute specifies the OID for the syntax for this attribute.

1. cn: Attribute-Syntax
2. ldapDisplayName: attributeSyntax
3. attributeId: 1.2.840.113556.1.2.32
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: TRUE
7. schemaIdGuid: bf967925-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute attributeTypes

This attribute specifies a multivalued property containing strings that represent each attribute in the schema.

1. cn: Attribute-Types
2. ldapDisplayName: attributeTypes
3. attributeId: 2.5.21.5
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 9a7ad944-ca53-11d1-bbd0-0080c76670c0
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
11. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute audio

This attribute allows the storing of sounds in Active Directory.

1. cn: audio
2. ldapDisplayName: audio
3. attributeId: 0.9.2342.19200300.100.1.55
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: d0e1d224-e1a0-42ce-a2da-793ba5244f35
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 250000
11. showInAdvancedViewOnly: FALSE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute auxiliaryClass

This attribute specifies the list of auxiliary classes to be associated with this class.

1. cn: Auxiliary-Class
2. ldapDisplayName: auxiliaryClass
3. attributeId: 1.2.840.113556.1.2.351
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: bf96792c-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute badPasswordTime

This attribute specifies the last time and date that an attempt to log on to this account was made using an invalid password. This value is stored as a large integer that represents the number of 100-nanosecond intervals since January 1, 1601 (UTC). A value of zero means that the last "bad password time" is unknown.

1. cn: Bad-Password-Time
2. ldapDisplayName: badPasswordTime
3. attributeId: 1.2.840.113556.1.4.49
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf96792d-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute badPwdCount

This attribute specifies the number of times the user tried to log on to the account by using an incorrect password. A value of 0 indicates that the value is unknown.

1. cn: Bad-Pwd-Count
2. ldapDisplayName: badPwdCount
3. attributeId: 1.2.840.113556.1.4.12
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf96792e-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. attributeSecurityGuid: 5f202010-79a5-11d0-9020-00c04fc2d4cf
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute bridgeheadServerListBL

This attribute is the back link attribute of bridgeheadServerList and contains the list of servers that are bridgeheads for replication.

1. cn: Bridgehead-Server-List-BL
2. ldapDisplayName: bridgeheadServerListBL
3. attributeId: 1.2.840.113556.1.4.820
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: d50c2cdb-8951-11d1-aebc-0000f80367c1
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 99
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute bridgeheadTransportList

This attribute specifies transports for which this server is a bridgehead.

1. cn: Bridgehead-Transport-List
2. ldapDisplayName: bridgeheadTransportList
3. attributeId: 1.2.840.113556.1.4.819
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: d50c2cda-8951-11d1-aebc-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 98
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute businessCategory

This attribute specifies descriptive text on an organizational unit.

1. cn: Business-Category
2. ldapDisplayName: businessCategory
3. attributeId: 2.5.4.15
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: bf967931-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 128
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute c

This attribute specifies the country/region in the address of the user. The country/region is represented as the two-character country code based on ISO-3166.

1. cn: Country-Name
2. ldapDisplayName: c
3. attributeId: 2.5.4.6
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967945-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. rangeLower: 1
11. rangeUpper: 3
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
15. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute canonicalName

This attribute specifies the name of the object in canonical format. "myserver2.fabrikam.com/users/jeffsmith" is an example of a DN in canonical format.

This is a constructed attribute. The results returned are identical to those returned by the following Active Directory function: DsCrackNames(NULL, DS\_NAME\_FLAG\_SYNTACTICAL\_ONLY, DS\_FQDN\_1779\_NAME, DS\_CANONICAL\_NAME, ...).

1. cn: Canonical-Name
2. ldapDisplayName: canonicalName
3. attributeId: 1.2.840.113556.1.4.916
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 9a7ad945-ca53-11d1-bbd0-0080c76670c0
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
11. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute carLicense

This attribute specifies the vehicle license or registration plate.

1. cn: carLicense
2. ldapDisplayName: carLicense
3. attributeId: 2.16.840.1.113730.3.1.1
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: d4159c92-957d-4a87-8a67-8d2934e01649
8. systemOnly: FALSE
9. searchFlags: 0
10. showInAdvancedViewOnly: FALSE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute classDisplayName

This attribute specifies the object name to be displayed on dialogs.

1. cn: Class-Display-Name
2. ldapDisplayName: classDisplayName
3. attributeId: 1.2.840.113556.1.4.610
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 548e1c22-dea6-11d0-b010-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute cn

This attribute specifies the name that represents an object. This attribute is used to perform searches.

1. cn: Common-Name
2. ldapDisplayName: cn
3. attributeId: 2.5.4.3
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf96793f-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
15. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute co

This attribute specifies the country/region in which the user is located.

1. cn: Text-Country
2. ldapDisplayName: co
3. attributeId: 1.2.840.113556.1.2.131
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: f0f8ffa7-1191-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. rangeLower: 1
11. rangeUpper: 128
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute comment

This attribute specifies the user's comments.

1. cn: User-Comment
2. ldapDisplayName: comment
3. attributeId: 1.2.840.113556.1.4.156
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a6a-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute company

This attribute specifies the user's company name.

1. cn: Company
2. ldapDisplayName: company
3. attributeId: 1.2.840.113556.1.2.146
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: f0f8ff88-1191-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute configurationFile

ms-DS-Configuration-File

1. cn: ms-DS-Configuration-File
2. ldapDisplayName: configurationFile
3. attributeId: 1.2.840.113556.1.4.1889
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. searchFlags: fATTINDEX

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute configurationFileGuid

ms-DS-Configuration-File-Guid

1. cn: ms-DS-Configuration-File-Guid
2. ldapDisplayName: configurationFileGuid
3. attributeId: 1.2.840.113556.1.4.1886
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. searchFlags: fATTINDEX

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute contextMenu

This attribute specifies the order number and GUID of the context menu to be used for an object.

1. cn: Context-Menu
2. ldapDisplayName: contextMenu
3. attributeId: 1.2.840.113556.1.4.499
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 4d8601ee-ac85-11d0-afe3-00c04fd930c9
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute cost

This attribute contains the relative cost for routing messages through a particular site connector.

1. cn: Cost
2. ldapDisplayName: cost
3. attributeId: 1.2.840.113556.1.2.135
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf967944-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute countryCode

This attribute specifies the country code for the user's language of choice.

1. cn: Country-Code
2. ldapDisplayName: countryCode
3. attributeId: 1.2.840.113556.1.4.25
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 5fd42471-1262-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. rangeLower: 0
11. rangeUpper: 65535
12. attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute createDialog

This attribute specifies the GUID of a dialog that is used for creating an associated object.

1. cn: Create-Dialog
2. ldapDisplayName: createDialog
3. attributeId: 1.2.840.113556.1.4.810
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 2b09958a-8931-11d1-aebc-0000f80367c1
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute createTimeStamp

This attribute specifies the date when this object was created. This value is replicated.

1. cn: Create-Time-Stamp
2. ldapDisplayName: createTimeStamp
3. attributeId: 2.5.18.1
4. attributeSyntax: 2.5.5.11
5. omSyntax: 24
6. isSingleValued: TRUE
7. schemaIdGuid: 2df90d73-009f-11d2-aa4c-00c04fd7d83a
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
11. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute createWizardExt

This attribute specifies the GUID of the wizard extensions for creating an associated object.

1. cn: Create-Wizard-Ext
2. ldapDisplayName: createWizardExt
3. attributeId: 1.2.840.113556.1.4.812
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 2b09958b-8931-11d1-aebc-0000f80367c1
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute creationWizard

This attribute specifies the wizard to activate when creating objects of this class.

1. cn: Creation-Wizard
2. ldapDisplayName: creationWizard
3. attributeId: 1.2.840.113556.1.4.498
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 4d8601ed-ac85-11d0-afe3-00c04fd930c9
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute dc

This attribute specifies the naming attribute for domain and DNS objects. This attribute is usually displayed as dc=DomainName.

1. cn: Domain-Component
2. ldapDisplayName: dc
3. attributeId: 0.9.2342.19200300.100.1.25
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 19195a55-6da0-11d0-afd3-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 255
12. isMemberOfPartialAttributeSet: TRUE
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
14. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute defaultClassStore

This attribute specifies the default class store for a given user.

1. cn: Default-Class-Store
2. ldapDisplayName: defaultClassStore
3. attributeId: 1.2.840.113556.1.4.213
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: bf967948-0de6-11d0-a285-00aa003049e2
9. systemOnly: FALSE
10. searchFlags: 0

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute defaultGroup

This attribute specifies the group to which this object is assigned when it is created.

1. cn: Default-Group
2. ldapDisplayName: defaultGroup
3. attributeId: 1.2.840.113556.1.4.480
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 720bc4e2-a54a-11d0-afdf-00c04fd930c9
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute defaultHidingValue

This attribute specifies a Boolean value that specifies the default setting of the showInAdvancedViewOnly property of new instances of this class.

1. cn: Default-Hiding-Value
2. ldapDisplayName: defaultHidingValue
3. attributeId: 1.2.840.113556.1.4.518
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: b7b13116-b82e-11d0-afee-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute defaultObjectCategory

This attribute specifies the object category to use for an object if one is not specified.

1. cn: Default-Object-Category
2. ldapDisplayName: defaultObjectCategory
3. attributeId: 1.2.840.113556.1.4.783
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 26d97367-6070-11d1-a9c6-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute defaultSecurityDescriptor

This attribute specifies the security descriptor to be assigned to the object when it is first created.

1. cn: Default-Security-Descriptor
2. ldapDisplayName: defaultSecurityDescriptor
3. attributeId: 1.2.840.113556.1.4.224
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 807a6d30-1669-11d0-a064-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 32767
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute department

This attribute contains the name for the department in which the user works.

1. cn: Department
2. ldapDisplayName: department
3. attributeId: 1.2.840.113556.1.2.141
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf96794f-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute departmentNumber

This attribute identifies a department within an organization.

1. cn: departmentNumber
2. ldapDisplayName: departmentNumber
3. attributeId: 2.16.840.1.113730.3.1.2
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: be9ef6ee-cbc7-4f22-b27b-96967e7ee585
8. systemOnly: FALSE
9. searchFlags: 0
10. showInAdvancedViewOnly: FALSE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute description

This attribute contains the description to display for an object. This value is treated as single-valued by the Active Directory system.

1. cn: Description
2. ldapDisplayName: description
3. attributeId: 2.5.4.13
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: bf967950-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 1024
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute desktopProfile

This attribute specifies the location of the desktop profile for a user or group of users.

1. cn: Desktop-Profile
2. ldapDisplayName: desktopProfile
3. attributeId: 1.2.840.113556.1.4.346
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: eea65906-8ac6-11d0-afda-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute destinationIndicator

This attribute is part of the X.500 specification [[X500]](https://go.microsoft.com/fwlink/?LinkId=90589).

1. cn: Destination-Indicator
2. ldapDisplayName: destinationIndicator
3. attributeId: 2.5.4.27
4. attributeSyntax: 2.5.5.5
5. omSyntax: 19
6. isSingleValued: FALSE
7. schemaIdGuid: bf967951-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 128
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute directReports

This attribute contains the list of users that directly report to the user. The users that are listed as reports are those that have the property manager property set to this user. Each item in the list is a linked reference to the object that represents the user.

1. cn: Reports
2. ldapDisplayName: directReports
3. attributeId: 1.2.840.113556.1.2.436
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: bf967a1c-0de6-11d0-a285-00aa003049e2
9. systemOnly: TRUE
10. searchFlags: 0
11. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
12. linkID: 43
13. systemFlags: FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute displayName

This attribute specifies the display name for an object. This attribute is usually the combination of the user's first name, middle initial, and last name.

1. cn: Display-Name
2. ldapDisplayName: displayName
3. attributeId: 1.2.840.113556.1.2.13
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967953-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fANR | fATTINDEX
10. rangeLower: 0
11. rangeUpper: 256
12. attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute displayNamePrintable

This attribute specifies the printable display name for an object. The printable display name is usually the combination of the user's first name, middle initial, and last name.

1. cn: Display-Name-Printable
2. ldapDisplayName: displayNamePrintable
3. attributeId: 1.2.840.113556.1.2.353
4. attributeSyntax: 2.5.5.5
5. omSyntax: 19
6. isSingleValued: TRUE
7. schemaIdGuid: bf967954-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. rangeLower: 1
10. rangeUpper: 256
11. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
12. isMemberOfPartialAttributeSet: TRUE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute distinguishedName

This attribute is the same as the DN for an object.

1. cn: Obj-Dist-Name
2. ldapDisplayName: distinguishedName
3. attributeId: 2.5.4.49
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: bf9679e4-0de6-11d0-a285-00aa003049e2
9. systemOnly: TRUE
10. searchFlags: fPRESERVEONDELETE
11. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
12. isMemberOfPartialAttributeSet: TRUE
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
14. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute dITContentRules

This attribute specifies the permissible content of entries of a particular structural object class via the identification of an optional set of auxiliary object classes, mandatory, optional, and precluded attributes. Collective attributes are included in DIT-Content-Rules, as specified in [[RFC2251]](https://go.microsoft.com/fwlink/?LinkId=90325) section 3.2.1.

1. cn: DIT-Content-Rules
2. ldapDisplayName: dITContentRules
3. attributeId: 2.5.21.2
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 9a7ad946-ca53-11d1-bbd0-0080c76670c0
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
11. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute division

This attribute specifies the user's division.

1. cn: Division
2. ldapDisplayName: division
3. attributeId: 1.2.840.113556.1.4.261
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: fe6136a0-2073-11d0-a9c2-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. rangeLower: 0
11. rangeUpper: 256
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute dMDLocation

This attribute specifies the DN that identifies the schema partition.

1. cn: DMD-Location
2. ldapDisplayName: dMDLocation
3. attributeId: 1.2.840.113556.1.2.36
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: f0f8ff8b-1191-11d0-a060-00aa006c33ed
9. systemOnly: TRUE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute dmdName

This attribute specifies a name that is used to identify the schema partition.

1. cn: DMD-Name
2. ldapDisplayName: dmdName
3. attributeId: 1.2.840.113556.1.2.598
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 167757b9-47f3-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 1024
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute dNSHostName

This attribute specifies the name of the computer as it is registered in DNS.

1. cn: DNS-Host-Name
2. ldapDisplayName: dNSHostName
3. attributeId: 1.2.840.113556.1.4.619
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 72e39547-7b18-11d1-adef-00c04fd8d5cd
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 2048
12. attributeSecurityGuid: 72e39547-7b18-11d1-adef-00c04fd8d5cd
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute dnsRoot

This attribute specifies the FQDN (1) ([[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) section 1.1) that is associated with a naming context. This attribute is set on a crossRef object and is used for referral generation.

When a search is made through an entire domain tree, the search has to be initiated at the Dns-Root object. This attribute can be multivalued, in which case multiple referrals are generated.

1. cn: Dns-Root
2. ldapDisplayName: dnsRoot
3. attributeId: 1.2.840.113556.1.4.28
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: bf967959-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. rangeLower: 1
11. rangeUpper: 255
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute dSASignature

This attribute specifies the DSA-Signature of an object, which is the Invocation-ID of the last directory to modify the object.

1. cn: DSA-Signature
2. ldapDisplayName: dSASignature
3. attributeId: 1.2.840.113556.1.2.74
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 167757bc-47f3-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute dSCorePropagationData

This attribute is for internal use only.

1. cn: DS-Core-Propagation-Data
2. ldapDisplayName: dSCorePropagationData
3. attributeId: 1.2.840.113556.1.4.1357
4. attributeSyntax: 2.5.5.11
5. omSyntax: 24
6. isSingleValued: FALSE
7. schemaIdGuid: d167aa4b-8b08-11d2-9939-0000f87a57d4
8. systemOnly: TRUE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
12. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute dSHeuristics

This attribute contains global settings for the entire forest.

1. cn: DS-Heuristics
2. ldapDisplayName: dSHeuristics
3. attributeId: 1.2.840.113556.1.2.212
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: f0f8ff86-1191-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute dSUIAdminMaximum

This attribute specifies the default maximum number of objects that are shown in a container by the admin UI.

1. cn: DS-UI-Admin-Maximum
2. ldapDisplayName: dSUIAdminMaximum
3. attributeId: 1.2.840.113556.1.4.1344
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: ee8d0ae0-6f91-11d2-9905-0000f87a57d4
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute dSUIAdminNotification

This attribute specifies a list of the GUIDs of COM objects that support a callback interface that DSAdmin calls when an action has occurred on an object through the UI.

1. cn: DS-UI-Admin-Notification
2. ldapDisplayName: dSUIAdminNotification
3. attributeId: 1.2.840.113556.1.4.1343
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: f6ea0a94-6f91-11d2-9905-0000f87a57d4
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute dSUIShellMaximum

This attribute specifies the default maximum number of objects that are shown in a container by the shell UI.

1. cn: DS-UI-Shell-Maximum
2. ldapDisplayName: dSUIShellMaximum
3. attributeId: 1.2.840.113556.1.4.1345
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: fcca766a-6f91-11d2-9905-0000f87a57d4
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute dynamicLDAPServer

This attribute specifies the fully qualified domain name (FQDN) (1) ([[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) section 1.1) of the server handling dynamic properties for this account.

1. cn: Dynamic-LDAP-Server
2. ldapDisplayName: dynamicLDAPServer
3. attributeId: 1.2.840.113556.1.4.537
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 52458021-ca6a-11d0-afff-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute employeeID

This attribute specifies the ID of an employee.

1. cn: Employee-ID
2. ldapDisplayName: employeeID
3. attributeId: 1.2.840.113556.1.4.35
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967962-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 16

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute employeeNumber

This attribute specifies the number assigned to an employee other than the employee ID.

1. cn: Employee-Number
2. ldapDisplayName: employeeNumber
3. attributeId: 1.2.840.113556.1.2.610
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: a8df73ef-c5ea-11d1-bbcb-0080c76670c0
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 512

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute employeeType

This attribute specifies the job category for an employee.

1. cn: Employee-Type
2. ldapDisplayName: employeeType
3. attributeId: 1.2.840.113556.1.2.613
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: a8df73f0-c5ea-11d1-bbcb-0080c76670c0
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. rangeLower: 1
11. rangeUpper: 256

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute Enabled

This attribute is used to signify whether or not a given crossRef is enabled.

1. cn: Enabled
2. ldapDisplayName: Enabled
3. attributeId: 1.2.840.113556.1.2.557
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: a8df73f2-c5ea-11d1-bbcb-0080c76670c0
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute enabledConnection

This attribute indicates whether a connection is available for use.

1. cn: Enabled-Connection
2. ldapDisplayName: enabledConnection
3. attributeId: 1.2.840.113556.1.4.36
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: bf967963-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute entryTTL

This operational attribute is maintained by the server and appears to be present in every dynamic entry. The attribute is not present when the entry does not contain the [dynamicObject](#Section_9ad703499ffe4624aafbe30de8d82b45) object class.

The value of this attribute is the time, in seconds, that the entry continues to exist before disappearing from the directory. In the absence of intervening "refresh" operations, the values returned by reading the attribute in two successive searches are guaranteed to be nonincreasing. The smallest permissible value is 0, indicating that the entry can disappear without warning. The attribute is marked NO-USER-MODIFICATION because it can only be changed by using the refresh operation.

1. cn: Entry-TTL
2. ldapDisplayName: entryTTL
3. attributeId: 1.3.6.1.4.1.1466.101.119.3
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: d213decc-d81a-4384-aac2-dcfcfd631cf8
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 31557600
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute extendedAttributeInfo

This attribute specifies a multivalued property containing strings that represent additional information for each attribute.

1. cn: Extended-Attribute-Info
2. ldapDisplayName: extendedAttributeInfo
3. attributeId: 1.2.840.113556.1.4.909
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 9a7ad947-ca53-11d1-bbd0-0080c76670c0
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
11. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute extendedCharsAllowed

This attribute indicates whether extended characters are allowed in the value of this attribute. Applies only to IA5, Numeric, Printable, and Teletex string attributes.

1. cn: Extended-Chars-Allowed
2. ldapDisplayName: extendedCharsAllowed
3. attributeId: 1.2.840.113556.1.2.380
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: bf967966-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute extendedClassInfo

This attribute specifies a multivalued property containing strings that represent additional information for each class. Each value contains the [governsID](#Section_1c2fcfcf025946deb2cb06b9e32644e6), [lDAPDisplayName](#Section_fc92e718c06c4906a403cee6de4da32b), and [schemaIDGUID](#Section_341f6a45703e4845988d6e606e439b24) of the class.

1. cn: Extended-Class-Info
2. ldapDisplayName: extendedClassInfo
3. attributeId: 1.2.840.113556.1.4.908
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 9a7ad948-ca53-11d1-bbd0-0080c76670c0
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
11. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute extensionName

This attribute specifies the name of a property page that is used to extend the UI of a directory object.

1. cn: Extension-Name
2. ldapDisplayName: extensionName
3. attributeId: 1.2.840.113556.1.2.227
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: bf967972-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. rangeLower: 1
10. rangeUpper: 255

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute extraColumns

This is a multivalued attribute whose values consist of a 5 tuple: (attribute name), (column title), (default visibility (0,1)), (column width (-1 for auto width)), 0 (reserved for future use; has to be zero). This value is used by the Active Directory Users and Computers console.

1. cn: Extra-Columns
2. ldapDisplayName: extraColumns
3. attributeId: 1.2.840.113556.1.4.1687
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: d24e2846-1dd9-4bcf-99d7-a6227cc86da7
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute facsimileTelephoneNumber

This attribute contains the telephone number of the user's business fax machine.

1. cn: Facsimile-Telephone-Number
2. ldapDisplayName: facsimileTelephoneNumber
3. attributeId: 2.5.4.23
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967974-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute fromEntry

This is a constructed attribute that is TRUE if the object is writable and FALSE if it is read-only; for example, a global catalog (GC) replica instance.

1. cn: From-Entry
2. ldapDisplayName: fromEntry
3. attributeId: 1.2.840.113556.1.4.910
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: FALSE
7. schemaIdGuid: 9a7ad949-ca53-11d1-bbd0-0080c76670c0
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
11. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute fromServer

This attribute specifies the distinguished name of the replication source server.

1. cn: From-Server
2. ldapDisplayName: fromServer
3. attributeId: 1.2.840.113556.1.4.40
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: bf967979-0de6-11d0-a285-00aa003049e2
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute fSMORoleOwner

The fSMORoleOwner attribute stores the distinguished name of a DSA object as described in [[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) section 3.1.1.1.11 (FSMO Roles).

1. cn: FSMO-Role-Owner
2. ldapDisplayName: fSMORoleOwner
3. attributeId: 1.2.840.113556.1.4.369
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 66171887-8f3c-11d0-afda-00c04fd930c9
9. systemOnly: FALSE
10. searchFlags: fATTINDEX
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute garbageCollPeriod

This attribute is located on the CN=Directory Service,CN=Windows NT,CN=Services,CN=Configuration,... object. It represents the period of time, in hours, between directory service (DS) garbage collection runs.

1. cn: Garbage-Coll-Period
2. ldapDisplayName: garbageCollPeriod
3. attributeId: 1.2.840.113556.1.2.301
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 5fd424a1-1262-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute generatedConnection

This attribute is TRUE if this connection was created by auto-topology generation.

1. cn: Generated-Connection
2. ldapDisplayName: generatedConnection
3. attributeId: 1.2.840.113556.1.4.41
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: bf96797a-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute generationQualifier

This attribute indicates a person's generation; for example, "Jr." or "II".

1. cn: Generation-Qualifier
2. ldapDisplayName: generationQualifier
3. attributeId: 2.5.4.44
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 16775804-47f3-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute givenName

This attribute contains the given name (first name) of the user.

1. cn: Given-Name
2. ldapDisplayName: givenName
3. attributeId: 2.5.4.42
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: f0f8ff8e-1191-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: fANR | fATTINDEX
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
13. isMemberOfPartialAttributeSet: TRUE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute governsID

This attribute specifies the unique object ID of the class defined by this Class-Schema object.

1. cn: Governs-ID
2. ldapDisplayName: governsID
3. attributeId: 1.2.840.113556.1.2.22
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: TRUE
7. schemaIdGuid: bf96797d-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute groupType

This attribute contains a set of flags that define the type and scope of a group object. For more information about the possible values for this attribute, see the Remarks section of [[MSDN-GroupType]](https://go.microsoft.com/fwlink/?LinkId=90016).

1. cn: Group-Type
2. ldapDisplayName: groupType
3. attributeId: 1.2.840.113556.1.4.750
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 9a9a021e-4a5b-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: fPRESERVEONDELETE | fATTINDEX
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
12. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute hasMasterNCs

This attribute specifies the DN for the naming contexts for the DC. It is a forward link for the [Mastered-By](#Section_e5a78d48bf2c489483d8f3a13742ace8) attribute. This attribute is maintained for backward compatibility; [msDS-hasMasterNCs](#Section_3687926e7f48467e943d4449941bbe3d) is used instead.

1. cn: Has-Master-NCs
2. ldapDisplayName: hasMasterNCs
3. attributeId: 1.2.840.113556.1.2.14
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: bf967982-0de6-11d0-a285-00aa003049e2
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 76
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute hasPartialReplicaNCs

This attribute specifies the sibling to [Has-Master-NCs](#Section_743c6fe938094f37b9e694d84da7b60b). Reflects the DN for all other-domain NCs that have been replicated into a global catalog.

1. cn: Has-Partial-Replica-NCs
2. ldapDisplayName: hasPartialReplicaNCs
3. attributeId: 1.2.840.113556.1.2.15
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: bf967981-0de6-11d0-a285-00aa003049e2
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 74
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute homePhone

This attribute specifies the user's main home phone number.

1. cn: Phone-Home-Primary
2. ldapDisplayName: homePhone
3. attributeId: 0.9.2342.19200300.100.1.20
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: f0f8ffa1-1191-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. isMemberOfPartialAttributeSet: TRUE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute homePostalAddress

This attribute specifies the user's home address.

1. cn: Address-Home
2. ldapDisplayName: homePostalAddress
3. attributeId: 1.2.840.113556.1.2.617
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 16775781-47f3-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 4096
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute houseIdentifier

This attribute specifies a linguistic construct used to identify a particular building; for example, a house number or house name relative to a street, avenue, town, or city.

1. cn: houseIdentifier
2. ldapDisplayName: houseIdentifier
3. attributeId: 2.5.4.51
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: a45398b7-c44a-4eb6-82d3-13c10946dbfe
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 32768

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute iconPath

This attribute specifies the source for loading an icon.

1. cn: Icon-Path
2. ldapDisplayName: iconPath
3. attributeId: 1.2.840.113556.1.4.219
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: f0f8ff83-1191-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. rangeLower: 0
10. rangeUpper: 2048

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute initials

This attribute contains the initials for parts of the user's full name. It can be used as the middle initial in the Windows Address Book.

1. cn: Initials
2. ldapDisplayName: initials
3. attributeId: 2.5.4.43
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: f0f8ff90-1191-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 6
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute instanceType

This attribute specifies a bit field that dictates how the object is instantiated on a particular server. The value of this attribute can differ on different replicas, even if the replicas are in sync.

1. cn: Instance-Type
2. ldapDisplayName: instanceType
3. attributeId: 1.2.840.113556.1.2.1
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf96798c-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
12. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute internationalISDNNumber

This attribute specifies an international ISDN number associated with an object.

1. cn: International-ISDN-Number
2. ldapDisplayName: internationalISDNNumber
3. attributeId: 2.5.4.25
4. attributeSyntax: 2.5.5.6
5. omSyntax: 18
6. isSingleValued: FALSE
7. schemaIdGuid: bf96798d-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 16
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute interSiteTopologyFailover

This attribute indicates how much time has to transpire since the last keep-alive in order for the intersite topology generator to be considered dead.

1. cn: Inter-Site-Topology-Failover
2. ldapDisplayName: interSiteTopologyFailover
3. attributeId: 1.2.840.113556.1.4.1248
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: b7c69e60-2cc7-11d2-854e-00a0c983f608
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute interSiteTopologyGenerator

This attribute is used to support failover for the machine designated as the one that runs Knowledge Consistency Checker intersite topology generation in a given site.

1. cn: Inter-Site-Topology-Generator
2. ldapDisplayName: interSiteTopologyGenerator
3. attributeId: 1.2.840.113556.1.4.1246
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: b7c69e5e-2cc7-11d2-854e-00a0c983f608
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute interSiteTopologyRenew

This attribute indicates how often the intersite topology generator updates the keep-alive message that is sent to DCs contained in the same site.

1. cn: Inter-Site-Topology-Renew
2. ldapDisplayName: interSiteTopologyRenew
3. attributeId: 1.2.840.113556.1.4.1247
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: b7c69e5f-2cc7-11d2-854e-00a0c983f608
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute invocationId

This attribute is used to uniquely identify the specific version of the directory database associated with an AD-LDS instance.

1. cn: Invocation-Id
2. ldapDisplayName: invocationId
3. attributeId: 1.2.840.113556.1.2.115
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: bf96798e-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: fATTINDEX
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute ipPhone

This attribute specifies the TCP/IP address for the phone. Used by telephony.

1. cn: Phone-Ip-Primary
2. ldapDisplayName: ipPhone
3. attributeId: 1.2.840.113556.1.4.721
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 4d146e4a-48d4-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 64
11. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
12. isMemberOfPartialAttributeSet: TRUE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute isCriticalSystemObject

If TRUE, the object hosting this attribute has to be replicated during installation of a new replica.

1. cn: Is-Critical-System-Object
2. ldapDisplayName: isCriticalSystemObject
3. attributeId: 1.2.840.113556.1.4.868
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: 00fbf30d-91fe-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute isDefunct

If TRUE, the class or attribute is no longer usable. Old versions of this object can exist, but new ones cannot be created.

1. cn: Is-Defunct
2. ldapDisplayName: isDefunct
3. attributeId: 1.2.840.113556.1.4.661
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: 28630ebe-41d5-11d1-a9c1-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute isDeleted

If TRUE, this object has been marked for deletion and will be removed from the Active Directory system.

1. cn: Is-Deleted
2. ldapDisplayName: isDeleted
3. attributeId: 1.2.840.113556.1.2.48
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: bf96798f-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
12. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute isEphemeral

1. cn: Is-Ephemeral
2. ldapDisplayName: isEphemeral
3. attributeId: 1.2.840.113556.1.4.1212
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: f4c453f0-c5f1-11d1-bbcb-0080c76670c0
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute isMemberOfPartialAttributeSet

If TRUE, this attribute is replicated to the global catalog.

1. cn: Is-Member-Of-Partial-Attribute-Set
2. ldapDisplayName: isMemberOfPartialAttributeSet
3. attributeId: 1.2.840.113556.1.4.639
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: 19405b9d-3cfa-11d1-a9c0-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute isRecycled

If TRUE, this object has been marked for permanent deletion. Additionally, if the Recycle Bin optional feature is enabled, the value TRUE marks an object that cannot be undeleted. It will be removed from the Active Directory system.

1. cn: Is-Recycled
2. ldapDisplayName: isRecycled
3. attributeId: 1.2.840.113556.1.4.2058
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: 8fb59256-55f1-444b-aacb-f5b482fe3459
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER
11. isMemberOfPartialAttributeSet: TRUE

Version-Specific Behavior: First implemented on Windows Server 2008 R2 operating system.

## Attribute isSingleValued

If TRUE, this attribute can only store one value.

1. cn: Is-Single-Valued
2. ldapDisplayName: isSingleValued
3. attributeId: 1.2.840.113556.1.2.33
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: bf967992-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute jpegPhoto

This attribute is used to store one or more images of a person using the JPEG File Interchange Format [[JFIF]](https://go.microsoft.com/fwlink/?LinkId=89925).

1. cn: jpegPhoto
2. ldapDisplayName: jpegPhoto
3. attributeId: 0.9.2342.19200300.100.1.60
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: bac80572-09c4-4fa9-9ae6-7628d7adbe0e
8. systemOnly: FALSE
9. searchFlags: 0
10. showInAdvancedViewOnly: FALSE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute keywords

This attribute specifies a list of keywords that can be used to locate a given connection point.

1. cn: Keywords
2. ldapDisplayName: keywords
3. attributeId: 1.2.840.113556.1.4.48
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: bf967993-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. rangeLower: 1
11. rangeUpper: 256
12. isMemberOfPartialAttributeSet: TRUE
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute l

This attribute represents the name of a locality, such as a town or city.

1. cn: Locality-Name
2. ldapDisplayName: l
3. attributeId: 2.5.4.7
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679a2-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY | fATTINDEX
10. rangeLower: 1
11. rangeUpper: 128
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
15. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute labeledURI

This attribute specifies a Uniform Resource Identifier (URI) followed by a label. The label is used to describe the resource to which the URI points and is intended as a friendly name fit for human readers.

1. cn: labeledURI
2. ldapDisplayName: labeledURI
3. attributeId: 1.3.6.1.4.1.250.1.57
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: c569bb46-c680-44bc-a273-e6c227d71b45
8. systemOnly: FALSE
9. searchFlags: 0
10. showInAdvancedViewOnly: FALSE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute lastAgedChange

ms-DS-Last-Aged-Change

1. cn: ms-DS-Last-Aged-Change
2. ldapDisplayName: lastAgedChange
3. attributeId: 1.2.840.113556.1.4.1888
4. attributeSyntax: 2.5.5.11
5. omSyntax: 24
6. isSingleValued: FALSE
7. searchFlags: fATTINDEX

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute lastBackupRestorationTime

This attribute specifies the time when the last system restore operation occurred.

1. cn: Last-Backup-Restoration-Time
2. ldapDisplayName: lastBackupRestorationTime
3. attributeId: 1.2.840.113556.1.4.519
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 1fbb0be8-ba63-11d0-afef-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute lastKnownParent

This attribute specifies the DN of the last known parent of an orphaned or deleted object.

1. cn: Last-Known-Parent
2. ldapDisplayName: lastKnownParent
3. attributeId: 1.2.840.113556.1.4.781
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 52ab8670-5709-11d1-a9c6-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute lastLogonTimestamp

This attribute specifies the time at which the user last logged on to the domain. This value is only updated if the user logs on after a week has passed since the last update. This value is replicated.

1. cn: Last-Logon-Timestamp
2. ldapDisplayName: lastLogonTimestamp
3. attributeId: 1.2.840.113556.1.4.1696
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: c0e20a04-0e5a-4ff3-9482-5efeaecd7060
8. systemOnly: TRUE
9. searchFlags: 0
10. attributeSecurityGuid: 5f202010-79a5-11d0-9020-00c04fc2d4cf
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute lDAPAdminLimits

This attribute contains a set of attribute/value pairs that define Lightweight Directory Access Protocol (LDAP) server administrative limits.

1. cn: LDAP-Admin-Limits
2. ldapDisplayName: lDAPAdminLimits
3. attributeId: 1.2.840.113556.1.4.843
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 7359a352-90f7-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute lDAPDisplayName

This attribute specifies the name used by LDAP clients, such as the ADSI LDAP provider, to read and write the attribute by using the LDAP protocol.

1. cn: LDAP-Display-Name
2. ldapDisplayName: lDAPDisplayName
3. attributeId: 1.2.840.113556.1.2.460
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf96799a-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fPRESERVEONDELETE | fATTINDEX
10. rangeLower: 1
11. rangeUpper: 256
12. isMemberOfPartialAttributeSet: TRUE
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute lDAPIPDenyList

This attribute holds a list of binary IP addresses that are denied access to an LDAP server.

1. cn: LDAP-IPDeny-List
2. ldapDisplayName: lDAPIPDenyList
3. attributeId: 1.2.840.113556.1.4.844
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 7359a353-90f7-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute linkID

This attribute specifies an integer that indicates that the attribute is a linked attribute. An even integer is a forward link, and an odd integer is a back link.

1. cn: Link-ID
2. ldapDisplayName: linkID
3. attributeId: 1.2.840.113556.1.2.50
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf96799b-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute localizationDisplayId

This attribute is used to index into the Extrts.mc file to get the localized displayName of the objects for UI purposes.

1. cn: Localization-Display-Id
2. ldapDisplayName: localizationDisplayId
3. attributeId: 1.2.840.113556.1.4.1353
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: a746f0d1-78d0-11d2-9916-0000f87a57d4
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute location

This attribute specifies the user's location, such as an office number.

1. cn: Location
2. ldapDisplayName: location
3. attributeId: 1.2.840.113556.1.4.222
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 09dcb79f-165f-11d0-a064-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. rangeLower: 0
11. rangeUpper: 1024
12. isMemberOfPartialAttributeSet: TRUE
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute lockoutTime

This attribute specifies the date and time (in UTC) that this account was locked out. This value is stored as a large integer that represents the number of 100-nanosecond intervals since January 1, 1601 (UTC). A value of zero means that the account is not currently locked out.

1. cn: Lockout-Time
2. ldapDisplayName: lockoutTime
3. attributeId: 1.2.840.113556.1.4.662
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 28630ebf-41d5-11d1-a9c1-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute mail

This attribute specifies the list of email addresses for a contact.

1. cn: E-mail-Addresses
2. ldapDisplayName: mail
3. attributeId: 0.9.2342.19200300.100.1.3
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967961-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. rangeLower: 0
11. rangeUpper: 256
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
13. isMemberOfPartialAttributeSet: TRUE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute mailAddress

This attribute specifies the generic mail address attribute. It is used "in the box" as an optional attribute of server objects, where it is consumed by mail-based DS replication (if the machines are so configured).

1. cn: SMTP-Mail-Address
2. ldapDisplayName: mailAddress
3. attributeId: 1.2.840.113556.1.4.786
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 26d9736f-6070-11d1-a9c6-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute managedBy

This attribute specifies the DN of the object that is assigned to manage this object.

1. cn: Managed-By
2. ldapDisplayName: managedBy
3. attributeId: 1.2.840.113556.1.4.653
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 0296c120-40da-11d1-a9c0-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 72
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute managedObjects

This attribute contains the list of objects that are managed by the user. The objects listed are those that have the managedBy property set to this user. Each item in the list is a linked reference to the managed object.

1. cn: Managed-Objects
2. ldapDisplayName: managedObjects
3. attributeId: 1.2.840.113556.1.4.654
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 0296c124-40da-11d1-a9c0-0000f80367c1
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 73
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute manager

This attribute contains the DN of the user who is the user's manager. The manager's user object contains a directReports property that contains references to all user objects that have their manager properties set to this DN.

1. cn: Manager
2. ldapDisplayName: manager
3. attributeId: 0.9.2342.19200300.100.1.10
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: bf9679b5-0de6-11d0-a285-00aa003049e2
9. systemOnly: FALSE
10. searchFlags: fCOPY
11. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
12. linkID: 42
13. isMemberOfPartialAttributeSet: TRUE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute masteredBy

This attribute specifies the back link for the [Has-Master-NCs](#Section_743c6fe938094f37b9e694d84da7b60b) attribute. The DN for its NTDS Settings objects.

1. cn: Mastered-By
2. ldapDisplayName: masteredBy
3. attributeId: 1.2.840.113556.1.4.1409
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: e48e64e0-12c9-11d3-9102-00c04fd91ab1
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 77
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute mayContain

This attribute specifies the list of optional attributes for a class.

1. cn: May-Contain
2. ldapDisplayName: mayContain
3. attributeId: 1.2.840.113556.1.2.25
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: bf9679bf-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute member

This attribute specifies the list of users that belong to the group.

1. cn: Member
2. ldapDisplayName: member
3. attributeId: 2.5.4.31
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: bf9679c0-0de6-11d0-a285-00aa003049e2
9. systemOnly: FALSE
10. searchFlags: 0
11. attributeSecurityGuid: bc0ac240-79a9-11d0-9020-00c04fc2d4cf
12. linkID: 2
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
15. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute memberOf

This attribute specifies the DN of the groups to which this object belongs.

1. cn: Is-Member-Of-DL
2. ldapDisplayName: memberOf
3. attributeId: 1.2.840.113556.1.2.102
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: bf967991-0de6-11d0-a285-00aa003049e2
9. systemOnly: TRUE
10. searchFlags: fCOPY
11. attributeSecurityGuid: bc0ac240-79a9-11d0-9020-00c04fc2d4cf
12. linkID: 3
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute middleName

This attribute specifies additional names for a user; for example, middle name, patronymic, matronymic, or others.

1. cn: Other-Name
2. ldapDisplayName: middleName
3. attributeId: 2.16.840.1.113730.3.1.34
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679f2-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 64

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute mobile

This attribute specifies the primary cellular phone number for a user.

1. cn: Phone-Mobile-Primary
2. ldapDisplayName: mobile
3. attributeId: 0.9.2342.19200300.100.1.41
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: f0f8ffa3-1191-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute modifyTimeStamp

This attribute specifies the date when this object was last changed. This value is replicated.

1. cn: Modify-Time-Stamp
2. ldapDisplayName: modifyTimeStamp
3. attributeId: 2.5.18.2
4. attributeSyntax: 2.5.5.11
5. omSyntax: 24
6. isSingleValued: TRUE
7. schemaIdGuid: 9a7ad94a-ca53-11d1-bbd0-0080c76670c0
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
11. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute moveTreeState

This attribute is not necessary for Active Directory Lightweight Directory Services (AD LDS) to function. The protocol does not define a format beyond that required by the schema.

1. cn: Move-Tree-State
2. ldapDisplayName: moveTreeState
3. attributeId: 1.2.840.113556.1.4.1305
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 1f2ac2c8-3b71-11d2-90cc-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute mS-DS-ConsistencyChildCount

This attribute is not necessary for Active Directory to function. The protocol does not define a format beyond that required by the schema.

1. cn: MS-DS-Consistency-Child-Count
2. ldapDisplayName: mS-DS-ConsistencyChildCount
3. attributeId: 1.2.840.113556.1.4.1361
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 178b7bc2-b63a-11d2-90e1-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute mS-DS-ConsistencyGuid

This attribute is not necessary for Active Directory to function. The protocol does not define a format beyond that required by the schema.

1. cn: MS-DS-Consistency-Guid
2. ldapDisplayName: mS-DS-ConsistencyGuid
3. attributeId: 1.2.840.113556.1.4.1360
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 23773dc2-b63a-11d2-90e1-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute mS-DS-ReplicatesNCReason

This is an attribute of an [nTDSConnection](#Section_dc0bebacee8d44a4b27c5a77dd7f8d57) object that indicates why (or whether) the Knowledge Consistency Checker (KCC) concludes that the connection is useful in the replication topology. This attribute is multivalued and has DistName+Binary syntax, where the binary part is an int-size bit field.

1. cn: MS-DS-Replicates-NC-Reason
2. ldapDisplayName: mS-DS-ReplicatesNCReason
3. attributeId: 1.2.840.113556.1.4.1408
4. attributeSyntax: 2.5.5.7
5. omSyntax: 127
6. omObjectClass: 1.2.840.113556.1.1.1.11
7. isSingleValued: FALSE
8. schemaIdGuid: 0ea12b84-08b3-11d3-91bc-0000f87a57d4
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute ms-DS-UserAccountAutoLocked

This attribute specifies a Boolean flag that indicates whether the account that this attribute references has been locked out. (TRUE means locked out.)

1. cn: ms-DS-User-Account-Auto-Locked
2. ldapDisplayName: ms-DS-UserAccountAutoLocked
3. attributeId: 1.2.840.113556.1.4.1857
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: f2dd7bab-1f3b-47cf-89fa-143b56ad0a3d
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute ms-DS-UserEncryptedTextPasswordAllowed

This attribute specifies a Boolean flag that controls whether Active Directory stores the password in reversible encryption format.

1. cn: ms-DS-User-Encrypted-Text-Password-Allowed
2. ldapDisplayName: ms-DS-UserEncryptedTextPasswordAllowed
3. attributeId: 1.2.840.113556.1.4.1856
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: 5a87c7f2-93c5-454c-a8c5-8cb09613292e
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute ms-DS-UserPasswordNotRequired

This attribute specifies a Boolean flag that controls whether a password is required for the account that this attribute references.

1. cn: ms-DS-User-Password-Not-Required
2. ldapDisplayName: ms-DS-UserPasswordNotRequired
3. attributeId: 1.2.840.113556.1.4.1854
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: 8f066172-a25e-4f53-8dcd-0a67d5fb883d
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AllowedDNSSuffixes

This attribute specifies the list of allowed suffixes for the [dNSHostName](#Section_71ffde4b5b5b46239f40cf4c835ceaa2) attribute in computer objects.

1. cn: ms-DS-Allowed-DNS-Suffixes
2. ldapDisplayName: msDS-AllowedDNSSuffixes
3. attributeId: 1.2.840.113556.1.4.1710
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 8469441b-9ac4-4e45-8205-bd219dbf672d
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 2048
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-Approx-Immed-Subordinates

The value returned by this attribute is based on index sizes. This value can be off by +/-10 percent on large containers, and the error is theoretically unbounded, but the use of this attribute is to assist the UI with determining how to display the contents of a container.

1. cn: ms-DS-Approx-Immed-Subordinates
2. ldapDisplayName: msDS-Approx-Immed-Subordinates
3. attributeId: 1.2.840.113556.1.4.1669
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: e185d243-f6ce-4adb-b496-b0c005d7823c
8. systemOnly: TRUE
9. searchFlags: 0
10. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-Auxiliary-Classes

This attribute lists the auxiliary classes that have been dynamically attached to an object. This attribute is not associated with a class. It is automatically populated by the Active Directory system.

1. cn: ms-DS-Auxiliary-Classes
2. ldapDisplayName: msDS-Auxiliary-Classes
3. attributeId: 1.2.840.113556.1.4.1458
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: c4af1073-ee50-4be0-b8c0-89a41fe99abe
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE
10. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzApplicationData

This attribute specifies a string that is used by individual applications to store needed information.

1. cn: ms-DS-Az-Application-Data
2. ldapDisplayName: msDS-AzApplicationData
3. attributeId: 1.2.840.113556.1.4.1819
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 503fc3e8-1cc6-461a-99a3-9eee04f402a7
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzApplicationName

This attribute specifies a string that uniquely identifies an application object.

1. cn: ms-DS-Az-Application-Name
2. ldapDisplayName: msDS-AzApplicationName
3. attributeId: 1.2.840.113556.1.4.1798
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: db5b0728-6208-4876-83b7-95d3e5695275
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 512

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzApplicationVersion

This attribute specifies a version number to indicate that the AzApplication is updated.

1. cn: ms-DS-Az-Application-Version
2. ldapDisplayName: msDS-AzApplicationVersion
3. attributeId: 1.2.840.113556.1.4.1817
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 7184a120-3ac4-47ae-848f-fe0ab20784d4
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzBizRule

This attribute specifies the text of the script implementing the business rule.

1. cn: ms-DS-Az-Biz-Rule
2. ldapDisplayName: msDS-AzBizRule
3. attributeId: 1.2.840.113556.1.4.1801
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 33d41ea8-c0c9-4c92-9494-f104878413fd
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 65536

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzBizRuleLanguage

This attribute specifies the language that the business rule script is in (for example, JScript or Visual Basic Scripting Edition).

1. cn: ms-DS-Az-Biz-Rule-Language
2. ldapDisplayName: msDS-AzBizRuleLanguage
3. attributeId: 1.2.840.113556.1.4.1802
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 52994b56-0e6c-4e07-aa5c-ef9d7f5a0e25
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 64

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzClassId

This attribute specifies a class ID that is required by the AzRoles UI on the AzApplication object.

1. cn: ms-DS-Az-Class-ID
2. ldapDisplayName: msDS-AzClassId
3. attributeId: 1.2.840.113556.1.4.1816
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 013a7277-5c2d-49ef-a7de-b765b36a3f6f
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 40

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzDomainTimeout

This attribute specifies the time (in milliseconds) after a domain is detected to be unreachable and before the DC is tried again.

1. cn: ms-DS-Az-Domain-Timeout
2. ldapDisplayName: msDS-AzDomainTimeout
3. attributeId: 1.2.840.113556.1.4.1795
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 6448f56a-ca70-4e2e-b0af-d20e4ce653d0
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzGenerateAudits

This attribute specifies a Boolean field indicating whether runtime audits need to be turned on (for example, audits for access checks).

1. cn: ms-DS-Az-Generate-Audits
2. ldapDisplayName: msDS-AzGenerateAudits
3. attributeId: 1.2.840.113556.1.4.1805
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: f90abab0-186c-4418-bb85-88447c87222a
8. systemOnly: FALSE
9. searchFlags: 0

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzGenericData

This attribute specifies AzMan-specific generic data.

1. cn: ms-DS-Az-Generic-Data
2. ldapDisplayName: msDS-AzGenericData
3. attributeId: 1.2.840.113556.1.4.1950
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: a283ad81-eaac-448b-af22-6c7099a946e0
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 65536

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzLastImportedBizRulePath

This attribute specifies the last imported business rule path.

1. cn: ms-DS-Az-Last-Imported-Biz-Rule-Path
2. ldapDisplayName: msDS-AzLastImportedBizRulePath
3. attributeId: 1.2.840.113556.1.4.1803
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 665acb5c-bb92-4dbc-8c59-b3638eab09b3
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 65536

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzLDAPQuery

This attribute specifies a string that defines the LDAP query (max length 4096) that determines the membership of a user object to the group.

1. cn: ms-DS-Az-LDAP-Query
2. ldapDisplayName: msDS-AzLDAPQuery
3. attributeId: 1.2.840.113556.1.4.1792
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 5e53368b-fc94-45c8-9d7d-daf31ee7112d
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 4096

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzMajorVersion

This attribute specifies the major version number for AzRoles.

1. cn: ms-DS-Az-Major-Version
2. ldapDisplayName: msDS-AzMajorVersion
3. attributeId: 1.2.840.113556.1.4.1824
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: cfb9adb7-c4b7-4059-9568-1ed9db6b7248
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzMinorVersion

This attribute specifies the minor version number for AzRoles.

1. cn: ms-DS-Az-Minor-Version
2. ldapDisplayName: msDS-AzMinorVersion
3. attributeId: 1.2.840.113556.1.4.1825
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: ee85ed93-b209-4788-8165-e702f51bfbf3
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzObjectGuid

This attribute specifies the unique and portable identifier of AzMan objects.

1. cn: ms-DS-Az-Object-Guid
2. ldapDisplayName: msDS-AzObjectGuid
3. attributeId: 1.2.840.113556.1.4.1949
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 8867b29c-9ccf-4ce2-be30-b67c0d2432c6
8. systemOnly: TRUE
9. searchFlags: fATTINDEX
10. rangeLower: 16
11. rangeUpper: 16

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzOperationID

This attribute specifies the application-specific ID that makes the operation unique to the application.

1. cn: ms-DS-Az-Operation-ID
2. ldapDisplayName: msDS-AzOperationID
3. attributeId: 1.2.840.113556.1.4.1800
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: a5f3b553-5d76-4cbe-ba3f-4312152cab18
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzScopeName

This attribute specifies a string that uniquely identifies a scope object.

1. cn: ms-DS-Az-Scope-Name
2. ldapDisplayName: msDS-AzScopeName
3. attributeId: 1.2.840.113556.1.4.1799
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 515a6b06-2617-4173-8099-d5605df043c6
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 65536

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzScriptEngineCacheMax

This attribute specifies the maximum number of scripts that are cached by the application.

1. cn: ms-DS-Az-Script-Engine-Cache-Max
2. ldapDisplayName: msDS-AzScriptEngineCacheMax
3. attributeId: 1.2.840.113556.1.4.1796
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 2629f66a-1f95-4bf3-a296-8e9d7b9e30c8
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzScriptTimeout

This attribute specifies the maximum time (in milliseconds) to wait for a script to finish auditing a specific policy.

1. cn: ms-DS-Az-Script-Timeout
2. ldapDisplayName: msDS-AzScriptTimeout
3. attributeId: 1.2.840.113556.1.4.1797
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 87d0fb41-2c8b-41f6-b972-11fdfd50d6b0
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-AzTaskIsRoleDefinition

This attribute specifies a Boolean field that indicates whether AzTask is a classic task or a role definition.

1. cn: ms-DS-Az-Task-Is-Role-Definition
2. ldapDisplayName: msDS-AzTaskIsRoleDefinition
3. attributeId: 1.2.840.113556.1.4.1818
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: 7b078544-6c82-4fe9-872f-ff48ad2b2e26
8. systemOnly: FALSE
9. searchFlags: 0

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-Behavior-Version

This attribute is used to track the domain or forest behavior version. It is a monotonically increasing number that is used to enable certain Active Directory features.

1. cn: ms-DS-Behavior-Version
2. ldapDisplayName: msDS-Behavior-Version
3. attributeId: 1.2.840.113556.1.4.1459
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: d31a8757-2447-4545-8081-3bb610cacbf2
8. systemOnly: TRUE
9. searchFlags: 0
10. rangeLower: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-BridgeHeadServersUsed

This attribute specifies a list of bridgehead servers used by the KCC in the previous run.

1. cn: ms-DS-BridgeHead-Servers-Used
2. ldapDisplayName: msDS-BridgeHeadServersUsed
3. attributeId: 1.2.840.113556.1.4.2049
4. attributeSyntax: 2.5.5.7
5. omSyntax: 127
6. omObjectClass: 1.2.840.113556.1.1.1.11
7. linkID: 2160
8. isSingleValued: FALSE
9. showInAdvancedViewOnly: TRUE
10. schemaIdGuid: 3ced1465-7b71-2541-8780-1e1ea6243a82
11. searchFlags: 0
12. systemFlags: FLAG\_ATTR\_NOT\_REPLICATED | FLAG\_ATTR\_IS\_OPERATIONAL |
13. FLAG\_SCHEMA\_BASE\_OBJECT
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: First implemented on Windows Server 2008 R2.

## Attribute msDS-DefaultNamingContext

This attribute specifies the default naming context (partition) for this AD LDS instance.

1. cn: ms-DS-Default-Naming-Context
2. ldapDisplayName: msDS-DefaultNamingContext
3. attributeId: 1.2.840.113556.1.4.1873
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 09278375-bc53-e342-8a03-943043a1b573
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 2044
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-DefaultNamingContextBL

This attribute specifies a backlink reference for the [msDS-DefaultNamingContext](#Section_6628c00d8afe4b058e6cd9b6843df99a) attribute.

1. cn: ms-DS-Default-Naming-Context-BL
2. ldapDisplayName: msDS-DefaultNamingContextBL
3. attributeId: 1.2.840.113556.1.4.1874
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 2a4e57c2-60bc-5040-b463-51e1d82df9a5
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 2045
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-DefaultQuota

This attribute specifies the default quota that will apply to a security principal that creates an object in the NC if no quota specification exists that covers the security principal.

1. cn: ms-DS-Default-Quota
2. ldapDisplayName: msDS-DefaultQuota
3. attributeId: 1.2.840.113556.1.4.1846
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 6818f726-674b-441b-8a3a-f40596374cea
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-DeletedObjectLifetime

If the Recycle Bin optional feature is enabled, this attribute specifies the number of days before a deleted object is converted to a recycled object. If the Recycle Bin optional feature is not enabled, values of this attribute have no meaning or effect.

1. cn: ms-DS-Deleted-Object-Lifetime
2. ldapDisplayName: msDS-DeletedObjectLifetime
3. attributeId: 1.2.840.113556.1.4.2068
4. attributeSyntax: 2.5.5.9
5. omSyntax: 10
6. isSingleValued: TRUE
7. schemaIdGuid: a9b38cb6-189a-4def-8a70-0fcfa158148e
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on Windows Server 2008 R2.

## Attribute msDS-DisableForInstances

This attribute specifies the set of DSA objects, representing AD LDS instances, for which Service Connection Point publication is disabled.

1. cn: ms-DS-Disable-For-Instances
2. ldapDisplayName: msDS-DisableForInstances
3. attributeId: 1.2.840.113556.1.4.1870
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 5f8f45cb-0fb7-fc4f-b44f-66f781aa66dd
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 2042
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-DisableForInstancesBL

This attribute specifies the backlink reference to the ms-DS-Service-Connection-Point-Publication-Service object.

1. cn: ms-DS-Disable-For-Instances-BL
2. ldapDisplayName: msDS-DisableForInstancesBL
3. attributeId: 1.2.840.113556.1.4.1871
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 8f9d31dd-67ea-cd42-9b88-7cddb36c21f4
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 2043
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-DnsRootAlias

This attribute is used to store the domain alias.

1. cn: ms-DS-DnsRootAlias
2. ldapDisplayName: msDS-DnsRootAlias
3. attributeId: 1.2.840.113556.1.4.1719
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 2143acca-eead-4d29-b591-85fa49ce9173
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 255
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-EnabledFeature

This attribute lists the enabled optional features.

1. cn: ms-DS-Enabled-Feature
2. ldapDisplayName: msDS-EnabledFeature
3. attributeId: 1.2.840.113556.1.4.2061
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. linkId: 2168
8. isSingleValued: FALSE
9. schemaIdGuid: 5706aeaf-b940-4fb2-bcfc-5268683ad9fe
10. isMemberOfPartialAttributeSet: TRUE
11. systemOnly: TRUE
12. searchFlags: 0
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on Windows Server 2008 R2.

## Attribute msDS-EnabledFeatureBL

This attribute is the backlink attribute of msDS-EnabledFeature, and it lists the scopes where an optional feature is enabled.

1. cn: ms-DS-Enabled-Feature-BL
2. ldapDisplayName: msDS-EnabledFeatureBL
3. attributeId: 1.2.840.113556.1.4.2069
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. linkId: 2169
8. isSingleValued: FALSE
9. schemaIdGuid: ce5b01bc-17c6-44b8-9dc1-a9668b00901b
10. systemOnly: TRUE
11. searchFlags: 0
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT|FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on Windows Server 2008 R2.

## Attribute msDS-Entry-Time-To-Die

This attribute holds the absolute expiration time of a dynamic object in the directory.

1. cn: ms-DS-Entry-Time-To-Die
2. ldapDisplayName: msDS-Entry-Time-To-Die
3. attributeId: 1.2.840.113556.1.4.1622
4. attributeSyntax: 2.5.5.11
5. omSyntax: 24
6. isSingleValued: TRUE
7. schemaIdGuid: e1e9bad7-c6dd-4101-a843-794cec85b038
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE | fATTINDEX
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_OPERATIONAL

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-ExecuteScriptPassword

This attribute is used during domain rename operation. This value cannot be written to or read from with LDAP.

1. cn: ms-DS-ExecuteScriptPassword
2. ldapDisplayName: msDS-ExecuteScriptPassword
3. attributeId: 1.2.840.113556.1.4.1783
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 9d054a5a-d187-46c1-9d85-42dfc44a56dd
8. systemOnly: TRUE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 64
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-FilterContainers

A multivalued string attribute containing the names of classes that are used to determine which container types are shown by the Active Directory Users and Computers snap-in when filtering.

1. cn: ms-DS-Filter-Containers
2. ldapDisplayName: msDS-FilterContainers
3. attributeId: 1.2.840.113556.1.4.1703
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: fb00dcdf-ac37-483a-9c12-ac53a6603033
8. systemOnly: FALSE
9. rangeLower: 1
10. rangeUpper: 64

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute msDS-HasDomainNCs

This attribute specifies DS replication information that details the domain NCs that are present on a particular server.

1. cn: ms-DS-Has-Domain-NCs
2. ldapDisplayName: msDS-HasDomainNCs
3. attributeId: 1.2.840.113556.1.4.1820
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 6f17e347-a842-4498-b8b3-15e007da4fed
9. systemOnly: TRUE
10. searchFlags: 0
11. rangeLower: 4
12. rangeUpper: 4
13. linkID: 2026
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-HasInstantiatedNCs

This attribute specifies DS replication information that details the state of the NCs that are present on a particular server.

1. cn: ms-DS-Has-Instantiated-NCs
2. ldapDisplayName: msDS-HasInstantiatedNCs
3. attributeId: 1.2.840.113556.1.4.1709
4. attributeSyntax: 2.5.5.7
5. omSyntax: 127
6. omObjectClass: 1.2.840.113556.1.1.1.11
7. isSingleValued: FALSE
8. schemaIdGuid: 11e9a5bc-4517-4049-af9c-51554fb0fc09
9. systemOnly: TRUE
10. searchFlags: 0
11. rangeLower: 4
12. rangeUpper: 4
13. linkID: 2002
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-hasMasterNCs

This attribute specifies a list of the naming contexts contained by a DC.

1. cn: ms-DS-Has-Master-NCs
2. ldapDisplayName: msDS-hasMasterNCs
3. attributeId: 1.2.840.113556.1.4.1836
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: ae2de0e2-59d7-4d47-8d47-ed4dfe4357ad
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 2036
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-IntId

The ms-DS-IntId attribute is for internal use only.

1. cn: ms-DS-IntId
2. ldapDisplayName: msDS-IntId
3. attributeId: 1.2.840.113556.1.4.1716
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bc60096a-1b47-4b30-8877-602c93f56532
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msds-memberOfTransitive

This attribute specifies the set of distinguished names (DNs) in the memberOf attribute on the current object and the DNs from the memberOf attributes of each of the objects specified in the memberOf attribute on the current object.

1. cn: ms-DS-Is-Member-Of-DL-Transitive
2. lDAPDisplayName: msds-memberOfTransitive
3. attributeID: 1.2.840.113556.1.4.2236
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. systemOnly: TRUE
9. searchFlags: fBASEONLY
10. systemFlags: FLAG\_ATTR\_NOT\_REPLICATED | FLAG\_ATTR\_IS\_CONSTRUCTED |
11. FLAG\_ATTR\_IS\_OPERATIONAL | FLAG\_SCHEMA\_BASE\_OBJECT
12. showInAdvancedViewOnly: TRUE

Version-Specific Behavior: First implemented on Windows Server 2012 R2 operating system.

## Attribute msds-memberTransitive

This attribute specifies the set of distinguished names (DNs) in the member attribute on the current object and the DNs from the member attribute of each of the objects specified in the member attribute on the current object.

1. cn: ms-DS-Member-Transitive
2. lDAPDisplayName: msds-memberTransitive
3. attributeID: 1.2.840.113556.1.4.2238
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. systemOnly: TRUE
9. searchFlags: fBASEONLY
10. systemFlags: FLAG\_ATTR\_NOT\_REPLICATED | FLAG\_ATTR\_IS\_CONSTRUCTED |
11. FLAG\_ATTR\_IS\_OPERATIONAL | FLAG\_SCHEMA\_BASE\_OBJECT
12. showInAdvancedViewOnly: TRUE

Version-Specific Behavior: First implemented on Windows Server 2012 R2.

## Attribute msDS-LastKnownRDN

This attribute holds the original RDN of a deleted object.

1. cn: ms-DS-Last-Known-RDN
2. ldapDisplayName: msDS-LastKnownRDN
3. attributeId: 1.2.840.113556.1.4.2067
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 8ab15858-683e-466d-877f-d640e1f9a611
8. systemOnly: TRUE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 255
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on Windows Server 2008 R2.

## Attribute msDS-LocalEffectiveDeletionTime

This attribute stores the deletion time of the object in the local domain controller.

1. cn: ms-DS-Local-Effective-Deletion-Time
2. ldapDisplayName: msDS-LocalEffectiveDeletionTime
3. attributeId: 1.2.840.113556.1.4.2059
4. attributeSyntax: 2.5.5.11
5. omSyntax: 24
6. isSingleValued: TRUE
7. schemaIdGuid: 94f2800c-531f-4aeb-975d-48ac39fd8ca4
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT|FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on Windows Server 2008 R2.

## Attribute msDS-LocalEffectiveRecycleTime

This attribute stores the recycle time of the object in the local domain controller.

1. cn: ms-DS-Local-Effective-Recycle-Time
2. ldapDisplayName: msDS-LocalEffectiveRecycleTime
3. attributeId: 1.2.840.113556.1.4.2060
4. attributeSyntax: 2.5.5.11
5. omSyntax: 24
6. isSingleValued: TRUE
7. schemaIdGuid: 4ad6016b-b0d2-4c9b-93b6-5964b17b968c
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT|FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on Windows Server 2008 R2.

## Attribute msDs-masteredBy

This attribute specifies the backlink for [msDS-hasMasterNCs](#Section_3687926e7f48467e943d4449941bbe3d).

1. cn: ms-DS-Mastered-By
2. ldapDisplayName: msDs-masteredBy
3. attributeId: 1.2.840.113556.1.4.1837
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 60234769-4819-4615-a1b2-49d2f119acb5
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 2037
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-MembersForAzRole

This attribute specifies the list of member application groups or users linked to Az-Role.

1. cn: ms-DS-Members-For-Az-Role
2. ldapDisplayName: msDS-MembersForAzRole
3. attributeId: 1.2.840.113556.1.4.1806
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: cbf7e6cd-85a4-4314-8939-8bfe80597835
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 2016
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-MembersForAzRoleBL

This attribute specifies the backlink from a member application group or user to the Az-Role objects that link to it.

1. cn: ms-DS-Members-For-Az-Role-BL
2. ldapDisplayName: msDS-MembersForAzRoleBL
3. attributeId: 1.2.840.113556.1.4.1807
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: ececcd20-a7e0-4688-9ccf-02ece5e287f5
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 2017
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-NC-Replica-Locations

This attribute specifies a list of servers that are the replica set for the corresponding non-domain naming context.

1. cn: ms-DS-NC-Replica-Locations
2. ldapDisplayName: msDS-NC-Replica-Locations
3. attributeId: 1.2.840.113556.1.4.1661
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 97de9615-b537-46bc-ac0f-10720f3909f3
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 1044
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-NCReplCursors

This attribute specifies a list of past and present replication partners for a particular machine, and how up-to-date that machine is with each of them.

1. cn: ms-DS-NC-Repl-Cursors
2. ldapDisplayName: msDS-NCReplCursors
3. attributeId: 1.2.840.113556.1.4.1704
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 8a167ce4-f9e8-47eb-8d78-f7fe80abb2cc
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-NCReplInboundNeighbors

This attribute specifies replication partners for this partition. This server obtains replication data from these other servers, which act as sources.

1. cn: ms-DS-NC-Repl-Inbound-Neighbors
2. ldapDisplayName: msDS-NCReplInboundNeighbors
3. attributeId: 1.2.840.113556.1.4.1705
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 9edba85a-3e9e-431b-9b1a-a5b6e9eda796
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-NCReplOutboundNeighbors

This attribute specifies replication partners for this partition. This server sends replication data to these other servers, which act as destinations. This server will notify these other servers when new data is available.

1. cn: ms-DS-NC-Repl-Outbound-Neighbors
2. ldapDisplayName: msDS-NCReplOutboundNeighbors
3. attributeId: 1.2.840.113556.1.4.1706
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 855f2ef5-a1c5-4cc4-ba6d-32522848b61f
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-Non-Security-Group-Extra-Classes

This attribute specifies the common names of the nonstandard classes that can be added to a non-security group through the Active Directory Users and Computers snap-in.

1. cn: ms-DS-Non-Security-Group-Extra-Classes
2. ldapDisplayName: msDS-Non-Security-Group-Extra-Classes
3. attributeId: 1.2.840.113556.1.4.1689
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 2de144fc-1f52-486f-bdf4-16fcc3084e54
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute msDS-NonMembers

This attribute serves the same purpose as the **Non-Security-Member** attribute but with scoping rules applied.

1. cn: ms-DS-Non-Members
2. ldapDisplayName: msDS-NonMembers
3. attributeId: 1.2.840.113556.1.4.1793
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: cafcb1de-f23c-46b5-adf7-1e64957bd5db
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 2014
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-NonMembersBL

This attribute specifies the backlink from a non-member group or user to the Az groups that link to it (has the same functionality as Non-Security-Member-BL).

1. cn: ms-DS-Non-Members-BL
2. ldapDisplayName: msDS-NonMembersBL
3. attributeId: 1.2.840.113556.1.4.1794
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 2a8c68fc-3a7a-4e87-8720-fe77c51cbe74
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 2015
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-OperationsForAzRole

This attribute specifies a list of operations linked to Az-Role.

1. cn: ms-DS-Operations-For-Az-Role
2. ldapDisplayName: msDS-OperationsForAzRole
3. attributeId: 1.2.840.113556.1.4.1812
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 93f701be-fa4c-43b6-bc2f-4dbea718ffab
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 2022

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-OperationsForAzRoleBL

This attribute specifies the backlink from Az-Operation to the Az-Role objects that link to it.

1. cn: ms-DS-Operations-For-Az-Role-BL
2. ldapDisplayName: msDS-OperationsForAzRoleBL
3. attributeId: 1.2.840.113556.1.4.1813
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: f85b6228-3734-4525-b6b7-3f3bb220902c
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 2023
12. systemFlags: FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-OperationsForAzTask

This attribute specifies a list of operations linked to Az-Task.

1. cn: ms-DS-Operations-For-Az-Task
2. ldapDisplayName: msDS-OperationsForAzTask
3. attributeId: 1.2.840.113556.1.4.1808
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 1aacb436-2e9d-44a9-9298-ce4debeb6ebf
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 2018
12. showInAdvancedViewOnly: TRUE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-OperationsForAzTaskBL

This attribute specifies the backlink from Az-Operation to the Az-Task objects that link to it.

1. cn: ms-DS-Operations-For-Az-Task-BL
2. ldapDisplayName: msDS-OperationsForAzTaskBL
3. attributeId: 1.2.840.113556.1.4.1809
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: a637d211-5739-4ed1-89b2-88974548bc59
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 2019
12. systemFlags: FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-OptionalFeatureFlags

This attribute stores an integer value that contains flags that define behavior of an optional feature in Active Directory.

1. cn: ms-DS-Optional-Feature-Flags
2. ldapDisplayName: msDS-OptionalFeatureFlags
3. attributeId: 1.2.840.113556.1.4.2063
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 8a0560c1-97b9-4811-9db7-dc061598965b
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: First implemented on Windows Server 2008 R2.

## Attribute msDS-OptionalFeatureGUID

This attribute stores the GUID of an optional feature.

1. cn: ms-DS-Optional-Feature-GUID
2. ldapDisplayName: msDS-OptionalFeatureGUID
3. attributeId: 1.2.840.113556.1.4.2062
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 9b88bda8-dd82-4998-a91d-5f2d2baf1927
8. systemOnly: TRUE
9. searchFlags: 0
10. rangeLower: 16
11. rangeUpper: 16
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on Windows Server 2008 R2.

## Attribute msDS-Other-Settings

This multivalued attribute is used to store any configurable setting for the DS stored in the NAME=VALUE format.

1. cn: ms-DS-Other-Settings
2. ldapDisplayName: msDS-Other-Settings
3. attributeId: 1.2.840.113556.1.4.1621
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 79d2f34c-9d7d-42bb-838f-866b3e4400e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-parentdistname

This attribute specifies the distinguished name (DN) of the parent object of the current object.

1. cn: ms-DS-Parent-Dist-Name
2. lDAPDisplayName: msDS-parentdistname
3. attributeID: 1.2.840.113556.1.4.2203
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: b918fe7d-971a-f404-9e21-9261abec970b
9. systemOnly: TRUE
10. searchFlags: 0
11. systemFlags: FLAG\_ATTR\_NOT\_REPLICATED | FLAG\_ATTR\_IS\_CONSTRUCTED |
12. FLAG\_ATTR\_IS\_OPERATIONAL | FLAG\_SCHEMA\_BASE\_OBJECT
13. showInAdvancedViewOnly: TRUE

Version-Specific Behavior: First implemented on Windows Server 2012 R2.

## Attribute msDS-PortLDAP

This attribute is used to specify which port is used by the Directory Service to listen for LDAP requests. Currently, this attribute is only used for AD LDS.

1. cn: ms-DS-Port-LDAP
2. ldapDisplayName: msDS-PortLDAP
3. attributeId: 1.2.840.113556.1.4.1859
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 977225c1-5bdf-42b7-b6db-c3af077f558f
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 65535
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-PortSSL

ms-Ds-Port-SSL is used to specify which port is used by the Directory Service to listen for SSL-protected LDAP requests. Currently, this attribute is used only for AD LDS.

1. cn: ms-DS-Port-SSL
2. ldapDisplayName: msDS-PortSSL
3. attributeId: 1.2.840.113556.1.4.1860
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 2c85cfc2-2061-468c-a0ea-c8e0910f7374
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 65535
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-Preferred-GC-Site

The ms-DS-Preferred-GC-Site attribute is used by the security accounts manager for group expansion during token evaluation.

1. cn: ms-DS-Preferred-GC-Site
2. ldapDisplayName: msDS-Preferred-GC-Site
3. attributeId: 1.2.840.113556.1.4.1444
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: d921b50a-0ab2-42cd-87f6-09cf83a91854
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-PrincipalName

This attribute specifies the account name for the security principal (constructed).

1. cn: ms-DS-Principal-Name
2. ldapDisplayName: msDS-PrincipalName
3. attributeId: 1.2.840.113556.1.4.1865
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 564e9325-d057-c143-9e3b-4f9e5ef46f93
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-QuotaAmount

This attribute specifies the assigned quota in terms of number of objects owned in the database.

1. cn: ms-DS-Quota-Amount
2. ldapDisplayName: msDS-QuotaAmount
3. attributeId: 1.2.840.113556.1.4.1845
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: fbb9a00d-3a8c-4233-9cf9-7189264903a1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-QuotaEffective

This attribute specifies the effective quota for a security principal computed from the assigned quotas for a naming context.

1. cn: ms-DS-Quota-Effective
2. ldapDisplayName: msDS-QuotaEffective
3. attributeId: 1.2.840.113556.1.4.1848
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 6655b152-101c-48b4-b347-e1fcebc60157
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-QuotaTrustee

This attribute specifies the SID, as defined in [[MS-DTYP]](%5bMS-DTYP%5d.pdf#Section_cca2742956894a16b2b49325d93e4ba2) section 2.4.2, of the security principal for which a quota is being assigned.

1. cn: ms-DS-Quota-Trustee
2. ldapDisplayName: msDS-QuotaTrustee
3. attributeId: 1.2.840.113556.1.4.1844
4. attributeSyntax: 2.5.5.17
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 16378906-4ea5-49be-a8d1-bfd41dff4f65
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 28
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-QuotaUsed

This attribute specifies the current quota being consumed by a security principal in the directory database.

1. cn: ms-DS-Quota-Used
2. ldapDisplayName: msDS-QuotaUsed
3. attributeId: 1.2.840.113556.1.4.1849
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: b5a84308-615d-4bb7-b05f-2f1746aa439f
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-ReplAttributeMetaData

This attribute specifies a list of metadata for each replicated attribute. The metadata indicates who changed the attribute last.

1. cn: ms-DS-Repl-Attribute-Meta-Data
2. ldapDisplayName: msDS-ReplAttributeMetaData
3. attributeId: 1.2.840.113556.1.4.1707
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: d7c53242-724e-4c39-9d4c-2df8c9d66c7a
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-ReplAuthenticationMode

The **ms-DS-Repl-Authentication-Mode** attribute is used to specify which authentication method is used to authenticate replication partners. This attribute applies to the configuration partition of an AD LDS instance.

1. cn: ms-DS-Repl-Authentication-Mode
2. ldapDisplayName: msDS-ReplAuthenticationMode
3. attributeId: 1.2.840.113556.1.4.1861
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 6e124d4f-1a3f-4cc6-8e09-4a54c81b1d50
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-Replication-Notify-First-DSA-Delay

This attribute controls the delay between changes to the DS and notification of the first replica partner for an NC.

1. cn: ms-DS-Replication-Notify-First-DSA-Delay
2. ldapDisplayName: msDS-Replication-Notify-First-DSA-Delay
3. attributeId: 1.2.840.113556.1.4.1663
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 85abd4f4-0a89-4e49-bdec-6f35bb2562ba
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-Replication-Notify-Subsequent-DSA-Delay

This attribute controls the delay between notification of each subsequent replica partner for an NC.

1. cn: ms-DS-Replication-Notify-Subsequent-DSA-Delay
2. ldapDisplayName: msDS-Replication-Notify-Subsequent-DSA-Delay
3. attributeId: 1.2.840.113556.1.4.1664
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: d63db385-dd92-4b52-b1d8-0d3ecc0e86b6
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-ReplicationEpoch

This attribute is used to hold the epoch under which all of the DCs are replicating. An epoch is the period in which a domain has a specific name. A new epoch starts when a domain name change occurs.

1. cn: ms-DS-ReplicationEpoch
2. ldapDisplayName: msDS-ReplicationEpoch
3. attributeId: 1.2.840.113556.1.4.1720
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 08e3aa79-eb1c-45b5-af7b-8f94246c8e41
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-ReplValueMetaData

This attribute specifies a list of metadata for each value of an attribute. The metadata indicates who changed the value last.

1. cn: ms-DS-Repl-Value-Meta-Data
2. ldapDisplayName: msDS-ReplValueMetaData
3. attributeId: 1.2.840.113556.1.4.1708
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 2f5c8145-e1bd-410b-8957-8bfa81d5acfd
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-ReplValueMetaDataExt

This attribute contains no values on any object.

1. cn: ms-DS-Repl-Value-Meta-Data-Ext
2. ldapDisplayName: msDS-ReplValueMetaDataExt
3. attributeId: 1.2.840.113556.1.4.2235
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 1e02d2ef-44ad-46b2-a67d-9fd18d780bca
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_ATTR\_IS\_CONSTRUCTED | FLAG\_SCHEMA\_BASE\_OBJECT
11. showInAdvancedViewOnly: TRUE

Version-Specific Behavior: First implemented on Windows Server 2012 R2.

## Attribute msDS-RequiredDomainBehaviorVersion

This attribute specifies the required domain functional level for an optional feature enabled in a domain-wide scope.

1. cn: ms-DS-Required-Domain-Behavior-Version
2. ldapDisplayName: msDS-RequiredDomainBehaviorVersion
3. attributeId: 1.2.840.113556.1.4.2066
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: eadd3dfe-ae0e-4cc2-b9b9-5fe5b6ed2dd2
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on Windows Server 2008 R2.

## Attribute msDS-RequiredForestBehaviorVersion

This attribute specifies the required forest functional level for an optional feature.

1. cn: ms-DS-Required-Forest-Behavior-Version
2. ldapDisplayName: msDS-RequiredForestBehaviorVersion
3. attributeId: 1.2.840.113556.1.4.2079
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 4beca2e8-a653-41b2-8fee-721575474bec
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on Windows Server 2008 R2.

## Attribute msDS-RetiredReplNCSignatures

This attribute specifies information about naming contexts that are no longer held on this computer.

1. cn: ms-DS-Retired-Repl-NC-Signatures
2. ldapDisplayName: msDS-RetiredReplNCSignatures
3. attributeId: 1.2.840.113556.1.4.1826
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: d5b35506-19d6-4d26-9afb-11357ac99b5e
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDs-Schema-Extensions

This attribute specifies a binary BLOB used to store information about extensions to schema objects.

1. cn: ms-ds-Schema-Extensions
2. ldapDisplayName: msDs-Schema-Extensions
3. attributeId: 1.2.840.113556.1.4.1440
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: b39a61be-ed07-4cab-9a4a-4963ed0141e1
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-SCPContainer

This attribute specifies the custom location to place SCP objects. This attribute contains a DN value (either FQDN or GUID–based) for the container in Active Directory.

1. cn: ms-DS-SCP-Container
2. ldapDisplayName: msDS-SCPContainer
3. attributeId: 1.2.840.113556.1.4.1872
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 454588e6-0b4e-b642-a6b8-ec03f6e1d9c5
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 4096
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-SDReferenceDomain

This attribute specifies the domain to be used for default security descriptor translation for a non-domain naming context.

1. cn: ms-DS-SD-Reference-Domain
2. ldapDisplayName: msDS-SDReferenceDomain
3. attributeId: 1.2.840.113556.1.4.1711
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 4c51e316-f628-43a5-b06b-ffb695fcb4f3
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 2000
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-Security-Group-Extra-Classes

This attribute specifies the common names of the nonstandard classes that can be added to a security group through the Active Directory Users and Computers snap-in.

1. cn: ms-DS-Security-Group-Extra-Classes
2. ldapDisplayName: msDS-Security-Group-Extra-Classes
3. attributeId: 1.2.840.113556.1.4.1688
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 4f146ae8-a4fe-4801-a731-f51848a4f4e4
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute msDS-ServiceAccount

This attribute specifies the FPO representing the AD LDS service account.

1. cn: ms-DS-Service-Account
2. ldapDisplayName: msDS-ServiceAccount
3. attributeId: 1.2.840.113556.1.4.1866
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: a7f73651-688b-401e-b0cf-9345857bab23
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 2040
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-ServiceAccountBL

This attribute specifies a backlink reference to the AD LDS DSA object that uses this service account.

1. cn: ms-DS-Service-Account-BL
2. ldapDisplayName: msDS-ServiceAccountBL
3. attributeId: 1.2.840.113556.1.4.1867
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 1322c9ff-1334-3d4a-9396-4d9284d42636
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 2041
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-ServiceAccountDNSDomain

This attribute specifies the domain of which the AD LDS service account is a member.

1. cn: ms-DS-Service-Account-DNS-Domain
2. ldapDisplayName: msDS-ServiceAccountDNSDomain
3. attributeId: 1.2.840.113556.1.4.1862
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: fba633d4-20d7-4773-8b2c-c7445f54360d
8. systemOnly: TRUE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 2048
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-Settings

This attribute is used to store settings for an object. Its use is solely determined by the object's owner. It is recommended to use it to store name/value pairs; for example, color=blue.

1. cn: ms-DS-Settings
2. ldapDisplayName: msDS-Settings
3. attributeId: 1.2.840.113556.1.4.1697
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 0e1b47d7-40a3-4b48-8d1b-4cac0c1cdf21
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 1000000

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-TasksForAzRole

This attribute specifies a list of tasks for Az-Role.

1. cn: ms-DS-Tasks-For-Az-Role
2. ldapDisplayName: msDS-TasksForAzRole
3. attributeId: 1.2.840.113556.1.4.1814
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 35319082-8c4a-4646-9386-c2949d49894d
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 2024

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-TasksForAzRoleBL

This attribute specifies a backlink from Az-Task to the Az-Role objects that link to it.

1. cn: ms-DS-Tasks-For-Az-Role-BL
2. ldapDisplayName: msDS-TasksForAzRoleBL
3. attributeId: 1.2.840.113556.1.4.1815
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: a0dcd536-5158-42fe-8c40-c00a7ad37959
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 2025
12. showInAdvancedViewOnly: TRUE
13. systemFlags: FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-TasksForAzTask

This attribute specifies a list of tasks linked to Az-Task.

1. cn: ms-DS-Tasks-For-Az-Task
2. ldapDisplayName: msDS-TasksForAzTask
3. attributeId: 1.2.840.113556.1.4.1810
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: b11c8ee2-5fcd-46a7-95f0-f38333f096cf
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 2020

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-TasksForAzTaskBL

This attribute specifies a backlink from Az-Task to the Az-Task objects that link to it.

1. cn: ms-DS-Tasks-For-Az-Task-BL
2. ldapDisplayName: msDS-TasksForAzTaskBL
3. attributeId: 1.2.840.113556.1.4.1811
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: df446e52-b5fa-4ca2-a42f-13f98a526c8f
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 2021
12. systemFlags: FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-TombstoneQuotaFactor

This attribute specifies the percentage factor by which the tombstone object count is reduced for the purpose of quota accounting.

1. cn: ms-DS-Tombstone-Quota-Factor
2. ldapDisplayName: msDS-TombstoneQuotaFactor
3. attributeId: 1.2.840.113556.1.4.1847
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 461744d7-f3b6-45ba-8753-fb9552a5df32
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 100
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-TopQuotaUsage

This attribute lists the top quota users, ordered by decreasing quota usage currently in the directory database.

1. cn: ms-DS-Top-Quota-Usage
2. ldapDisplayName: msDS-TopQuotaUsage
3. attributeId: 1.2.840.113556.1.4.1850
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 7b7cce4f-f1f5-4bb6-b7eb-23504af19e75
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-UpdateScript

This attribute is used to hold the script with the domain restructure instructions.

1. cn: ms-DS-UpdateScript
2. ldapDisplayName: msDS-UpdateScript
3. attributeId: 1.2.840.113556.1.4.1721
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 146eb639-bb9f-4fc1-a825-e29e00c77920
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-User-Account-Control-Computed

This attribute specifies flags that control behavior of the user account. For more information, see [[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) section 3.1.1.4.5.17.

1. cn: ms-DS-User-Account-Control-Computed
2. ldapDisplayName: msDS-User-Account-Control-Computed
3. attributeId: 1.2.840.113556.1.4.1460
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 2cc4b836-b63f-4940-8d23-ea7acf06af56
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: 4c164200-20c0-11d0-a768-00aa006e0529
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-UserAccountDisabled

This attribute specifies a Boolean flag that controls whether an account is disabled or enabled.

1. cn: ms-DS-User-Account-Disabled
2. ldapDisplayName: msDS-UserAccountDisabled
3. attributeId: 1.2.840.113556.1.4.1853
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: 7c708658-7372-4211-b22b-13a45ffd1d61
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-UserDontExpirePassword

This attribute specifies a Boolean flag that controls whether the password will expire for the account that this attribute references.

1. cn: ms-DS-User-Dont-Expire-Password
2. ldapDisplayName: msDS-UserDontExpirePassword
3. attributeId: 1.2.840.113556.1.4.1855
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: 8788193a-2925-43d9-a221-bb7fff397675
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-UserPasswordExpired

This attribute specifies a Boolean flag that indicates whether the password has expired for the account that this attribute references. TRUE means that the password has expired.

1. cn: ms-DS-User-Password-Expired
2. ldapDisplayName: msDS-UserPasswordExpired
3. attributeId: 1.2.840.113556.1.4.1858
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: 565c7ab5-e13e-47f6-abb5-de741806f125
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute msDS-USNLastSyncSuccess

This attribute specifies the USN at which the last successful replication synchronization occurred.

1. cn: ms-DS-USN-Last-Sync-Success
2. ldapDisplayName: msDS-USNLastSyncSuccess
3. attributeId: 1.2.840.113556.1.4.2055
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 31f7b8b6-c9f8-4f2d-a37b-58a823030331
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED |
11. FLAG\_ATTR\_IS\_OPERATIONAL
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: First implemented on Windows Server 2008 R2.

## Attribute mustContain

This attribute specifies the list of mandatory attributes for a class. These attributes have to be specified when an instance of the class is created.

1. cn: Must-Contain
2. ldapDisplayName: mustContain
3. attributeId: 1.2.840.113556.1.2.24
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: bf9679d3-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute name

This attribute specifies the relative distinguished name of an object.

1. cn: RDN
2. ldapDisplayName: name
3. attributeId: 1.2.840.113556.1.4.1
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a0e-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE| fANR | fATTINDEX
10. rangeLower: 1
11. rangeUpper: 255
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
15. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute nCName

This attribute specifies the distinguished name of the naming context for the object.

1. cn: NC-Name
2. ldapDisplayName: nCName
3. attributeId: 1.2.840.113556.1.2.16
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: bf9679d6-0de6-11d0-a285-00aa003049e2
9. systemOnly: TRUE
10. searchFlags: fPRESERVEONDELETE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute nETBIOSName

This attribute specifies the name of the object to be used over NetBIOS.

1. cn: NETBIOS-Name
2. ldapDisplayName: nETBIOSName
3. attributeId: 1.2.840.113556.1.4.87
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679d8-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. rangeLower: 1
11. rangeUpper: 16
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute networkAddress

This attribute specifies the TCP/IP address for a network segment. Also called the subnet address.

1. cn: Network-Address
2. ldapDisplayName: networkAddress
3. attributeId: 1.2.840.113556.1.2.459
4. attributeSyntax: 2.5.5.4
5. omSyntax: 20
6. isSingleValued: FALSE
7. schemaIdGuid: bf9679d9-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 256

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute nonIndexedMetadata

ms-DS-Non-Indexed-Metadata

1. cn: ms-DS-Non-Indexed-Metadata
2. ldapDisplayName: nonIndexedMetadata
3. attributeId: 1.2.840.113556.1.4.1887
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute notificationList

This attribute is not necessary for Active Directory to function. The protocol does not define a format beyond that required by the schema.

1. cn: Notification-List
2. ldapDisplayName: notificationList
3. attributeId: 1.2.840.113556.1.4.303
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 19195a56-6da0-11d0-afd3-00c04fd930c9
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute ntPwdHistory

This attribute specifies the password history of the user in Windows NT operating system one-way format (OWF). Windows 2000 operating system uses the Windows NT OWF.

1. cn: Nt-Pwd-History
2. ldapDisplayName: ntPwdHistory
3. attributeId: 1.2.840.113556.1.4.94
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: bf9679e2-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute nTSecurityDescriptor

This attribute specifies the Windows NT security descriptor for an object.

1. cn: NT-Security-Descriptor
2. ldapDisplayName: nTSecurityDescriptor
3. attributeId: 1.2.840.113556.1.2.281
4. attributeSyntax: 2.5.5.15
5. omSyntax: 66
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679e3-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fPRESERVEONDELETE
10. rangeLower: 0
11. rangeUpper: 132096
12. isMemberOfPartialAttributeSet: TRUE
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_OPERATIONAL |
14. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute o

This attribute specifies the name of the company or organization.

1. cn: Organization-Name
2. ldapDisplayName: o
3. attributeId: 2.5.4.10
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: bf9679ef-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
15. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute objectCategory

This attribute specifies an object class name used to group objects of this or derived classes.

1. cn: Object-Category
2. ldapDisplayName: objectCategory
3. attributeId: 1.2.840.113556.1.4.782
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 26d97369-6070-11d1-a9c6-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: fATTINDEX
11. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
12. isMemberOfPartialAttributeSet: TRUE
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
14. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute objectClass

This attribute specifies the list of classes of which this object is an instance.

1. cn: Object-Class
2. ldapDisplayName: objectClass
3. attributeId: 2.5.4.0
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: bf9679e5-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE | fATTINDEX
10. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
11. isMemberOfPartialAttributeSet: TRUE
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
13. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute objectClassCategory

This attribute contains the class type, such as abstract, auxiliary, or structured.

1. cn: Object-Class-Category
2. ldapDisplayName: objectClassCategory
3. attributeId: 1.2.840.113556.1.2.370
4. attributeSyntax: 2.5.5.9
5. omSyntax: 10
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679e6-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 3
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute objectClasses

This attribute is a multivalued property containing strings that represent each class in the schema. Each value contains the [governsID](#Section_1c2fcfcf025946deb2cb06b9e32644e6), [lDAPDisplayName](#Section_fc92e718c06c4906a403cee6de4da32b), [mustContain](#Section_2a1e36cbd0d4411f8216543c14e524fe), [mayContain](#Section_f6ddd721da4343778afa6dcb6f752a73), and so on.

1. cn: Object-Classes
2. ldapDisplayName: objectClasses
3. attributeId: 2.5.21.6
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 9a7ad94b-ca53-11d1-bbd0-0080c76670c0
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
11. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute objectGUID

This attribute specifies the unique identifier for an object.

1. cn: Object-Guid
2. ldapDisplayName: objectGUID
3. attributeId: 1.2.840.113556.1.4.2
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679e7-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE | fATTINDEX
10. rangeLower: 16
11. rangeUpper: 16
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
15. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute objectSid

This attribute contains a binary value that specifies the security identifier (SID) of a security principal object. The SID is a unique value used to identify security principal objects.

1. cn: Object-Sid
2. ldapDisplayName: objectSid
3. attributeId: 1.2.840.113556.1.4.146
4. attributeSyntax: 2.5.5.17
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679e8-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE | fATTINDEX
10. rangeLower: 0
11. rangeUpper: 28
12. attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
15. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute objectVersion

This attribute can be used to store a version number for the object.

1. cn: Object-Version
2. ldapDisplayName: objectVersion
3. attributeId: 1.2.840.113556.1.2.76
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 16775848-47f3-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute oMObjectClass

This attribute specifies the unique OID for the attribute or class.

1. cn: OM-Object-Class
2. ldapDisplayName: oMObjectClass
3. attributeId: 1.2.840.113556.1.2.218
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679ec-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute oMSyntax

Used as part of specifying the syntax of an attribute. See [[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) section 3.1.1.2.2.2, LDAP Representation, for information on how this object is used by the Active Directory service.

1. cn: OM-Syntax
2. ldapDisplayName: oMSyntax
3. attributeId: 1.2.840.113556.1.2.231
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679ed-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute options

This attribute is a bit field, where the meaning of the bits varies from objectClass to objectClass. Can occur on Inter-Site-Transport, NTDS-Connection, NTDS-DSA, NTDS-Site-Settings, and Site-Link objects.

1. cn: Options
2. ldapDisplayName: options
3. attributeId: 1.2.840.113556.1.4.307
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 19195a53-6da0-11d0-afd3-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute otherFacsimileTelephoneNumber

This attribute specifies a list of alternate facsimile numbers.

1. cn: Phone-Fax-Other
2. ldapDisplayName: otherFacsimileTelephoneNumber
3. attributeId: 1.2.840.113556.1.4.646
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 0296c11d-40da-11d1-a9c0-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute otherHomePhone

This attribute specifies a list of alternate home phone numbers.

1. cn: Phone-Home-Other
2. ldapDisplayName: otherHomePhone
3. attributeId: 1.2.840.113556.1.2.277
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: f0f8ffa2-1191-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute otherIpPhone

This attribute specifies the list of alternate TCP/IP addresses for the phone. Used by telephony.

1. cn: Phone-Ip-Other
2. ldapDisplayName: otherIpPhone
3. attributeId: 1.2.840.113556.1.4.722
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 4d146e4b-48d4-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
11. isMemberOfPartialAttributeSet: TRUE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute otherMobile

This attribute specifies a list of alternate cell phone numbers.

1. cn: Phone-Mobile-Other
2. ldapDisplayName: otherMobile
3. attributeId: 1.2.840.113556.1.4.647
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 0296c11e-40da-11d1-a9c0-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute otherPager

This attribute specifies a list of alternate pager numbers.

1. cn: Phone-Pager-Other
2. ldapDisplayName: otherPager
3. attributeId: 1.2.840.113556.1.2.118
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: f0f8ffa4-1191-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute otherTelephone

This attribute specifies a list of alternate office phone numbers.

1. cn: Phone-Office-Other
2. ldapDisplayName: otherTelephone
3. attributeId: 1.2.840.113556.1.2.18
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: f0f8ffa5-1191-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute otherWellKnownObjects

This attribute contains a list of containers by GUID and distinguished name. This permits retrieving an object after it has been moved by using just the GUID and the domain name. Whenever the object is moved, the Active Directory system will automatically update the distinguished name.

1. cn: Other-Well-Known-Objects
2. ldapDisplayName: otherWellKnownObjects
3. attributeId: 1.2.840.113556.1.4.1359
4. attributeSyntax: 2.5.5.7
5. omSyntax: 127
6. omObjectClass: 1.2.840.113556.1.1.1.11
7. isSingleValued: FALSE
8. schemaIdGuid: 1ea64e5d-ac0f-11d2-90df-00c04fd91ab1
9. systemOnly: FALSE
10. searchFlags: 0
11. rangeLower: 16
12. rangeUpper: 16
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute ou

This attribute specifies the name of the organizational unit.

1. cn: Organizational-Unit-Name
2. ldapDisplayName: ou
3. attributeId: 2.5.4.11
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: bf9679f0-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
15. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute owner

This attribute specifies the distinguished name of an object that has ownership of an object.

1. cn: Owner
2. ldapDisplayName: owner
3. attributeId: 2.5.4.32
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: bf9679f3-0de6-11d0-a285-00aa003049e2
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 44

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute ownerBL

This attribute specifies the backlink to the [owner](#Section_3cd444e9c54a4ab496213baeb89834b9) attribute. It contains a list of owners for an object.

1. cn: ms-Exch-Owner-BL
2. ldapDisplayName: ownerBL
3. attributeId: 1.2.840.113556.1.2.104
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: bf9679f4-0de6-11d0-a285-00aa003049e2
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 45
12. systemFlags: FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute pager

This attribute specifies the primary pager number.

1. cn: Phone-Pager-Primary
2. ldapDisplayName: pager
3. attributeId: 0.9.2342.19200300.100.1.42
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: f0f8ffa6-1191-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute parentGUID

This is a constructed attribute, invented to support the DirSync control. Holds the objectGuid of an object's parent when replicating an object's creation, rename, or move.

1. cn: Parent-GUID
2. ldapDisplayName: parentGUID
3. attributeId: 1.2.840.113556.1.4.1224
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 2df90d74-009f-11d2-aa4c-00c04fd7d83a
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
11. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute partialAttributeDeletionList

This attribute tacks the internal replication state of partial replicas (that is, on GCs). It is an attribute of the partial replica NC object, and is used when the GC is in the process of removing attributes from the objects in its partial replica NCs.

1. cn: Partial-Attribute-Deletion-List
2. ldapDisplayName: partialAttributeDeletionList
3. attributeId: 1.2.840.113556.1.4.663
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 28630ec0-41d5-11d1-a9c1-0000f80367c1
8. systemOnly: TRUE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
12. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute partialAttributeSet

This attribute tracks the internal replication state of partial replicas (that is, on GCs). It is an attribute of the partial replica NC object, and defines the set of attributes present on a particular partial replica NC.

1. cn: Partial-Attribute-Set
2. ldapDisplayName: partialAttributeSet
3. attributeId: 1.2.840.113556.1.4.640
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 19405b9e-3cfa-11d1-a9c0-0000f80367c1
8. systemOnly: TRUE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
12. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute pekList

This attribute specifies a list of password encryption keys. The attribute is used internally. It is not replicated and its content is not accessible through any protocol. For more information see [[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) section 3.1.1.4.4 (Extended Access Checks).

1. cn: Pek-List
2. ldapDisplayName: pekList
3. attributeId: 1.2.840.113556.1.4.865
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 07383083-91df-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute personalTitle

This attribute specifies the user's title.

1. cn: Personal-Title
2. ldapDisplayName: personalTitle
3. attributeId: 1.2.840.113556.1.2.615
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 16775858-47f3-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute photo

This attribute specifies an object encoded in G3 fax as explained in recommendation T.4, with an ASN.1 wrapper to make it compatible with an X.400 BodyPart as defined in X.420.

1. cn: photo
2. ldapDisplayName: photo
3. attributeId: 0.9.2342.19200300.100.1.7
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 9c979768-ba1a-4c08-9632-c6a5c1ed649a
8. systemOnly: FALSE
9. searchFlags: 0
10. showInAdvancedViewOnly: FALSE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute physicalDeliveryOfficeName

This attribute contains the office location in the user's place of business.

1. cn: Physical-Delivery-Office-Name
2. ldapDisplayName: physicalDeliveryOfficeName
3. attributeId: 2.5.4.19
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679f7-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fANR | fATTINDEX
10. rangeLower: 1
11. rangeUpper: 128
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute possibleInferiors

This attribute specifies the list of objects that this object can contain.

1. cn: Possible-Inferiors
2. ldapDisplayName: possibleInferiors
3. attributeId: 1.2.840.113556.1.4.915
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: 9a7ad94c-ca53-11d1-bbd0-0080c76670c0
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
11. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute possSuperiors

This attribute specifies the list of objects that can contain this class.

1. cn: Poss-Superiors
2. ldapDisplayName: possSuperiors
3. attributeId: 1.2.840.113556.1.2.8
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: bf9679fa-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute postalAddress

This attribute specifies the mailing address for the object.

1. cn: Postal-Address
2. ldapDisplayName: postalAddress
3. attributeId: 2.5.4.16
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: bf9679fc-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. rangeLower: 1
11. rangeUpper: 4096
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute postalCode

This attribute specifies the postal or ZIP code for mail delivery.

1. cn: Postal-Code
2. ldapDisplayName: postalCode
3. attributeId: 2.5.4.17
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679fd-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. rangeLower: 1
11. rangeUpper: 40
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute postOfficeBox

This attribute specifies the P.O. box number for this object.

1. cn: Post-Office-Box
2. ldapDisplayName: postOfficeBox
3. attributeId: 2.5.4.18
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: bf9679fb-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. rangeLower: 1
11. rangeUpper: 40
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute preferredDeliveryMethod

This attribute specifies the X.500–preferred way [[X500]](https://go.microsoft.com/fwlink/?LinkId=90589) to deliver to the addressee.

1. cn: Preferred-Delivery-Method
2. ldapDisplayName: preferredDeliveryMethod
3. attributeId: 2.5.4.28
4. attributeSyntax: 2.5.5.9
5. omSyntax: 10
6. isSingleValued: FALSE
7. schemaIdGuid: bf9679fe-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute preferredLanguage

This attribute specifies the preferred written or spoken language for a person.

1. cn: preferredLanguage
2. ldapDisplayName: preferredLanguage
3. attributeId: 2.16.840.1.113730.3.1.39
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 856be0d0-18e7-46e1-8f5f-7ee4d9020e0d
8. systemOnly: FALSE
9. searchFlags: 0
10. showInAdvancedViewOnly: FALSE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute preferredOU

This attribute specifies the organizational unit to show by default on the user's desktop.

1. cn: Preferred-OU
2. ldapDisplayName: preferredOU
3. attributeId: 1.2.840.113556.1.4.97
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: bf9679ff-0de6-11d0-a285-00aa003049e2
9. systemOnly: FALSE
10. searchFlags: fCOPY

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute prefixMap

The **Prefix-Map** attribute is for internal use only.

1. cn: Prefix-Map
2. ldapDisplayName: prefixMap
3. attributeId: 1.2.840.113556.1.4.538
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 52458022-ca6a-11d0-afff-0000f80367c1
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute primaryGroupToken

A computed attribute that is used in retrieving the membership list of a group such as Domain Users. The complete membership of such groups is not stored explicitly for scaling reasons.

1. cn: Primary-Group-Token
2. ldapDisplayName: primaryGroupToken
3. attributeId: 1.2.840.113556.1.4.1412
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: c0ed8738-7efd-4481-84d9-66d2db8be369
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute primaryInternationalISDNNumber

This attribute specifies the primary ISDN number.

1. cn: Phone-ISDN-Primary
2. ldapDisplayName: primaryInternationalISDNNumber
3. attributeId: 1.2.840.113556.1.4.649
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 0296c11f-40da-11d1-a9c0-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute primaryTelexNumber

This attribute specifies the primary telex number.

1. cn: Telex-Primary
2. ldapDisplayName: primaryTelexNumber
3. attributeId: 1.2.840.113556.1.4.648
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 0296c121-40da-11d1-a9c0-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute proxiedObjectName

This attribute is used internally by Active Directory to help track interdomain moves.

1. cn: Proxied-Object-Name
2. ldapDisplayName: proxiedObjectName
3. attributeId: 1.2.840.113556.1.4.1249
4. attributeSyntax: 2.5.5.7
5. omSyntax: 127
6. omObjectClass: 1.2.840.113556.1.1.1.11
7. isSingleValued: TRUE
8. schemaIdGuid: e1aea402-cd5b-11d0-afff-0000f80367c1
9. systemOnly: TRUE
10. searchFlags: 0
11. isMemberOfPartialAttributeSet: TRUE
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
13. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute proxyAddresses

This attribute specifies proxy addresses. A proxy address is the address by which a Microsoft Exchange Server recipient object is recognized in a foreign mail system. Proxy addresses are required for all recipient objects, such as custom recipients and distribution lists.

1. cn: Proxy-Addresses
2. ldapDisplayName: proxyAddresses
3. attributeId: 1.2.840.113556.1.2.210
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a06-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fANR | fATTINDEX
10. rangeLower: 1
11. rangeUpper: 1123
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute pwdLastSet

This attribute specifies the date and time that the password for this account was last changed. This value is stored as a large integer that represents the number of 100-nanosecond intervals since January 1, 1601 (UTC).

1. cn: Pwd-Last-Set
2. ldapDisplayName: pwdLastSet
3. attributeId: 1.2.840.113556.1.4.96
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a0a-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: 4c164200-20c0-11d0-a768-00aa006e0529
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute queryFilter

Query-Filter attribute.

1. cn: Query-Filter
2. ldapDisplayName: queryFilter
3. attributeId: 1.2.840.113556.1.4.1355
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: cbf70a26-7e78-11d2-9921-0000f87a57d4
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute queryPolicyBL

This attribute is the back link attribute of queryPolicy and lists all objects holding references to a given Query-Policy.

1. cn: Query-Policy-BL
2. ldapDisplayName: queryPolicyBL
3. attributeId: 1.2.840.113556.1.4.608
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: e1aea404-cd5b-11d0-afff-0000f80367c1
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 69
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute queryPolicyObject

This attribute contains a reference to the default Query-Policy in force for this server.

1. cn: Query-Policy-Object
2. ldapDisplayName: queryPolicyObject
3. attributeId: 1.2.840.113556.1.4.607
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: e1aea403-cd5b-11d0-afff-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 68
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute rangeLower

This attribute specifies the minimum value or length of an attribute.

1. cn: Range-Lower
2. ldapDisplayName: rangeLower
3. attributeId: 1.2.840.113556.1.2.34
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a0c-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute rangeUpper

This attribute specifies the maximum value or length of an attribute.

1. cn: Range-Upper
2. ldapDisplayName: rangeUpper
3. attributeId: 1.2.840.113556.1.2.35
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a0d-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute rDNAttID

This attribute specifies the RDN for the attribute that is used to name a class.

1. cn: RDN-Att-ID
2. ldapDisplayName: rDNAttID
3. attributeId: 1.2.840.113556.1.2.26
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a0f-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute registeredAddress

This attribute specifies a mnemonic for an address associated with an object at a particular city location. The mnemonic is registered in the country/region in which the city is located and is used in the provision of the Public Telegram Service.

1. cn: Registered-Address
2. ldapDisplayName: registeredAddress
3. attributeId: 2.5.4.26
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a10-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 4096
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute replInterval

The attribute of Site-Link objects that defines the interval in minutes between replication cycles between the sites in the Site-List. It has to be a multiple of 15 minutes (the granularity of cross-site DS replication), a minimum of 15 minutes, and a maximum of 10,080 minutes (one week).

1. cn: Repl-Interval
2. ldapDisplayName: replInterval
3. attributeId: 1.2.840.113556.1.4.1336
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 45ba9d1a-56fa-11d2-90d0-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute replPropertyMetaData

This attribute tracks internal replication state information for DS objects. Information here can be extracted in public form through the public DsReplicaGetInfo() API. This attribute is present on all DS objects.

1. cn: Repl-Property-Meta-Data
2. ldapDisplayName: replPropertyMetaData
3. attributeId: 1.2.840.113556.1.4.3
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 281416c0-1968-11d0-a28f-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_OPERATIONAL |
12. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute replTopologyStayOfExecution

This attribute specifies the delay between deleting a server object and permanently removing it from the replication topology.

1. cn: Repl-Topology-Stay-Of-Execution
2. ldapDisplayName: replTopologyStayOfExecution
3. attributeId: 1.2.840.113556.1.4.677
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 7bfdcb83-4807-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute replUpToDateVector

This attribute tracks internal replication state information for an entire NC. Information here can be extracted in public form through the DsReplicaGetInfo() API. Present on all NC root objects.

1. cn: Repl-UpToDate-Vector
2. ldapDisplayName: replUpToDateVector
3. attributeId: 1.2.840.113556.1.4.4
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a16-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
12. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute repsFrom

This attribute lists the servers from which the directory will accept changes for the defined naming context (NC).

1. cn: Reps-From
2. ldapDisplayName: repsFrom
3. attributeId: 1.2.840.113556.1.2.91
4. attributeSyntax: 2.5.5.10
5. omSyntax: 127
6. omObjectClass: 1.2.840.113556.1.1.1.6
7. isSingleValued: FALSE
8. schemaIdGuid: bf967a1d-0de6-11d0-a285-00aa003049e2
9. systemOnly: TRUE
10. searchFlags: 0
11. isMemberOfPartialAttributeSet: TRUE
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
13. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute repsTo

This attribute lists the servers that the directory will notify of changes and the servers that the directory will send changes to, upon request for the defined NC.

1. cn: Reps-To
2. ldapDisplayName: repsTo
3. attributeId: 1.2.840.113556.1.2.83
4. attributeSyntax: 2.5.5.10
5. omSyntax: 127
6. omObjectClass: 1.2.840.113556.1.1.1.6
7. isSingleValued: FALSE
8. schemaIdGuid: bf967a1e-0de6-11d0-a285-00aa003049e2
9. systemOnly: TRUE
10. searchFlags: 0
11. isMemberOfPartialAttributeSet: TRUE
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
13. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute retiredReplDSASignatures

This attribute tracks the past DS replication identities of a given DC.

1. cn: Retired-Repl-DSA-Signatures
2. ldapDisplayName: retiredReplDSASignatures
3. attributeId: 1.2.840.113556.1.4.673
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 7bfdcb7f-4807-11d1-a9c3-0000f80367c1
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute revision

This attribute specifies the revision level for a security descriptor or other change. Only used in the sam-server and ds-ui-settings objects.

1. cn: Revision
2. ldapDisplayName: revision
3. attributeId: 1.2.840.113556.1.4.145
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a21-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute rightsGuid

This attribute specifies the GUID that is used to represent an extended right within an access control entry.

1. cn: Rights-Guid
2. ldapDisplayName: rightsGuid
3. attributeId: 1.2.840.113556.1.4.340
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 8297931c-86d3-11d0-afda-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 36
11. rangeUpper: 36
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute roomNumber

This attribute specifies the room number of an object.

1. cn: roomNumber
2. ldapDisplayName: roomNumber
3. attributeId: 0.9.2342.19200300.100.1.6
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 81d7f8c2-e327-4a0d-91c6-b42d4009115f
8. systemOnly: FALSE
9. searchFlags: 0
10. showInAdvancedViewOnly: FALSE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute rootTrust

This attribute specifies the distinguished name of another [Cross-Ref](#Section_f58b3a84de994b0aa1566ad64cea2d8e).

1. cn: Root-Trust
2. ldapDisplayName: rootTrust
3. attributeId: 1.2.840.113556.1.4.674
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 7bfdcb80-4807-11d1-a9c3-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute schedule

This attribute specifies a schedule BLOB as defined by the NT Job Service. Used by replication.

1. cn: Schedule
2. ldapDisplayName: schedule
3. attributeId: 1.2.840.113556.1.4.211
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: dd712224-10e4-11d0-a05f-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute schemaFlagsEx

This attribute specifies an integer value that contains flags that define additional properties of the attribute, as shown below. See [[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) for more information. This is an optional attribute.

The schemaFlagsEx attribute contains bitwise flags. The following value is relevant to schema objects:

* FLAG\_ATTR\_IS\_CRITICAL: Specifies that the attribute is not a member of the filtered attribute set even if the fRODCFilteredAttribute ([MS-ADTS] section 3.1.1.2.3.5) is set.

This attribute is defined as follows:

1. cn: Schema-Flags-Ex
2. ldapDisplayName: schemaFlagsEx
3. attributeId: 1.2.840.113556.1.4.120
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a2b-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

The FLAG\_ATTR\_IS\_CRITICAL value was implemented in Windows Server 2008.

## Attribute schemaIDGUID

This attribute specifies the unique identifier for a schema object.

1. cn: Schema-ID-GUID
2. ldapDisplayName: schemaIDGUID
3. attributeId: 1.2.840.113556.1.4.148
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: bf967923-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. rangeLower: 16
11. rangeUpper: 16
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute schemaInfo

This attribute specifies an internal binary value used to detect schema changes between DCs and force a schema NC replication cycle before replicating any other NC. Used to resolve ties when the schema FSMO is seized and a change is made on more than one DC.

1. cn: Schema-Info
2. ldapDisplayName: schemaInfo
3. attributeId: 1.2.840.113556.1.4.1358
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: f9fb64ae-93b4-11d2-9945-0000f87a57d4
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute schemaUpdate

1. cn: Schema-Update
2. ldapDisplayName: schemaUpdate
3. attributeId: 1.2.840.113556.1.4.481
4. attributeSyntax: 2.5.5.11
5. omSyntax: 24
6. isSingleValued: TRUE
7. schemaIdGuid: 1e2d06b4-ac8f-11d0-afe3-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute schemaVersion

This attribute specifies the version number for the schema.

1. cn: Schema-Version
2. ldapDisplayName: schemaVersion
3. attributeId: 1.2.840.113556.1.2.471
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a2c-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute scopeFlags

1. cn: Scope-Flags
2. ldapDisplayName: scopeFlags
3. attributeId: 1.2.840.113556.1.4.1354
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 16f3a4c2-7e79-11d2-9921-0000f87a57d4
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute sDRightsEffective

This constructed attribute returns a single DWORD value that can have up to three bits set: OWNER\_SECURITY\_INFORMATION, DACL\_SECURITY\_INFORMATION, and SACL\_SECURITY\_INFORMATION. If a bit is set, then the user has write access to the corresponding part of the security descriptor.

**Note**: "Owner" means both owner and group.

1. cn: SD-Rights-Effective
2. ldapDisplayName: sDRightsEffective
3. attributeId: 1.2.840.113556.1.4.1304
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: c3dbafa6-33df-11d2-98b2-0000f87a57d4
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
12. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute searchFlags

This attribute contains a set of flags that specify search and indexing information for an attribute.

1. cn: Search-Flags
2. ldapDisplayName: searchFlags
3. attributeId: 1.2.840.113556.1.2.334
4. attributeSyntax: 2.5.5.9
5. omSyntax: 10
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a2d-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute searchGuide

This attribute specifies information of suggested search criteria that might be included in some entries that are expected to be a convenient base object for the search operation; for example, country/region or organization.

1. cn: Search-Guide
2. ldapDisplayName: searchGuide
3. attributeId: 2.5.4.14
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a2e-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute secretary

This attribute contains the distinguished name of the secretary for an account.

1. cn: secretary
2. ldapDisplayName: secretary
3. attributeId: 0.9.2342.19200300.100.1.21
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 01072d9a-98ad-4a53-9744-e83e287278fb
9. systemOnly: FALSE
10. searchFlags: 0
11. showInAdvancedViewOnly: FALSE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute seeAlso

This attribute specifies the list of DNs related to an object.

1. cn: See-Also
2. ldapDisplayName: seeAlso
3. attributeId: 2.5.4.34
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: bf967a31-0de6-11d0-a285-00aa003049e2
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute serialNumber

This attribute is part of the X.500 specification [[X500]](https://go.microsoft.com/fwlink/?LinkId=90589).

1. cn: Serial-Number
2. ldapDisplayName: serialNumber
3. attributeId: 2.5.4.5
4. attributeSyntax: 2.5.5.5
5. omSyntax: 19
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a32-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute serverReference

This attribute specifies a site computer object. The attribute is not necessary for Active Directory Lightweight Directory Services to function. The protocol does not define a format beyond that required by the schema.

1. cn: Server-Reference
2. ldapDisplayName: serverReference
3. attributeId: 1.2.840.113556.1.4.515
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 26d9736d-6070-11d1-a9c6-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 94
12. showInAdvancedViewOnly: TRUE
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute serverReferenceBL

This attribute is the backlink attribute of serverReference, and it contains the DN of a server object under the sites folder. This attribute is not necessary for Active Directory Lightweight Directory Services to function. The protocol does not define a format beyond that required by the schema.

1. cn: Server-Reference-BL
2. ldapDisplayName: serverReferenceBL
3. attributeId: 1.2.840.113556.1.4.516
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 26d9736e-6070-11d1-a9c6-0000f80367c1
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 95
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute shellContextMenu

This attribute specifies the order number and GUID of the context menu for this object.

1. cn: Shell-Context-Menu
2. ldapDisplayName: shellContextMenu
3. attributeId: 1.2.840.113556.1.4.615
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 553fd039-f32e-11d0-b0bc-00c04fd8dca6
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute shellPropertyPages

This attribute specifies the order number and GUID of property pages for managing Active Directory objects. These property pages can be accessed from the Windows shell. For more information, see the document "Extending the User Interface for Directory Objects" [[MSDN-ExtUserIntDirObj]](https://go.microsoft.com/fwlink/?LinkId=107095).

1. cn: Shell-Property-Pages
2. ldapDisplayName: shellPropertyPages
3. attributeId: 1.2.840.113556.1.4.563
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 52458039-ca6a-11d0-afff-0000f80367c1
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute showInAdvancedViewOnly

This attribute is TRUE if the corresponding attribute is to be visible in the advanced mode of the UI.

1. cn: Show-In-Advanced-View-Only
2. ldapDisplayName: showInAdvancedViewOnly
3. attributeId: 1.2.840.113556.1.2.169
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: bf967984-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY | fATTINDEX
10. attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute siteLinkList

This attribute specifies a list of site links that are associated with this bridge.

1. cn: Site-Link-List
2. ldapDisplayName: siteLinkList
3. attributeId: 1.2.840.113556.1.4.822
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: d50c2cdd-8951-11d1-aebc-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 142
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute siteList

This attribute specifies a list of sites that are connected to this link object.

1. cn: Site-List
2. ldapDisplayName: siteList
3. attributeId: 1.2.840.113556.1.4.821
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: d50c2cdc-8951-11d1-aebc-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 144
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute siteObject

This attribute specifies the DN for the site to which this subnet belongs.

1. cn: Site-Object
2. ldapDisplayName: siteObject
3. attributeId: 1.2.840.113556.1.4.512
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 3e10944c-c354-11d0-aff8-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 46
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute siteObjectBL

This attribute is the backlink attribute of siteObject and contains the list of subnet objects that belong to a site.

1. cn: Site-Object-BL
2. ldapDisplayName: siteObjectBL
3. attributeId: 1.2.840.113556.1.4.513
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 3e10944d-c354-11d0-aff8-0000f80367c1
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 47
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute siteServer

This attribute specifies the licensing master server for a given site.

1. cn: Site-Server
2. ldapDisplayName: siteServer
3. attributeId: 1.2.840.113556.1.4.494
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 1be8f17c-a9ff-11d0-afe2-00c04fd930c9
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute sn

This attribute contains the family or last name for a user.

1. cn: Surname
2. ldapDisplayName: sn
3. attributeId: 2.5.4.4
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a41-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fANR | fATTINDEX
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
13. isMemberOfPartialAttributeSet: TRUE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute sourceObjectGuid

ms-DS-Source-Object-Guid

1. cn: ms-DS-Source-Object-Guid
2. ldapDisplayName: sourceObjectGuid
3. attributeId: 1.2.840.113556.1.4.1885
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. searchFlags: fATTINDEX

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute st

This attribute specifies the name of a user's state or province.

1. cn: State-Or-Province-Name
2. ldapDisplayName: st
3. attributeId: 2.5.4.8
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a39-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. rangeLower: 1
11. rangeUpper: 128
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
15. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute street

This attribute specifies the user's street address.

1. cn: Street-Address
2. ldapDisplayName: street
3. attributeId: 2.5.4.9
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a3a-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. rangeLower: 1
11. rangeUpper: 1024
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
15. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute streetAddress

This attribute specifies the user's address.

1. cn: Address
2. ldapDisplayName: streetAddress
3. attributeId: 1.2.840.113556.1.2.256
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: f0f8ff84-1191-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 1024
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute structuralObjectClass

This constructed attribute stores a list of classes contained in a class hierarchy, including abstract classes. This list contains dynamically linked auxiliary classes.

1. cn: Structural-Object-Class
2. ldapDisplayName: structuralObjectClass
3. attributeId: 2.5.21.9
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: 3860949f-f6a8-4b38-9950-81ecb6bc2982
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute subClassOf

This attribute specifies the parent class of a class.

1. cn: Sub-Class-Of
2. ldapDisplayName: subClassOf
3. attributeId: 1.2.840.113556.1.2.21
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a3b-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute subRefs

This attribute specifies a list of subordinate references of a naming context.

1. cn: Sub-Refs
2. ldapDisplayName: subRefs
3. attributeId: 1.2.840.113556.1.2.7
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: bf967a3c-0de6-11d0-a285-00aa003049e2
9. systemOnly: TRUE
10. searchFlags: 0
11. isMemberOfPartialAttributeSet: TRUE
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
13. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute subSchemaSubEntry

This attribute specifies the DN for the location of the subschema object where a class or attribute is defined.

1. cn: SubSchemaSubEntry
2. ldapDisplayName: subSchemaSubEntry
3. attributeId: 2.5.18.10
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 9a7ad94d-ca53-11d1-bbd0-0080c76670c0
9. systemOnly: TRUE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
12. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute superiorDNSRoot

This system attribute is used for referrals generation.

1. cn: Superior-DNS-Root
2. ldapDisplayName: superiorDNSRoot
3. attributeId: 1.2.840.113556.1.4.532
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 5245801d-ca6a-11d0-afff-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute supplementalCredentials

This attribute specifies stored credentials for use in authenticating. It provides the encrypted version of the user's password. This attribute is neither readable nor writable.

1. cn: Supplemental-Credentials
2. ldapDisplayName: supplementalCredentials
3. attributeId: 1.2.840.113556.1.4.125
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a3f-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute systemAuxiliaryClass

This attribute specifies a list of auxiliary classes that cannot be modified by the user.

1. cn: System-Auxiliary-Class
2. ldapDisplayName: systemAuxiliaryClass
3. attributeId: 1.2.840.113556.1.4.198
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a43-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute systemFlags

This attribute specifies an integer value that contains flags that define additional properties of the class.

1. cn: System-Flags
2. ldapDisplayName: systemFlags
3. attributeId: 1.2.840.113556.1.4.375
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: e0fa1e62-9b45-11d0-afdd-00c04fd930c9
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE
10. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute systemMayContain

This attribute specifies the list of optional attributes for a class. The list of attributes can only be modified by the Active Directory system [[MS-ADOD]](%5bMS-ADOD%5d.pdf#Section_5ff67bf4c14548cb89cd4f5482d94664).

1. cn: System-May-Contain
2. ldapDisplayName: systemMayContain
3. attributeId: 1.2.840.113556.1.4.196
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a44-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute systemMustContain

This attribute specifies the list of mandatory attributes for a class. These attributes have to be specified when an instance of the class is created. The list of attributes can be modified only by the Active Directory system.

1. cn: System-Must-Contain
2. ldapDisplayName: systemMustContain
3. attributeId: 1.2.840.113556.1.4.197
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a45-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute systemOnly

This attribute is a Boolean value that specifies whether only Active Directory can modify the class. System-only classes can be created or deleted only by the directory system agent.

1. cn: System-Only
2. ldapDisplayName: systemOnly
3. attributeId: 1.2.840.113556.1.4.170
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a46-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute systemPossSuperiors

This attribute specifies the list of classes that can contain this class. This list can only be modified by the Active Directory system.

1. cn: System-Poss-Superiors
2. ldapDisplayName: systemPossSuperiors
3. attributeId: 1.2.840.113556.1.4.195
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a47-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
12. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute telephoneNumber

This attribute specifies the primary telephone number.

1. cn: Telephone-Number
2. ldapDisplayName: telephoneNumber
3. attributeId: 2.5.4.20
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a49-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute teletexTerminalIdentifier

This attribute specifies the Teletex terminal identifier, and optionally parameters, for a Teletex terminal associated with an object.

1. cn: Teletex-Terminal-Identifier
2. ldapDisplayName: teletexTerminalIdentifier
3. attributeId: 2.5.4.22
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a4a-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute telexNumber

This attribute specifies a list of alternate telex numbers.

1. cn: Telex-Number
2. ldapDisplayName: telexNumber
3. attributeId: 2.5.4.21
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a4b-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 32
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute thumbnailLogo

This attribute specifies a BLOB containing a logo for this object.

1. cn: Logo
2. ldapDisplayName: thumbnailLogo
3. attributeId: 2.16.840.1.113730.3.1.36
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679a9-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 32767
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute thumbnailPhoto

Picture

1. cn: Picture
2. ldapDisplayName: thumbnailPhoto
3. attributeId: 2.16.840.1.113730.3.1.35
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 8d3bca50-1d7e-11d0-a081-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 102400
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute title

This attribute contains the user's job title. This property is commonly used to indicate the formal job title, such as Senior Programmer, rather than occupational class, such as programmer. It is not typically used for suffix titles such as "Esq." or "DDS".

1. cn: Title
2. ldapDisplayName: title
3. attributeId: 2.5.4.12
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a55-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute tokenGroups

This computed attribute contains the list of SIDs due to a transitive group membership expansion operation on a given user or computer. Token groups cannot be retrieved if no global catalog is present to retrieve the transitive reverse memberships.

1. cn: Token-Groups
2. ldapDisplayName: tokenGroups
3. attributeId: 1.2.840.113556.1.4.1301
4. attributeSyntax: 2.5.5.17
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: b7c69e6d-2cc7-11d2-854e-00a0c983f608
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: 037088f8-0ae1-11d2-b422-00a0c968f939
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_IS\_CONSTRUCTED |
12. FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute tombstoneLifetime

If the Recycle Bin optional feature is not enabled, this attribute specifies the number of days before a deleted object is removed from the directory services. If the Recycle Bin optional feature is enabled, this attribute specifies the number of days before a recycled object is removed from the directory services.

1. cn: Tombstone-Lifetime
2. ldapDisplayName: tombstoneLifetime
3. attributeId: 1.2.840.113556.1.2.54
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 16c3a860-1273-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute transportAddressAttribute

This attribute specifies the name of the address type for the transport.

1. cn: Transport-Address-Attribute
2. ldapDisplayName: transportAddressAttribute
3. attributeId: 1.2.840.113556.1.4.895
4. attributeSyntax: 2.5.5.2
5. omSyntax: 6
6. isSingleValued: TRUE
7. schemaIdGuid: c1dc867c-a261-11d1-b606-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute transportDLLName

This attribute specifies the name of the DLL that will manage a transport.

1. cn: Transport-DLL-Name
2. ldapDisplayName: transportDLLName
3. attributeId: 1.2.840.113556.1.4.789
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 26d97372-6070-11d1-a9c6-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 1024
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute transportType

This attribute specifies the DN for a type of transport that is being used to connect sites together. This value can point to an IP or SMTP transport.

1. cn: Transport-Type
2. ldapDisplayName: transportType
3. attributeId: 1.2.840.113556.1.4.791
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 26d97374-6070-11d1-a9c6-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute treatAsLeaf

This attribute defines a flag for display specifiers (see the [displaySpecifier](#Section_abc7a1b5764144cbbd63759c2c5a6dcf) class in section [3](#Section_5861c869e6b14b9ea87349f553408a3c)). Display specifiers that have this attribute set to true force the related class to be displayed as a leaf class even if it has children.

1. cn: Treat-As-Leaf
2. ldapDisplayName: treatAsLeaf
3. attributeId: 1.2.840.113556.1.4.806
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: 8fd044e3-771f-11d1-aeae-0000f80367c1
8. systemOnly: FALSE

Version-Specific Behavior: First implemented on Windows Server 2008.

## Attribute trustParent

This attribute specifies the parent in the Kerberos trust hierarchy.

1. cn: Trust-Parent
2. ldapDisplayName: trustParent
3. attributeId: 1.2.840.113556.1.4.471
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: b000ea7a-a086-11d0-afdd-00c04fd930c9
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute uid

This attribute specifies the user ID.

1. cn: uid
2. ldapDisplayName: uid
3. attributeId: 0.9.2342.19200300.100.1.1
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 0bb0fca0-1e89-429f-901a-1413894d9f59
8. systemOnly: FALSE
9. searchFlags: fPRESERVEONDELETE
10. attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
11. showInAdvancedViewOnly: FALSE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute unicodePwd

The password of the user in Windows NT one-way format (OWF). Windows 2000 uses the Windows NT OWF. This property is used only by the operating system.

**Note**: The clear password cannot be derived back from the OWF form of the password.

1. cn: Unicode-Pwd
2. ldapDisplayName: unicodePwd
3. attributeId: 1.2.840.113556.1.4.90
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679e1-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute uPNSuffixes

This attribute specifies the list of User-Principal-Name suffixes for a domain.

1. cn: UPN-Suffixes
2. ldapDisplayName: uPNSuffixes
3. attributeId: 1.2.840.113556.1.4.890
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 032160bf-9824-11d1-aec0-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute url

This attribute specifies a list of alternate webpages.

1. cn: WWW-Page-Other
2. ldapDisplayName: url
3. attributeId: 1.2.840.113556.1.4.749
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 9a9a0221-4a5b-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: e45795b3-9455-11d1-aebd-0000f80367c1
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute userCertificate

This attribute contains the DER-encoded X509v3 certificates issued to the user ([[RFC3280]](https://go.microsoft.com/fwlink/?LinkId=90414)).

**Note**: This property contains the public key certificates issued to this user by Microsoft Certificate Service.

1. cn: X509-Cert
2. ldapDisplayName: userCertificate
3. attributeId: 2.5.4.36
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a7f-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 32768
11. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
12. isMemberOfPartialAttributeSet: TRUE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute userParameters

This attribute specifies the user's parameters and is set aside for use by applications. Microsoft products use this member to store user data that is specific to the individual program.

1. cn: User-Parameters
2. ldapDisplayName: userParameters
3. attributeId: 1.2.840.113556.1.4.138
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a6d-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 32767
12. attributeSecurityGuid: 4c164200-20c0-11d0-a768-00aa006e0529

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute userPassword

This attribute specifies the user's password in UTF-8 format. This is a write-only attribute.

1. cn: User-Password
2. ldapDisplayName: userPassword
3. attributeId: 2.5.4.35
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a6e-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 128
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute userPKCS12

This attribute specifies PKCS #12 PFX PDU for exchange of personal identity information.

1. cn: userPKCS12
2. ldapDisplayName: userPKCS12
3. attributeId: 2.16.840.1.113730.3.1.216
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 23998ab5-70f8-4007-a4c1-a84a38311f9a
8. systemOnly: FALSE
9. searchFlags: 0
10. showInAdvancedViewOnly: FALSE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute userPrincipalName

This attribute contains the UPN that is an Internet-style logon name for a user, as specified in [[RFC822]](https://go.microsoft.com/fwlink/?LinkId=90497). The UPN is shorter than the DN and easier to remember.

By convention, this attribute maps to the user email name. The value set for this attribute is equal to the length of the user's ID and the domain name.

1. cn: User-Principal-Name
2. ldapDisplayName: userPrincipalName
3. attributeId: 1.2.840.113556.1.4.656
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 28630ebb-41d5-11d1-a9c1-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. rangeUpper: 1024
11. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
12. isMemberOfPartialAttributeSet: TRUE
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
14. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute userSMIMECertificate

This attribute specifies a certificate distribution object or tagged certificates.

1. cn: User-SMIME-Certificate
2. ldapDisplayName: userSMIMECertificate
3. attributeId: 2.16.840.1.113730.3.140
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: e16a9db2-403c-11d1-a9c0-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 32768
11. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
12. isMemberOfPartialAttributeSet: TRUE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute uSNChanged

This attribute specifies an update sequence number (USN) value assigned by the local directory for the latest change, including creation.

1. cn: USN-Changed
2. ldapDisplayName: uSNChanged
3. attributeId: 1.2.840.113556.1.2.120
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a6f-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE | fATTINDEX
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
12. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute uSNCreated

This attribute specifies a [USN-Changed](#Section_b2bce146f6e34d6883483b71aeafdc9d) value that is assigned at object creation.

1. cn: USN-Created
2. ldapDisplayName: uSNCreated
3. attributeId: 1.2.840.113556.1.2.19
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a70-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: fPRESERVEONDELETE | fATTINDEX
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
12. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute uSNDSALastObjRemoved

This attribute contains the USN for the last system object that was removed from a server.

1. cn: USN-DSA-Last-Obj-Removed
2. ldapDisplayName: uSNDSALastObjRemoved
3. attributeId: 1.2.840.113556.1.2.267
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a71-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute USNIntersite

This attribute specifies the USN for intersite replication.

1. cn: USN-Intersite
2. ldapDisplayName: USNIntersite
3. attributeId: 1.2.840.113556.1.2.469
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: a8df7498-c5ea-11d1-bbcb-0080c76670c0
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute uSNLastObjRem

This attribute contains the USN for the last non-system object that was removed from a server.

1. cn: USN-Last-Obj-Rem
2. ldapDisplayName: uSNLastObjRem
3. attributeId: 1.2.840.113556.1.2.121
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a73-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
12. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute uSNSource

This attribute specifies the value of the **USN-Changed** attribute of the object from the remote directory that replicated the change to the local server.

1. cn: USN-Source
2. ldapDisplayName: uSNSource
3. attributeId: 1.2.840.113556.1.4.896
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 167758ad-47f3-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute validAccesses

This attribute specifies the type of access that is permitted with an extended right.

1. cn: Valid-Accesses
2. ldapDisplayName: validAccesses
3. attributeId: 1.2.840.113556.1.4.1356
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 4d2fa380-7f54-11d2-992a-0000f87a57d4
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute wbemPath

This attribute specifies references to objects in other ADSI namespaces.

1. cn: Wbem-Path
2. ldapDisplayName: wbemPath
3. attributeId: 1.2.840.113556.1.4.301
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 244b2970-5abd-11d0-afd2-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute wellKnownObjects

This attribute contains a list of well-known object containers by GUID and distinguished name. The well-known objects are system containers. This information is used to retrieve an object after it has been moved by using just the GUID and the domain name.

Whenever the object is moved, the Active Directory system will automatically update the distinguished name portion of the Well-Known-Objects values that referred to the object.

For information on well-known objects, well-known GUIDs, and their symbolic names, see [[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) section 6.1.1.4.

1. cn: Well-Known-Objects
2. ldapDisplayName: wellKnownObjects
3. attributeId: 1.2.840.113556.1.4.618
4. attributeSyntax: 2.5.5.7
5. omSyntax: 127
6. omObjectClass: 1.2.840.113556.1.1.1.11
7. isSingleValued: FALSE
8. schemaIdGuid: 05308983-7688-11d1-aded-00c04fd8d5cd
9. systemOnly: TRUE
10. searchFlags: 0
11. rangeLower: 16
12. rangeUpper: 16
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
15. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute whenChanged

This attribute specifies the date when this object was last changed. This value is not replicated and exists in the global catalog.

1. cn: When-Changed
2. ldapDisplayName: whenChanged
3. attributeId: 1.2.840.113556.1.2.3
4. attributeSyntax: 2.5.5.11
5. omSyntax: 24
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a77-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
12. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute whenCreated

This attribute specifies the date when this object was created. This value is replicated and is in the global catalog.

1. cn: When-Created
2. ldapDisplayName: whenCreated
3. attributeId: 1.2.840.113556.1.2.2
4. attributeSyntax: 2.5.5.11
5. omSyntax: 24
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a78-0de6-11d0-a285-00aa003049e2
8. systemOnly: TRUE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
12. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute wWWHomePage

This attribute specifies the primary web page.

1. cn: WWW-Home-Page
2. ldapDisplayName: wWWHomePage
3. attributeId: 1.2.840.113556.1.2.464
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967a7a-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 2048
12. attributeSecurityGuid: e45795b3-9455-11d1-aebd-0000f80367c1
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute x121Address

This attribute specifies the X.121 address for an object, as specified in [[X121]](https://go.microsoft.com/fwlink/?LinkId=107134).

1. cn: X121-Address
2. ldapDisplayName: x121Address
3. attributeId: 2.5.4.24
4. attributeSyntax: 2.5.5.6
5. omSyntax: 18
6. isSingleValued: FALSE
7. schemaIdGuid: bf967a7b-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 15
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Attribute x500uniqueIdentifier

This attribute is used to distinguish between objects when a DN has been reused.

**Note**: This is a different attribute type from both the "uid" and "uniqueIdentifier" types.

1. cn: x500uniqueIdentifier
2. ldapDisplayName: x500uniqueIdentifier
3. attributeId: 2.5.4.45
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: d07da11f-8a3d-42b6-b0aa-76c962be719a
8. systemOnly: FALSE
9. searchFlags: 0
10. showInAdvancedViewOnly: FALSE

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

# Classes

The following sections specify the classes in the **Active Directory Lightweight Directory Services** schema.

These sections normatively specify the schema definition of each class, as well as version-specific behavior of those schema definitions (such as when the class was added to the schema). As an aid to the reader, some of the sections also include informative notes about how the class can be used.

**Note**: In the following class definitions, "<SchemaNCDN>" is the DN of the schema NC. For more information, see [[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) section 3.1.1.1.7.

**Note**: Lines of text in the class definitions that are excessively long have been "folded" in accordance with [[RFC2849]](https://go.microsoft.com/fwlink/?LinkId=90389) Note 2.

## Class applicationSettings

This is the base class for server-specific application settings.

1. cn: Application-Settings
2. ldapDisplayName: applicationSettings
3. governsId: 1.2.840.113556.1.5.7000.49
4. objectClassCategory: 2
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: msDS-Settings
8. systemPossSuperiors: server
9. schemaIdGuid: f780acc1-56f0-11d1-a9c6-0000f80367c1
10. defaultHidingValue: TRUE
11. systemOnly: FALSE
12. defaultObjectCategory: CN=Application-Settings,<SchemaNCDN>
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on Active Directory Application Mode (ADAM) and Windows Server 2008 operating system.

## Class applicationSiteSettings

This class specifies the container that holds all site-specific settings.

1. cn: Application-Site-Settings
2. ldapDisplayName: applicationSiteSettings
3. governsId: 1.2.840.113556.1.5.68
4. objectClassCategory: 2
5. rdnAttId: cn
6. subClassOf: top
7. systemPossSuperiors: site
8. schemaIdGuid: 19195a5c-6da0-11d0-afd3-00c04fd930c9
9. defaultSecurityDescriptor: D:S:
10. defaultHidingValue: TRUE
11. systemOnly: FALSE
12. defaultObjectCategory: CN=Application-Site-Settings,<SchemaNCDN>
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class attributeSchema

This class defines an attribute object in the schema.

1. cn: Attribute-Schema
2. ldapDisplayName: attributeSchema
3. governsId: 1.2.840.113556.1.3.14
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: schemaIDGUID, oMSyntax, lDAPDisplayName,
8. isSingleValued, cn, attributeSyntax, attributeID
9. systemMayContain: systemOnly, searchFlags, schemaFlagsEx, rangeUpper,
10. rangeLower, oMObjectClass, msDs-Schema-Extensions, msDS-IntId,
11. linkID, isMemberOfPartialAttributeSet, isEphemeral, isDefunct,
12. extendedCharsAllowed, classDisplayName, attributeSecurityGUID
13. systemPossSuperiors: dMD
14. schemaIdGuid: bf967a80-0de6-11d0-a285-00aa003049e2
15. defaultSecurityDescriptor: D:S:
16. defaultHidingValue: TRUE
17. systemOnly: FALSE
18. defaultObjectCategory: CN=Attribute-Schema,<SchemaNCDN>
19. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class classSchema

This class defines a class object in the schema.

1. cn: Class-Schema
2. ldapDisplayName: classSchema
3. governsId: 1.2.840.113556.1.3.13
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: subClassOf, schemaIDGUID, objectClassCategory,
8. governsID, defaultObjectCategory, cn
9. systemMayContain: systemPossSuperiors, systemOnly, systemMustContain,
10. systemMayContain, systemAuxiliaryClass, schemaFlagsEx, rDNAttID,
11. possSuperiors, mustContain, msDs-Schema-Extensions, msDS-IntId,
12. mayContain, lDAPDisplayName, isDefunct, defaultSecurityDescriptor,
13. defaultHidingValue, classDisplayName, auxiliaryClass
14. systemPossSuperiors: dMD
15. schemaIdGuid: bf967a83-0de6-11d0-a285-00aa003049e2
16. defaultSecurityDescriptor: D:S:
17. defaultHidingValue: TRUE
18. systemOnly: FALSE
19. defaultObjectCategory: CN=Class-Schema,<SchemaNCDN>
20. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class configuration

This class is a container that holds the configuration information for a domain.

1. cn: Configuration
2. ldapDisplayName: configuration
3. governsId: 1.2.840.113556.1.5.12
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: cn
8. systemMayContain: msDS-USNLastSyncSuccess, msDS-ReplAuthenticationMode
9. systemPossSuperiors: domainDNS
10. schemaIdGuid: bf967a87-0de6-11d0-a285-00aa003049e2
11. defaultSecurityDescriptor: D:S:
12. defaultHidingValue: TRUE
13. systemOnly: TRUE
14. defaultObjectCategory: CN=Configuration,<SchemaNCDN>
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class container

This class is used to hold other classes.

1. cn: Container
2. ldapDisplayName: container
3. governsId: 1.2.840.113556.1.3.23
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: cn
8. systemMayContain: schemaVersion
9. possSuperiors: msDS-AzScope, msDS-AzApplication, msDS-AzAdminManager
10. systemPossSuperiors: subnet, server, nTDSService, domainDNS,
11. organization, configuration, container, organizationalUnit
12. schemaIdGuid: bf967a8b-0de6-11d0-a285-00aa003049e2
13. defaultSecurityDescriptor: D:S:
14. defaultHidingValue: TRUE
15. systemOnly: FALSE
16. defaultObjectCategory: CN=Container,<SchemaNCDN>
17. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class controlAccessRight

This class identifies an extended right that can be granted or revoked via an access control list (ACL).

1. cn: Control-Access-Right
2. ldapDisplayName: controlAccessRight
3. governsId: 1.2.840.113556.1.5.77
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: validAccesses, rightsGuid, localizationDisplayId,
8. appliesTo
9. systemPossSuperiors: container
10. schemaIdGuid: 8297931e-86d3-11d0-afda-00c04fd930c9
11. defaultSecurityDescriptor: D:S:
12. defaultHidingValue: TRUE
13. systemOnly: FALSE
14. defaultObjectCategory: CN=Control-Access-Right,<SchemaNCDN>
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class country

This class specifies the country/region in the address of the user. This is the full name.

1. cn: Country
2. ldapDisplayName: country
3. governsId: 2.5.6.2
4. objectClassCategory: 0
5. rdnAttId: c
6. subClassOf: top
7. systemMustContain: c
8. systemMayContain: co, searchGuide
9. systemPossSuperiors: domainDNS, organization
10. schemaIdGuid: bf967a8c-0de6-11d0-a285-00aa003049e2
11. defaultSecurityDescriptor: D:S:
12. defaultHidingValue: TRUE
13. systemOnly: FALSE
14. defaultObjectCategory: CN=Country,<SchemaNCDN>
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class crossRef

This class holds knowledge information about all directory service (DS) naming contexts and all external directories to which referrals can be generated.

1. cn: Cross-Ref
2. ldapDisplayName: crossRef
3. governsId: 1.2.840.113556.1.3.11
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: nCName, cn
8. systemMayContain: trustParent, superiorDNSRoot, rootTrust,
9. nETBIOSName, msDS-Other-Settings, Enabled, msDS-SDReferenceDomain,
10. msDS-Replication-Notify-Subsequent-DSA-Delay,
11. msDS-Replication-Notify-First-DSA-Delay, msDS-NC-Replica-Locations,
12. msDS-DnsRootAlias, msDS-Behavior-Version, dnsRoot
13. systemPossSuperiors: crossRefContainer
14. schemaIdGuid: bf967a8d-0de6-11d0-a285-00aa003049e2
15. defaultSecurityDescriptor: D:S:
16. defaultHidingValue: TRUE
17. systemOnly: FALSE
18. defaultObjectCategory: CN=Cross-Ref,<SchemaNCDN>
19. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class crossRefContainer

This class holds cross-reference objects for all naming contexts.

1. cn: Cross-Ref-Container
2. ldapDisplayName: crossRefContainer
3. governsId: 1.2.840.113556.1.5.7000.53
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: msDS-EnabledFeature, uPNSuffixes, msDS-UpdateScript,
8. msDS-ExecuteScriptPassword, msDS-Behavior-Version
9. systemPossSuperiors: configuration
10. schemaIdGuid: ef9e60e0-56f7-11d1-a9c6-0000f80367c1
11. defaultSecurityDescriptor: D:S:
12. defaultHidingValue: FALSE
13. systemOnly: TRUE
14. defaultObjectCategory: CN=Cross-Ref-Container,<SchemaNCDN>
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class displaySpecifier

This class describes the context menus and property pages to be used with an object in the directory.

1. cn: Display-Specifier
2. ldapDisplayName: displaySpecifier
3. governsId: 1.2.840.113556.1.5.84
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: treatAsLeaf, shellPropertyPages, shellContextMenu,
8. scopeFlags, queryFilter, iconPath, extraColumns, creationWizard,
9. createWizardExt, createDialog, contextMenu, classDisplayName,
10. attributeDisplayNames, adminPropertyPages,
11. adminMultiselectPropertyPages, adminContextMenu
12. systemPossSuperiors: container
13. schemaIdGuid: e0fa1e8a-9b45-11d0-afdd-00c04fd930c9
14. systemOnly: FALSE
15. defaultObjectCategory: CN=Display-Specifier,<SchemaNCDN>

Version-Specific Behavior: First implemented on Windows Server 2008.

## Class dMD

This class specifies the Directory Management Domain. In Active Directory, this is the class that holds the schema.

1. cn: DMD
2. ldapDisplayName: dMD
3. governsId: 1.2.840.113556.1.3.9
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: cn
8. systemMayContain: msDS-USNLastSyncSuccess, schemaUpdate, schemaInfo,
9. prefixMap, msDs-Schema-Extensions, msDS-IntId, dmdName
10. systemPossSuperiors: configuration
11. schemaIdGuid: bf967a8f-0de6-11d0-a285-00aa003049e2
12. defaultSecurityDescriptor: D:S:
13. defaultHidingValue: TRUE
14. systemOnly: TRUE
15. defaultObjectCategory: CN=DMD,<SchemaNCDN>
16. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class domain

This class contains information about a domain.

1. cn: Domain
2. ldapDisplayName: domain
3. governsId: 1.2.840.113556.1.5.66
4. objectClassCategory: 2
5. rdnAttId: dc
6. subClassOf: top
7. systemMustContain: dc
8. systemPossSuperiors: domain, organization
9. schemaIdGuid: 19195a5a-6da0-11d0-afd3-00c04fd930c9
10. defaultHidingValue: TRUE
11. systemOnly: FALSE
12. defaultObjectCategory: CN=Domain-DNS,<SchemaNCDN>
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class domainDNS

This class specifies a Windows NT operating system domain with DNS-based (DC=) naming.

1. cn: Domain-DNS
2. ldapDisplayName: domainDNS
3. governsId: 1.2.840.113556.1.5.67
4. objectClassCategory: 1
5. rdnAttId: dc
6. subClassOf: domain
7. systemMayContain: msDS-EnabledFeature, msDS-USNLastSyncSuccess,
8. msDS-Behavior-Version, msDS-AllowedDNSSuffixes, managedBy
9. systemPossSuperiors: domainDNS
10. schemaIdGuid: 19195a5b-6da0-11d0-afd3-00c04fd930c9
11. defaultSecurityDescriptor: D:S:
12. defaultHidingValue: FALSE
13. systemOnly: FALSE
14. defaultObjectCategory: CN=Domain-DNS,<SchemaNCDN>
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class dSUISettings

This class is used to store configuration settings used by the Active Directory Users and Computers snap-in.

1. cn: DS-UI-Settings
2. ldapDisplayName: dSUISettings
3. governsId: 1.2.840.113556.1.5.183
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: msDS-Security-Group-Extra-Classes,
8. msDS-Non-Security-Group-Extra-Classes, msDS-FilterContainers,
9. dSUIShellMaximum, dSUIAdminNotification, dSUIAdminMaximum
10. systemPossSuperiors: container
11. schemaIdGuid: 09b10f14-6f93-11d2-9905-0000f87a57d4
12. systemOnly: FALSE
13. defaultObjectCategory: CN=DS-UI-Settings,<SchemaNCDN>

Version-Specific Behavior: First implemented on Windows Server 2008.

## Class dynamicObject

If present in an entry, this class indicates that this entry has a limited lifetime and can disappear automatically when its time-to-live has reached 0. If the client has not supplied a value for the entryTtl attribute, the server will provide one.

1. cn: Dynamic-Object
2. ldapDisplayName: dynamicObject
3. governsId: 1.3.6.1.4.1.1466.101.119.2
4. objectClassCategory: 3
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: msDS-Entry-Time-To-Die, entryTTL
8. schemaIdGuid: 66d51249-3355-4c1f-b24e-81f252aca23b
9. defaultSecurityDescriptor: D:S:
10. defaultHidingValue: TRUE
11. systemOnly: FALSE
12. defaultObjectCategory: CN=Dynamic-Object,<SchemaNCDN>
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class foreignSecurityPrincipal

This class specifies the security principal from an external source.

1. cn: Foreign-Security-Principal
2. ldapDisplayName: foreignSecurityPrincipal
3. governsId: 1.2.840.113556.1.5.76
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: objectSid
8. systemPossSuperiors: container
9. schemaIdGuid: 89e31c12-8530-11d0-afda-00c04fd930c9
10. defaultSecurityDescriptor: D:S:
11. defaultHidingValue: TRUE
12. systemOnly: FALSE
13. defaultObjectCategory: CN=Foreign-Security-Principal,<SchemaNCDN>
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class group

This class stores a list of user names. Used to apply security principals on resources.

1. cn: Group
2. ldapDisplayName: group
3. governsId: 1.2.840.113556.1.5.8
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemAuxiliaryClass: securityPrincipal
8. systemMustContain: groupType
9. mayContain: msDS-AzGenericData, msDS-AzObjectGuid,
10. msDS-AzApplicationData, msDS-AzLastImportedBizRulePath,
11. msDS-AzBizRuleLanguage, msDS-AzBizRule, msDS-AzLDAPQuery
12. systemMayContain: msDS-NonMembers, primaryGroupToken, member,
13. managedBy, desktopProfile
14. possSuperiors: msDS-AzScope, msDS-AzApplication, msDS-AzAdminManager
15. systemPossSuperiors: container, organizationalUnit, domainDNS
16. schemaIdGuid: bf967a9c-0de6-11d0-a285-00aa003049e2
17. defaultSecurityDescriptor: D:S:
18. defaultHidingValue: FALSE
19. systemOnly: FALSE
20. defaultObjectCategory: CN=Group,<SchemaNCDN>
21. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class groupOfNames

Group-Of-Names

1. cn: Group-Of-Names
2. ldapDisplayName: groupOfNames
3. governsId: 2.5.6.9
4. objectClassCategory: 0
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: cn
8. systemMayContain: member, businessCategory, o, ou, owner, seeAlso
9. systemPossSuperiors: container, organization, locality,
10. organizationalUnit
11. schemaIdGuid: bf967a9d-0de6-11d0-a285-00aa003049e2
12. defaultSecurityDescriptor: D:S:
13. defaultHidingValue: TRUE
14. systemOnly: FALSE
15. defaultObjectCategory: CN=Group-Of-Names,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class inetOrgPerson

This class represents people who are associated with an organization in some way.

1. cn: inetOrgPerson
2. ldapDisplayName: inetOrgPerson
3. governsId: 2.16.840.1.113730.3.2.2
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: user
7. mayContain: audio, businessCategory, carLicense, departmentNumber,
8. displayName, employeeNumber, employeeType, givenName, homePhone,
9. homePostalAddress, initials, jpegPhoto, labeledURI, mail, manager,
10. mobile, o, pager, photo, preferredLanguage, roomNumber, secretary,
11. uid, userCertificate, userPKCS12, userSMIMECertificate,
12. x500uniqueIdentifier
13. possSuperiors: container, organizationalUnit, domainDNS
14. schemaIdGuid: 4828cc14-1437-45bc-9b07-ad6f015e5f28
15. defaultSecurityDescriptor:
16. D:(OA;;CR;ab721a53-1e2f-11d0-9819-00aa0040529b;;PS)S:
17. showInAdvancedViewOnly: FALSE
18. defaultHidingValue: FALSE
19. systemOnly: FALSE
20. defaultObjectCategory: CN=Person,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class interSiteTransport

This class specifies an optional attribute of [nTDSConnection](#Section_dc0bebacee8d44a4b27c5a77dd7f8d57) objects. If present, it holds the DN of an interSiteTransport object in the CN=Inter-Site Transports,CN=Sites,CN=Configuration,... container.

1. cn: Inter-Site-Transport
2. ldapDisplayName: interSiteTransport
3. governsId: 1.2.840.113556.1.5.141
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: transportDLLName, transportAddressAttribute
8. systemMayContain: replInterval, options
9. systemPossSuperiors: interSiteTransportContainer
10. schemaIdGuid: 26d97376-6070-11d1-a9c6-0000f80367c1
11. defaultSecurityDescriptor: D:S:
12. defaultHidingValue: TRUE
13. systemOnly: FALSE
14. defaultObjectCategory: CN=Inter-Site-Transport,<SchemaNCDN>
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class interSiteTransportContainer

This class holds Inter-Site-Transport objects.

1. cn: Inter-Site-Transport-Container
2. ldapDisplayName: interSiteTransportContainer
3. governsId: 1.2.840.113556.1.5.140
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemPossSuperiors: sitesContainer
8. schemaIdGuid: 26d97375-6070-11d1-a9c6-0000f80367c1
9. defaultSecurityDescriptor: D:S:
10. defaultHidingValue: TRUE
11. systemOnly: FALSE
12. defaultObjectCategory: CN=Inter-Site-Transport-Container,<SchemaNCDN>
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class leaf

This class is the base class for leaf objects.

1. cn: Leaf
2. ldapDisplayName: leaf
3. governsId: 1.2.840.113556.1.5.20
4. objectClassCategory: 2
5. rdnAttId: cn
6. subClassOf: top
7. schemaIdGuid: bf967a9e-0de6-11d0-a285-00aa003049e2
8. defaultSecurityDescriptor: D:S:
9. defaultHidingValue: TRUE
10. systemOnly: FALSE
11. defaultObjectCategory: CN=Leaf,<SchemaNCDN>
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class locality

This class contains a locality, such as a street address, city, and state.

1. cn: Locality
2. ldapDisplayName: locality
3. governsId: 2.5.6.3
4. objectClassCategory: 1
5. rdnAttId: l
6. subClassOf: top
7. systemMustContain: l
8. systemMayContain: street, st, seeAlso, searchGuide
9. systemPossSuperiors: domainDNS, country, organizationalUnit,
10. organization, locality
11. schemaIdGuid: bf967aa0-0de6-11d0-a285-00aa003049e2
12. defaultSecurityDescriptor: D:S:
13. defaultHidingValue: FALSE
14. systemOnly: FALSE
15. defaultObjectCategory: CN=Locality,<SchemaNCDN>
16. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class lostAndFound

This class is a special container for orphaned objects.

1. cn: Lost-And-Found
2. ldapDisplayName: lostAndFound
3. governsId: 1.2.840.113556.1.5.139
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: moveTreeState
8. systemPossSuperiors: configuration, domainDNS, dMD
9. schemaIdGuid: 52ab8671-5709-11d1-a9c6-0000f80367c1
10. defaultSecurityDescriptor: D:S:
11. defaultHidingValue: TRUE
12. systemOnly: FALSE
13. defaultObjectCategory: CN=Lost-And-Found,<SchemaNCDN>
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class msDS-AzAdminManager

This class specifies the root of Authorization Policy store instance.

1. cn: ms-DS-Az-Admin-Manager
2. ldapDisplayName: msDS-AzAdminManager
3. governsId: 1.2.840.113556.1.5.234
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. mayContain: msDS-AzGenericData, msDS-AzObjectGuid
8. systemMayContain: description, msDS-AzMinorVersion,
9. msDS-AzMajorVersion, msDS-AzDomainTimeout,
10. msDS-AzScriptEngineCacheMax, msDS-AzScriptTimeout,
11. msDS-AzGenerateAudits, msDS-AzApplicationData
12. systemPossSuperiors: container, organizationalUnit, domainDNS
13. schemaIdGuid: cfee1051-5f28-4bae-a863-5d0cc18a8ed1
14. defaultSecurityDescriptor: D:(A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;DA)
15. (A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;SY)(A;;RPLCLORC;;;AU)
16. (A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;CO)
17. defaultHidingValue: TRUE
18. systemOnly: FALSE
19. defaultObjectCategory: CN=ms-DS-Az-Admin-Manager,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class msDS-AzApplication

This class defines an installed instance of an application that is bound to a particular policy store.

1. cn: ms-DS-Az-Application
2. ldapDisplayName: msDS-AzApplication
3. governsId: 1.2.840.113556.1.5.235
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. mayContain: msDS-AzGenericData, msDS-AzObjectGuid
8. systemMayContain: description, msDS-AzApplicationName,
9. msDS-AzClassId, msDS-AzApplicationVersion, msDS-AzGenerateAudits,
10. msDS-AzApplicationData
11. systemPossSuperiors: msDS-AzAdminManager
12. schemaIdGuid: ddf8de9b-cba5-4e12-842e-28d8b66f75ec
13. defaultSecurityDescriptor: D:(A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;DA)
14. (A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;SY)(A;;RPLCLORC;;;AU)
15. (A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;CO)
16. defaultHidingValue: TRUE
17. systemOnly: FALSE
18. defaultObjectCategory: CN=ms-DS-Az-Application,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class msDS-AzOperation

This class describes a particular operation supported by an application.

1. cn: ms-DS-Az-Operation
2. ldapDisplayName: msDS-AzOperation
3. governsId: 1.2.840.113556.1.5.236
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: msDS-AzOperationID
8. mayContain: msDS-AzGenericData, msDS-AzObjectGuid
9. systemMayContain: description, msDS-AzApplicationData
10. systemPossSuperiors: container, msDS-AzApplication
11. schemaIdGuid: 860abe37-9a9b-4fa4-b3d2-b8ace5df9ec5
12. defaultSecurityDescriptor: D:(A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;DA)
13. (A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;SY)(A;;RPLCLORC;;;AU)
14. (A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;CO)
15. defaultHidingValue: TRUE
16. systemOnly: FALSE
17. defaultObjectCategory: CN=ms-DS-Az-Operation,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class msDS-AzRole

This class defines a set of operations that can be performed by a particular set of users within a particular scope.

1. cn: ms-DS-Az-Role
2. ldapDisplayName: msDS-AzRole
3. governsId: 1.2.840.113556.1.5.239
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. mayContain: msDS-AzGenericData, msDS-AzObjectGuid
8. systemMayContain: description, msDS-MembersForAzRole,
9. msDS-OperationsForAzRole, msDS-TasksForAzRole, msDS-AzApplicationData
10. systemPossSuperiors: container, msDS-AzApplication, msDS-AzScope
11. schemaIdGuid: 8213eac9-9d55-44dc-925c-e9a52b927644
12. defaultSecurityDescriptor: D:(A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;DA)
13. (A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;SY)(A;;RPLCLORC;;;AU)
14. (A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;CO)
15. defaultHidingValue: TRUE
16. systemOnly: FALSE
17. defaultObjectCategory: CN=ms-DS-Az-Role,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class msDS-AzScope

This class describes a set of objects that is managed by an application.

1. cn: ms-DS-Az-Scope
2. ldapDisplayName: msDS-AzScope
3. governsId: 1.2.840.113556.1.5.237
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: msDS-AzScopeName
8. mayContain: msDS-AzGenericData, msDS-AzObjectGuid
9. systemMayContain: description, msDS-AzApplicationData
10. systemPossSuperiors: msDS-AzApplication
11. schemaIdGuid: 4feae054-ce55-47bb-860e-5b12063a51de
12. defaultSecurityDescriptor: D:(A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;DA)
13. (A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;SY)(A;;RPLCLORC;;;AU)
14. (A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;CO)
15. defaultHidingValue: TRUE
16. systemOnly: FALSE
17. defaultObjectCategory: CN=ms-DS-Az-Scope,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class msDS-AzTask

This class describes a set of operations.

1. cn: ms-DS-Az-Task
2. ldapDisplayName: msDS-AzTask
3. governsId: 1.2.840.113556.1.5.238
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. mayContain: msDS-AzGenericData, msDS-AzObjectGuid
8. systemMayContain: description, msDS-AzBizRule,
9. msDS-AzBizRuleLanguage, msDS-AzLastImportedBizRulePath,
10. msDS-AzTaskIsRoleDefinition, msDS-AzApplicationData,
11. msDS-OperationsForAzTask, msDS-TasksForAzTask
12. systemPossSuperiors: container, msDS-AzApplication, msDS-AzScope
13. schemaIdGuid: 1ed3a473-9b1b-418a-bfa0-3a37b95a5306
14. defaultSecurityDescriptor: D:(A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;DA)
15. (A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;SY)(A;;RPLCLORC;;;AU)
16. (A;;RPWPCRCCDCLCLORCWOWDSDDTSW;;;CO)
17. defaultHidingValue: TRUE
18. systemOnly: FALSE
19. defaultObjectCategory: CN=ms-DS-Az-Task,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class msDS-BindableObject

This class specifies an auxiliary class to represent a bindable object. Any user-defined class that represents an entity that can be used to bind to the directory (that is, a user) includes this auxiliary class.

1. cn: ms-DS-Bindable-Object
2. ldapDisplayName: msDS-BindableObject
3. governsId: 1.2.840.113556.1.5.244
4. objectClassCategory: 3
5. rdnAttId: cn
6. subClassOf: securityPrincipal
7. systemMayContain: lastLogonTimestamp, accountExpires,
8. msDS-User-Account-Control-Computed, ms-DS-UserAccountAutoLocked,
9. msDS-UserPasswordExpired, ms-DS-UserEncryptedTextPasswordAllowed,
10. ms-DS-UserPasswordNotRequired, msDS-UserAccountDisabled,
11. msDS-UserDontExpirePassword, ntPwdHistory, lockoutTime, badPwdCount,
12. badPasswordTime, pwdLastSet, unicodePwd
13. schemaIdGuid: 89f4a69f-4416-6b49-821d-6e3c4a0ff802
14. defaultHidingValue: TRUE
15. systemOnly: FALSE
16. defaultObjectCategory: CN=ms-DS-Bindable-Object,<SchemaNCDN>
17. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class msDS-BindProxy

This class specifies an auxiliary class to represent a bind proxy in AD LDS. A bind proxy references a Windows security principal via its [objectSid](#Section_789fbfb52ddb41218126e594a9a9ecaf) attribute. When a user performs a simple bind against a bind-proxy object, the bind is redirected to the corresponding Windows principal.

1. cn: ms-DS-Bind-Proxy
2. ldapDisplayName: msDS-BindProxy
3. governsId: 1.2.840.113556.1.5.245
4. objectClassCategory: 3
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: objectSid
8. systemMayContain: msDS-PrincipalName
9. schemaIdGuid: 717532ab-66e9-684d-a62b-8af1e3985e2f
10. defaultHidingValue: TRUE
11. systemOnly: FALSE
12. defaultObjectCategory: CN=ms-DS-Bind-Proxy,<SchemaNCDN>
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class msDS-OptionalFeature

This class defines the configuration object for an optional feature.

1. cn: ms-DS-Optional-Feature
2. ldapDisplayName: msDS-OptionalFeature
3. governsId: 1.2.840.113556.1.5.265
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: msDS-OptionalFeatureFlags, msDS-OptionalFeatureGUID
8. systemMayContain: msDS-RequiredDomainBehaviorVersion,
9. msDS-RequiredForestBehaviorVersion
10. systemPossSuperiors: container
11. schemaIdGuid: 44f00041-35af-468b-b20a-6ce8737c580b
12. defaultSecurityDescriptor: D:(A;;RPLCLORC;;;AU)
13. (A;;RPWPCRLCLOCCDCRCWDWOSDDTSW;;;EA)
14. (A;;RPWPCRLCLOCCDCRCWDWOSDDTSW;;;CO)
15. (A;;RPWPCRLCLOCCDCRCWDWOSDDTSW;;;SY)
16. defaultHidingValue: TRUE
17. systemOnly: TRUE
18. defaultObjectCategory: CN=ms-DS-Optional-Feature,<SchemaNCDN>
19. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on Windows Server 2008 R2 operating system.

## Class msDS-QuotaContainer

This class specifies a special container that holds all quota specifications for the directory database.

1. cn: ms-DS-Quota-Container
2. ldapDisplayName: msDS-QuotaContainer
3. governsId: 1.2.840.113556.1.5.242
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: cn
8. systemMayContain: msDS-TopQuotaUsage, msDS-QuotaUsed,
9. msDS-QuotaEffective, msDS-TombstoneQuotaFactor, msDS-DefaultQuota
10. systemPossSuperiors: configuration, domainDNS
11. schemaIdGuid: da83fc4f-076f-4aea-b4dc-8f4dab9b5993
12. defaultSecurityDescriptor: D:S:
13. defaultHidingValue: TRUE
14. systemOnly: FALSE
15. defaultObjectCategory: CN=ms-DS-Quota-Container,<SchemaNCDN>
16. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class msDS-QuotaControl

This class is used to represent quota specifications for the directory database.

1. cn: ms-DS-Quota-Control
2. ldapDisplayName: msDS-QuotaControl
3. governsId: 1.2.840.113556.1.5.243
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: msDS-QuotaAmount, msDS-QuotaTrustee, cn
8. systemPossSuperiors: msDS-QuotaContainer
9. schemaIdGuid: de91fc26-bd02-4b52-ae26-795999e96fc7
10. defaultSecurityDescriptor: D:S:
11. defaultHidingValue: TRUE
12. systemOnly: FALSE
13. defaultObjectCategory: CN=ms-DS-Quota-Control,<SchemaNCDN>
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class msDS-ServiceConnectionPointPublicationService

This class stores configuration options for the SCP publication service in AD LDS.

1. cn: ms-DS-Service-Connection-Point-Publication-Service
2. ldapDisplayName: msDS-ServiceConnectionPointPublicationService
3. governsId: 1.2.840.113556.1.5.247
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: Enabled, msDS-SCPContainer,
8. msDS-DisableForInstances, keywords
9. systemPossSuperiors: nTDSService
10. schemaIdGuid: d33f5da6-b009-7e48-8268-b2305529e933
11. defaultSecurityDescriptor: D:S:
12. defaultHidingValue: TRUE
13. systemOnly: TRUE
14. defaultObjectCategory:
15. CN=ms-DS-Service-Connection-Point-Publication-Service,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class nTDSConnection

This class specifies a connection from a remote domain controller (DC).

1. cn: NTDS-Connection
2. ldapDisplayName: nTDSConnection
3. governsId: 1.2.840.113556.1.5.71
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: leaf
7. systemMustContain: options, fromServer, enabledConnection
8. systemMayContain: transportType, schedule, mS-DS-ReplicatesNCReason,
9. generatedConnection
10. systemPossSuperiors: nTDSDSA
11. schemaIdGuid: 19195a60-6da0-11d0-afd3-00c04fd930c9
12. defaultSecurityDescriptor: D:S:
13. defaultHidingValue: TRUE
14. systemOnly: FALSE
15. defaultObjectCategory: CN=NTDS-Connection,<SchemaNCDN>
16. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class nTDSDSA

This class represents the Active Directory DSA process on the server.

1. cn: NTDS-DSA
2. ldapDisplayName: nTDSDSA
3. governsId: 1.2.840.113556.1.5.7000.47
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: applicationSettings
7. systemMayContain: msDS-DefaultNamingContext, serverReference,
8. msDS-RetiredReplNCSignatures, retiredReplDSASignatures,
9. queryPolicyObject, options, networkAddress, msDS-ServiceAccount,
10. msDS-ServiceAccountDNSDomain, msDS-PortSSL, msDS-PortLDAP,
11. msDS-ReplicationEpoch, msDS-HasInstantiatedNCs, msDS-hasMasterNCs,
12. msDS-HasDomainNCs, msDS-Behavior-Version, managedBy,
13. lastBackupRestorationTime, invocationId, hasPartialReplicaNCs,
14. hasMasterNCs, dMDLocation, msDS-EnabledFeature
15. systemPossSuperiors: organization, server
16. schemaIdGuid: f0f8ffab-1191-11d0-a060-00aa006c33ed
17. defaultSecurityDescriptor: D:S:
18. defaultHidingValue: TRUE
19. systemOnly: TRUE
20. defaultObjectCategory: CN=NTDS-DSA,<SchemaNCDN>
21. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class nTDSService

This class is used for an NTDS services object, which contains information about the configuration of the directory service forest. This object is kept in the CN=Directory Service,CN=Windows NT,CN=Services,CN=Configuration,... container.

1. cn: NTDS-Service
2. ldapDisplayName: nTDSService
3. governsId: 1.2.840.113556.1.5.72
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: msDS-DeletedObjectLifetime, tombstoneLifetime,
8. replTopologyStayOfExecution, msDS-Other-Settings, garbageCollPeriod,
9. dSHeuristics
10. systemPossSuperiors: container
11. schemaIdGuid: 19195a5f-6da0-11d0-afd3-00c04fd930c9
12. defaultSecurityDescriptor: D:S:
13. defaultHidingValue: TRUE
14. systemOnly: FALSE
15. defaultObjectCategory: CN=NTDS-Service,<SchemaNCDN>
16. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class nTDSSiteSettings

This class specifies a container for holding all Active Directory site-specific settings.

1. cn: NTDS-Site-Settings
2. ldapDisplayName: nTDSSiteSettings
3. governsId: 1.2.840.113556.1.5.69
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: applicationSiteSettings
7. systemMayContain: schedule, queryPolicyObject, options,
8. msDS-Preferred-GC-Site, managedBy, interSiteTopologyRenew,
9. interSiteTopologyGenerator, interSiteTopologyFailover
10. systemPossSuperiors: site
11. schemaIdGuid: 19195a5d-6da0-11d0-afd3-00c04fd930c9
12. defaultSecurityDescriptor: D:S:
13. defaultHidingValue: TRUE
14. systemOnly: FALSE
15. defaultObjectCategory: CN=NTDS-Site-Settings,<SchemaNCDN>
16. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class organizationalPerson

This class is used for objects that contain organizational information about a user, such as the employee number, department, manager, title, and office address.

1. cn: Organizational-Person
2. ldapDisplayName: organizationalPerson
3. governsId: 2.5.6.7
4. objectClassCategory: 0
5. rdnAttId: cn
6. subClassOf: person
7. mayContain: homePostalAddress, houseIdentifier
8. systemMayContain: streetAddress, assistant, company, countryCode,
9. c, department, destinationIndicator, division, mail, employeeID,
10. facsimileTelephoneNumber, generationQualifier, givenName, initials,
11. internationalISDNNumber, l, thumbnailLogo, manager, o, ou,
12. middleName, personalTitle, otherFacsimileTelephoneNumber, homePhone,
13. otherHomePhone, otherIpPhone, ipPhone,
14. primaryInternationalISDNNumber, otherMobile, mobile, otherTelephone,
15. otherPager, pager, physicalDeliveryOfficeName, thumbnailPhoto,
16. postOfficeBox, postalAddress, postalCode, preferredDeliveryMethod,
17. registeredAddress, st, street, teletexTerminalIdentifier,
18. telexNumber, primaryTelexNumber, co, title, comment, x121Address
19. systemPossSuperiors: container, organization, organizationalUnit
20. schemaIdGuid: bf967aa4-0de6-11d0-a285-00aa003049e2
21. defaultSecurityDescriptor: D:S:
22. defaultHidingValue: TRUE
23. systemOnly: FALSE
24. defaultObjectCategory: CN=Person,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class organization

This class stores information about a company or organization.

1. cn: Organization
2. ldapDisplayName: organization
3. governsId: 2.5.6.4
4. objectClassCategory: 1
5. rdnAttId: o
6. subClassOf: top
7. systemMustContain: o
8. systemMayContain: x121Address, userPassword, telexNumber,
9. teletexTerminalIdentifier, telephoneNumber, street, st, seeAlso,
10. searchGuide, registeredAddress, preferredDeliveryMethod, postalCode,
11. postalAddress, postOfficeBox, physicalDeliveryOfficeName, l,
12. internationalISDNNumber, facsimileTelephoneNumber,
13. destinationIndicator, businessCategory
14. systemPossSuperiors: locality, country, domainDNS
15. schemaIdGuid: bf967aa3-0de6-11d0-a285-00aa003049e2
16. defaultSecurityDescriptor: D:S:
17. defaultHidingValue: FALSE
18. systemOnly: FALSE
19. defaultObjectCategory: CN=Organization,<SchemaNCDN>
20. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class organizationalUnit

This class specifies a container for storing users, computers, and other account objects.

1. cn: Organizational-Unit
2. ldapDisplayName: organizationalUnit
3. governsId: 2.5.6.5
4. objectClassCategory: 1
5. rdnAttId: ou
6. subClassOf: top
7. systemMustContain: ou
8. systemMayContain: x121Address, userPassword, uPNSuffixes, co,
9. telexNumber, teletexTerminalIdentifier, telephoneNumber, street, st,
10. seeAlso, searchGuide, registeredAddress, preferredDeliveryMethod,
11. postalCode, postalAddress, postOfficeBox,
12. physicalDeliveryOfficeName, managedBy, thumbnailLogo, l,
13. internationalISDNNumber, facsimileTelephoneNumber,
14. destinationIndicator, desktopProfile, defaultGroup, countryCode, c,
15. businessCategory
16. systemPossSuperiors: country, organization, organizationalUnit,
17. domainDNS
18. schemaIdGuid: bf967aa5-0de6-11d0-a285-00aa003049e2
19. defaultSecurityDescriptor: D:S:
20. defaultHidingValue: FALSE
21. systemOnly: FALSE
22. defaultObjectCategory: CN=Organizational-Unit,<SchemaNCDN>
23. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class person

This class contains personal information about a user.

1. cn: Person
2. ldapDisplayName: person
3. governsId: 2.5.6.6
4. objectClassCategory: 0
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: cn
8. mayContain: attributeCertificateAttribute
9. systemMayContain: seeAlso, serialNumber, sn, telephoneNumber,
10. userPassword
11. systemPossSuperiors: container, organizationalUnit
12. schemaIdGuid: bf967aa7-0de6-11d0-a285-00aa003049e2
13. defaultSecurityDescriptor: D:S:
14. defaultHidingValue: TRUE
15. systemOnly: FALSE
16. defaultObjectCategory: CN=Person,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class queryPolicy

This class holds administrative limits for LDAP server resources for sorted and paged results.

1. cn: Query-Policy
2. ldapDisplayName: queryPolicy
3. governsId: 1.2.840.113556.1.5.106
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: lDAPIPDenyList, lDAPAdminLimits
8. systemPossSuperiors: container
9. schemaIdGuid: 83cc7075-cca7-11d0-afff-0000f80367c1
10. defaultSecurityDescriptor: D:S:
11. defaultHidingValue: TRUE
12. systemOnly: FALSE
13. defaultObjectCategory: CN=Query-Policy,<SchemaNCDN>
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class securityPrincipal

This class contains the security information for an object.

1. cn: Security-Principal
2. ldapDisplayName: securityPrincipal
3. governsId: 1.2.840.113556.1.5.6
4. objectClassCategory: 3
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: objectSid
8. systemMayContain: supplementalCredentials, tokenGroups,
9. nTSecurityDescriptor
10. schemaIdGuid: bf967ab0-0de6-11d0-a285-00aa003049e2
11. defaultHidingValue: TRUE
12. systemOnly: FALSE
13. defaultObjectCategory: CN=Security-Principal,<SchemaNCDN>
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class server

This class represents a server computer within a site.

1. cn: Server
2. ldapDisplayName: server
3. governsId: 1.2.840.113556.1.5.17
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: mailAddress, serverReference, managedBy,
8. nETBIOSName, dNSHostName, bridgeheadTransportList
9. systemPossSuperiors: serversContainer
10. schemaIdGuid: bf967a92-0de6-11d0-a285-00aa003049e2
11. defaultSecurityDescriptor: D:S:
12. defaultHidingValue: TRUE
13. systemOnly: FALSE
14. defaultObjectCategory: CN=Server,<SchemaNCDN>
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class serversContainer

This class holds server objects within a site.

1. cn: Servers-Container
2. ldapDisplayName: serversContainer
3. governsId: 1.2.840.113556.1.5.7000.48
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemPossSuperiors: site
8. schemaIdGuid: f780acc0-56f0-11d1-a9c6-0000f80367c1
9. defaultSecurityDescriptor: D:S:
10. defaultHidingValue: TRUE
11. systemOnly: FALSE
12. defaultObjectCategory: CN=Servers-Container,<SchemaNCDN>
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class site

This class specifies a container for storing server objects. This class represents a physical location containing computers; it is used to manage replication.

1. cn: Site
2. ldapDisplayName: site
3. governsId: 1.2.840.113556.1.5.31
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: msDS-BridgeHeadServersUsed, notificationList,
8. managedBy, location
9. systemPossSuperiors: sitesContainer
10. schemaIdGuid: bf967ab3-0de6-11d0-a285-00aa003049e2
11. defaultSecurityDescriptor: D:S:
12. defaultHidingValue: TRUE
13. systemOnly: FALSE
14. defaultObjectCategory: CN=Site,<SchemaNCDN>
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class siteLink

This object represents the connection between two sites.

1. cn: Site-Link
2. ldapDisplayName: siteLink
3. governsId: 1.2.840.113556.1.5.147
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: siteList
8. systemMayContain: schedule, replInterval, options, cost
9. systemPossSuperiors: interSiteTransport
10. schemaIdGuid: d50c2cde-8951-11d1-aebc-0000f80367c1
11. defaultSecurityDescriptor: D:S:
12. defaultHidingValue: FALSE
13. systemOnly: FALSE
14. defaultObjectCategory: CN=Site-Link,<SchemaNCDN>
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class siteLinkBridge

This class specifies an object for tracking the site links that are transitively connected.

1. cn: Site-Link-Bridge
2. ldapDisplayName: siteLinkBridge
3. governsId: 1.2.840.113556.1.5.148
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: siteLinkList
8. systemPossSuperiors: interSiteTransport
9. schemaIdGuid: d50c2cdf-8951-11d1-aebc-0000f80367c1
10. defaultSecurityDescriptor: D:S:
11. defaultHidingValue: FALSE
12. systemOnly: FALSE
13. defaultObjectCategory: CN=Site-Link-Bridge,<SchemaNCDN>
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class sitesContainer

This class specifies a container for storing site objects. Located in the configuration naming context.

1. cn: Sites-Container
2. ldapDisplayName: sitesContainer
3. governsId: 1.2.840.113556.1.5.107
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemPossSuperiors: configuration
8. schemaIdGuid: 7a4117da-cd67-11d0-afff-0000f80367c1
9. defaultSecurityDescriptor: D:S:
10. defaultHidingValue: TRUE
11. systemOnly: FALSE
12. defaultObjectCategory: CN=Sites-Container,<SchemaNCDN>
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class subnet

This class represents a specific subnet in the network to which servers and workstations are attached.

1. cn: Subnet
2. ldapDisplayName: subnet
3. governsId: 1.2.840.113556.1.5.96
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: siteObject, location
8. systemPossSuperiors: subnetContainer
9. schemaIdGuid: b7b13124-b82e-11d0-afee-0000f80367c1
10. defaultSecurityDescriptor: D:S:
11. defaultHidingValue: TRUE
12. systemOnly: FALSE
13. defaultObjectCategory: CN=Subnet,<SchemaNCDN>
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class subnetContainer

This class specifies a container for holding all subnet objects.

1. cn: Subnet-Container
2. ldapDisplayName: subnetContainer
3. governsId: 1.2.840.113556.1.5.95
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemPossSuperiors: sitesContainer
8. schemaIdGuid: b7b13125-b82e-11d0-afee-0000f80367c1
9. defaultSecurityDescriptor: D:S:
10. defaultHidingValue: TRUE
11. systemOnly: FALSE
12. defaultObjectCategory: CN=Subnet-Container,<SchemaNCDN>
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class subSchema

This class contains the schema definition.

1. cn: SubSchema
2. ldapDisplayName: subSchema
3. governsId: 2.5.20.1
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: objectClasses, modifyTimeStamp, extendedClassInfo,
8. extendedAttributeInfo, dITContentRules, attributeTypes
9. systemPossSuperiors: dMD
10. schemaIdGuid: 5a8b3261-c38d-11d1-bbc9-0080c76670c0
11. defaultSecurityDescriptor: D:S:
12. defaultHidingValue: TRUE
13. systemOnly: TRUE
14. defaultObjectCategory: CN=SubSchema,<SchemaNCDN>
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_DOMAIN\_DISALLOW\_RENAME

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class syncEngineAuxConfiguration

ms-DS-Sync-Engine-Aux-Configuration

1. cn: ms-DS-Sync-Engine-Aux-Configuration
2. ldapDisplayName: syncEngineAuxConfiguration
3. governsId: 1.2.840.113556.1.4.1891
4. objectClassCategory: 3
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: configurationFile
8. systemOnly: FALSE
9. defaultObjectCategory: CN=ms-DS-Sync-Engine-Aux-Configuration,
10. <SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class syncEngineAuxObject

ms-DS-Sync-Engine-Aux-Object

1. cn: ms-DS-Sync-Engine-Aux-Object
2. ldapDisplayName: syncEngineAuxObject
3. governsId: 1.2.840.113556.1.4.1890
4. objectClassCategory: 3
5. rdnAttId: cn
6. subClassOf: top
7. systemMayContain: nonIndexedMetadata, lastAgedChange,
8. configurationFileGuid, sourceObjectGuid
9. systemOnly: FALSE
10. defaultObjectCategory: CN=ms-DS-Sync-Engine-Aux-Object,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class top

This class is the top-level class from which all classes are derived.

1. cn: Top
2. ldapDisplayName: top
3. governsId: 2.5.6.0
4. objectClassCategory: 2
5. rdnAttId: cn
6. subClassOf: top
7. systemMustContain: objectClass, objectCategory, nTSecurityDescriptor,
8. instanceType
9. mayContain: directReports, ownerBL, msDS-TasksForAzRoleBL,
10. msDS-OperationsForAzRoleBL, msDS-TasksForAzTaskBL,
11. msDS-OperationsForAzTaskBL
12. systemMayContain: msDS-EnabledFeatureBL, msDS-LastKnownRDN,
13. msDS-LocalEffectiveRecycleTime, msDS-LocalEffectiveDeletionTime,
14. isRecycled, url, wWWHomePage, whenCreated, whenChanged,
15. wellKnownObjects, wbemPath, uSNSource, uSNLastObjRem, USNIntersite,
16. uSNDSALastObjRemoved, uSNCreated, uSNChanged, systemFlags,
17. subSchemaSubEntry, subRefs, structuralObjectClass, siteObjectBL,
18. serverReferenceBL, sDRightsEffective, revision, repsTo, repsFrom,
19. replUpToDateVector, replPropertyMetaData, name, queryPolicyBL,
20. proxyAddresses, proxiedObjectName, possibleInferiors,
21. partialAttributeSet, partialAttributeDeletionList,
22. otherWellKnownObjects, objectVersion, objectGUID, distinguishedName,
23. msDS-DisableForInstancesBL, msDS-ServiceAccountBL,
24. msDS-ReplValueMetaData, msDS-ReplAttributeMetaData,
25. msDS-NCReplOutboundNeighbors, msDS-NCReplInboundNeighbors,
26. msDS-NCReplCursors, msDS-NonMembersBL, msDS-MembersForAzRoleBL,
27. msDs-masteredBy, msDS-DefaultNamingContextBL, mS-DS-ConsistencyGuid,
28. mS-DS-ConsistencyChildCount, msDS-Approx-Immed-Subordinates,
29. modifyTimeStamp, masteredBy, managedObjects, lastKnownParent,
30. memberOf, isDeleted, isCriticalSystemObject, showInAdvancedViewOnly,
31. fSMORoleOwner, fromEntry, dSASignature, dSCorePropagationData,
32. displayName, description, createTimeStamp, cn, canonicalName,
33. bridgeheadServerListBL, allowedChildClassesEffective,
34. allowedChildClasses, allowedAttributesEffective, allowedAttributes,
35. adminDisplayName, adminDescription, msds-memberOfTransitive,
36. msds-memberTransitive, msDS-parentdistname, msDS-ReplValueMetaDataExt
37. systemPossSuperiors: lostAndFound
38. schemaIdGuid: bf967ab7-0de6-11d0-a285-00aa003049e2
39. defaultSecurityDescriptor: D:S:
40. defaultHidingValue: TRUE
41. systemOnly: TRUE
42. defaultObjectCategory: CN=Top,<SchemaNCDN>
43. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class userProxy

This class is the sample class for bind proxy implementation.

1. cn: User-Proxy
2. ldapDisplayName: userProxy
3. governsId: 1.2.840.113556.1.5.246
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: top
7. systemAuxiliaryClass: msDS-BindProxy
8. systemMayContain: userPrincipalName
9. possSuperiors: organization, container, organizationalUnit, domainDNS
10. schemaIdGuid: 60d6186f-f3b6-4898-b0ad-6535afc07620
11. defaultSecurityDescriptor:
12. D:(OA;;CR;ab721a53-1e2f-11d0-9819-00aa0040529b;;PS)S:
13. defaultHidingValue: TRUE
14. systemOnly: FALSE
15. defaultObjectCategory: CN=User-Proxy,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class userProxyFull

This class is the sample user proxy class with the same properties as the native user class.

1. cn: User-Proxy-Full
2. ldapDisplayName: userProxyFull
3. governsId: 1.2.840.113556.1.5.248
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: organizationalPerson
7. systemAuxiliaryClass: msDS-BindProxy
8. mayContain: audio, carLicense, departmentNumber, displayName,
9. employeeNumber, employeeType, givenName, homePostalAddress,
10. jpegPhoto, labeledURI, photo, preferredLanguage, roomNumber,
11. secretary, uid, userPKCS12, userSMIMECertificate,
12. x500uniqueIdentifier
13. systemMayContain: defaultClassStore, dynamicLDAPServer,
14. lastLogonTimestamp, preferredOU, userParameters, userPrincipalName,
15. userCertificate, businessCategory, homePhone, initials, mail,
16. manager, mobile, o, pager
17. systemPossSuperiors: domainDNS, organizationalUnit
18. schemaIdGuid: 2210527a-eb01-4ff0-b883-186f40a92979
19. defaultSecurityDescriptor:
20. D:(OA;;CR;ab721a53-1e2f-11d0-9819-00aa0040529b;;PS)S:
21. defaultHidingValue: FALSE
22. systemOnly: FALSE
23. defaultObjectCategory: CN=Person,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

## Class user

This class is used to store information about an employee or contractor who works for an organization. It is also possible to apply this class to long-term visitors.

1. cn: User
2. ldapDisplayName: user
3. governsId: 1.2.840.113556.1.5.9
4. objectClassCategory: 1
5. rdnAttId: cn
6. subClassOf: organizationalPerson
7. systemAuxiliaryClass: msDS-BindableObject, securityPrincipal
8. mayContain: audio, carLicense, departmentNumber, displayName,
9. employeeNumber, employeeType, givenName, homePostalAddress,
10. jpegPhoto, labeledURI, photo, preferredLanguage, roomNumber,
11. secretary, uid, userPKCS12, userSMIMECertificate,
12. x500uniqueIdentifier
13. systemMayContain: defaultClassStore, dynamicLDAPServer,
14. lastLogonTimestamp, preferredOU, userParameters, userPrincipalName,
15. userCertificate, businessCategory, homePhone, initials, mail,
16. manager, mobile, o, pager
17. systemPossSuperiors: domainDNS, organizationalUnit
18. schemaIdGuid: bf967aba-0de6-11d0-a285-00aa003049e2
19. defaultSecurityDescriptor:
20. D:(OA;;CR;ab721a53-1e2f-11d0-9819-00aa0040529b;;PS)S:
21. defaultHidingValue: FALSE
22. systemOnly: FALSE
23. defaultObjectCategory: CN=Person,<SchemaNCDN>

Version-Specific Behavior: First implemented on ADAM and Windows Server 2008.

# Change Tracking

This section identifies changes that were made to this document since the last release. Changes are classified as Major, Minor, or None.

The revision class **Major** means that the technical content in the document was significantly revised. Major changes affect protocol interoperability or implementation. Examples of major changes are:

* A document revision that incorporates changes to interoperability requirements.
* A document revision that captures changes to protocol functionality.

The revision class **Minor** means that the meaning of the technical content was clarified. Minor changes do not affect protocol interoperability or implementation. Examples of minor changes are updates to clarify ambiguity at the sentence, paragraph, or table level.

The revision class **None** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the relevant technical content is identical to the last released version.

The changes made to this document are listed in the following table. For more information, please contact [dochelp@microsoft.com](mailto:dochelp@microsoft.com).

| Section | Description | Revision class |
| --- | --- | --- |
| [1](#Section_4ea2d10cbe4146979669f5478af78a06) Introduction | Added a reference to [MS-ADTS] for the list of applicable products. | Minor |

# Index

A

[Active Directory Lightweight Directory Services attributes](#section_4f7e79ad460646429b5645061fab4e12) 15

[Active Directory Lightweight Directory Services classes](#section_5861c869e6b14b9ea87349f553408a3c) 144

[Attributes](#section_4f7e79ad460646429b5645061fab4e12) 15

C

[Change tracking](#section_b96a8643443e4b7a967e5ecfc65c3268) 169

[Classes](#section_5861c869e6b14b9ea87349f553408a3c) 144

I

[Introduction](#section_4ea2d10cbe4146979669f5478af78a06) 13

S

Schema - Active Directory Lightweight Directory Services

[attributes](#section_4f7e79ad460646429b5645061fab4e12) 15

[classes](#section_5861c869e6b14b9ea87349f553408a3c) 144

T

[Tracking changes](#section_b96a8643443e4b7a967e5ecfc65c3268) 169