**[MS-ADA1]:**

**Active Directory Schema Attributes A-L**

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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 | Changed language and formatting in the technical content. |
| 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 | 2.0 | Major | Updated and revised the technical content. |
| 1/25/2008 | 3.0 | Major | Updated and revised the technical content. |
| 3/14/2008 | 3.1 | Minor | Clarified status of several attributes. |
| 5/16/2008 | 3.1.1 | Editorial | Changed language and formatting in the technical content. |
| 6/20/2008 | 3.1.2 | Editorial | Changed language and formatting in the technical content. |
| 7/25/2008 | 4.0 | Major | Updated and revised the technical content. |
| 8/29/2008 | 5.0 | Major | Updated and revised the technical content. |
| 10/24/2008 | 6.0 | Major | Updated and revised the technical content. |
| 12/5/2008 | 7.0 | Major | Updated and revised the technical content. |
| 1/16/2009 | 7.0.1 | Editorial | Changed language and formatting in the technical content. |
| 2/27/2009 | 7.0.2 | Editorial | Changed language and formatting in the technical content. |
| 4/10/2009 | 8.0 | Major | Updated and revised the technical content. |
| 5/22/2009 | 8.1 | Minor | Clarified the meaning of the technical content. |
| 7/2/2009 | 8.2 | Minor | Clarified the meaning of the technical content. |
| 8/14/2009 | 8.2.1 | Editorial | Changed language and formatting in the technical content. |
| 9/25/2009 | 8.2.2 | Editorial | Changed language and formatting in the technical content. |
| 11/6/2009 | 8.3 | Minor | Clarified the meaning of the technical content. |
| 12/18/2009 | 9.0 | Major | Updated and revised the technical content. |
| 1/29/2010 | 10.0 | Major | Updated and revised the technical content. |
| 3/12/2010 | 11.0 | Major | Updated and revised the technical content. |
| 4/23/2010 | 12.0 | Major | Updated and revised the technical content. |
| 6/4/2010 | 13.0 | Major | Updated and revised the technical content. |
| 7/16/2010 | 13.1 | Minor | Clarified the meaning of the technical content. |
| 8/27/2010 | 14.0 | Major | Updated and revised the technical content. |
| 10/8/2010 | 15.0 | Major | Updated and revised the technical content. |
| 11/19/2010 | 16.0 | Major | Updated and revised the technical content. |
| 1/7/2011 | 17.0 | Major | Updated and revised the technical content. |
| 2/11/2011 | 18.0 | Major | Updated and revised the technical content. |
| 3/25/2011 | 18.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 5/6/2011 | 18.1 | Minor | Clarified the meaning of the technical content. |
| 6/17/2011 | 18.2 | Minor | Clarified the meaning of the technical content. |
| 9/23/2011 | 18.2 | None | No changes to the meaning, language, or formatting of the technical content. |
| 12/16/2011 | 19.0 | Major | Updated and revised the technical content. |
| 3/30/2012 | 19.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 7/12/2012 | 20.0 | Major | Updated and revised the technical content. |
| 10/25/2012 | 20.1 | Minor | Clarified the meaning of the technical content. |
| 1/31/2013 | 20.1 | None | No changes to the meaning, language, or formatting of the technical content. |
| 8/8/2013 | 20.2 | Minor | Clarified the meaning of the technical content. |
| 11/14/2013 | 20.2 | None | No changes to the meaning, language, or formatting of the technical content. |
| 2/13/2014 | 20.2 | None | No changes to the meaning, language, or formatting of the technical content. |
| 5/15/2014 | 20.2 | None | No changes to the meaning, language, or formatting of the technical content. |
| 6/30/2015 | 20.3 | Minor | Clarified the meaning of the technical content. |
| 10/16/2015 | 20.3 | None | No changes to the meaning, language, or formatting of the technical content. |
| 7/14/2016 | 20.3 | None | No changes to the meaning, language, or formatting of the technical content. |
| 6/1/2017 | 20.3 | None | No changes to the meaning, language, or formatting of the technical content. |

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# Introduction

Active Directory Schema Attributes A-L contains a partial list of the objects that exist in the Active Directory schema; it contains schema objects of type "attribute" whose names start with the letters A through L. Active Directory and all associated terms and concepts are described in the document titled "Active Directory Technical Specification", which has the following normative reference:

[MS-ADTS] Microsoft Corporation, "Active Directory Technical Specification".

**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, as specified in the normative reference shown above. For details about the Active Directory schema, see [[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) 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).

## References

[JFIF] Hamilton, E., "JPEG File Interchange Format, Version 1.02", September 1992, [http://www.w3.org/Graphics/JPEG/jfif.txt](https://go.microsoft.com/fwlink/?LinkId=89925)

[MS-ADA3] Microsoft Corporation, "[Active Directory Schema Attributes N-Z](%5bMS-ADA3%5d.pdf#Section_4517e8353ee644d4bb95a94b6966bfb0)".

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[MS-ADTS] Microsoft Corporation, "[Active Directory Technical Specification](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a)".

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[MS-SAMR] Microsoft Corporation, "[Security Account Manager (SAM) Remote Protocol (Client-to-Server)](%5bMS-SAMR%5d.pdf#Section_4df07fab1bbc452f8e927853a3c7e380)".

[MSDN-ACL] Microsoft Corporation, "ACL structure", [http://msdn.microsoft.com/en-us/library/aa374931.aspx](https://go.microsoft.com/fwlink/?LinkId=89950)

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[MSDN-ExtUserIntDirObj] Microsoft Corporation, "Extending the User Interface for Directory Objects", [http://msdn.microsoft.com/en-us/library/ms676902.aspx](https://go.microsoft.com/fwlink/?LinkId=107095)

[MSDN-GroupType] Microsoft Corporation, "Group-Type", [http://msdn.microsoft.com/en-us/library/ms675935.aspx](https://go.microsoft.com/fwlink/?LinkId=90016)

[MSFT-ADSCHEMA] Microsoft Corporation, "Combined Active Directory Schema Classes and Attributes for Windows Server", December 2013, [http://www.microsoft.com/downloads/en/details.aspx?displaylang=en&FamilyID=da2fc73a-3d35-484c-9bea-f023dcba7275](https://go.microsoft.com/fwlink/?LinkId=212555)

[RFC2251] Wahl, M., Howes, T., and Kille, S., "Lightweight Directory Access Protocol (v3)", RFC 2251, December 1997, [http://www.ietf.org/rfc/rfc2251.txt](https://go.microsoft.com/fwlink/?LinkId=90325)

[RFC2307] Howard, L., "An Approach for Using LDAP as a Network Information Service", RFC 2307, March 1998, [http://www.ietf.org/rfc/rfc2307.txt](https://go.microsoft.com/fwlink/?LinkId=90333)

[RFC2849] Good, G., "The LDAP Data Interchange Format (LDIF) - Technical Specification", RFC 2849, June 2000, [http://www.ietf.org/rfc/rfc2849.txt](https://go.microsoft.com/fwlink/?LinkId=90389)

[X500] ITU-T, "Information Technology - Open Systems Interconnection - The Directory: Overview of Concepts, Models and Services", Recommendation X.500, August 2005, [http://www.itu.int/rec/T-REC-X.500-200508-S/en](https://go.microsoft.com/fwlink/?LinkId=90589)

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

[X509] ITU-T, "Information Technology - Open Systems Interconnection - The Directory: Public-Key and Attribute Certificate Frameworks", Recommendation X.509, August 2005, [http://www.itu.int/rec/T-REC-X.509/en](https://go.microsoft.com/fwlink/?LinkId=90590)

# Attributes

The following sections specify attributes in the Active Directory schema whose names start with the letters A through L.

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 the 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
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server operating system, Windows Server 2003 operating system, Windows Server 2003 R2 operating system, Windows Server 2008 operating system, Windows Server 2008 R2 operating system, Windows Server 2012 operating system, Windows Server 2012 R2 operating system, and Windows Server 2016 operating system.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute accountNameHistory

This attribute specifies the length of time the account has been active.

1. cn: Account-Name-History
2. ldapDisplayName: accountNameHistory
3. attributeId: 1.2.840.113556.1.4.1307
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 031952ec-3b72-11d2-90cc-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSAggregateTokenRatePerUser

This attribute specifies the maximum quality of service token rate for any user for all flows.

1. cn: ACS-Aggregate-Token-Rate-Per-User
2. ldapDisplayName: aCSAggregateTokenRatePerUser
3. attributeId: 1.2.840.113556.1.4.760
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 7f56127d-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSAllocableRSVPBandwidth

This attribute specifies the maximum bandwidth that can be reserved.

1. cn: ACS-Allocable-RSVP-Bandwidth
2. ldapDisplayName: aCSAllocableRSVPBandwidth
3. attributeId: 1.2.840.113556.1.4.766
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 7f561283-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSCacheTimeout

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: ACS-Cache-Timeout
2. ldapDisplayName: aCSCacheTimeout
3. attributeId: 1.2.840.113556.1.4.779
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 1cb355a1-56d0-11d1-a9c6-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSDirection

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: ACS-Direction
2. ldapDisplayName: aCSDirection
3. attributeId: 1.2.840.113556.1.4.757
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 7f56127a-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSDSBMDeadTime

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: ACS-DSBM-DeadTime
2. ldapDisplayName: aCSDSBMDeadTime
3. attributeId: 1.2.840.113556.1.4.778
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 1cb355a0-56d0-11d1-a9c6-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSDSBMPriority

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: ACS-DSBM-Priority
2. ldapDisplayName: aCSDSBMPriority
3. attributeId: 1.2.840.113556.1.4.776
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 1cb3559e-56d0-11d1-a9c6-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSDSBMRefresh

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: ACS-DSBM-Refresh
2. ldapDisplayName: aCSDSBMRefresh
3. attributeId: 1.2.840.113556.1.4.777
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 1cb3559f-56d0-11d1-a9c6-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSEnableACSService

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: ACS-Enable-ACS-Service
2. ldapDisplayName: aCSEnableACSService
3. attributeId: 1.2.840.113556.1.4.770
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: 7f561287-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSEnableRSVPAccounting

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: ACS-Enable-RSVP-Accounting
2. ldapDisplayName: aCSEnableRSVPAccounting
3. attributeId: 1.2.840.113556.1.4.899
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: f072230e-aef5-11d1-bdcf-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSEnableRSVPMessageLogging

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: ACS-Enable-RSVP-Message-Logging
2. ldapDisplayName: aCSEnableRSVPMessageLogging
3. attributeId: 1.2.840.113556.1.4.768
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: 7f561285-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSEventLogLevel

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: ACS-Event-Log-Level
2. ldapDisplayName: aCSEventLogLevel
3. attributeId: 1.2.840.113556.1.4.769
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 7f561286-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSIdentityName

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: ACS-Identity-Name
2. ldapDisplayName: aCSIdentityName
3. attributeId: 1.2.840.113556.1.4.784
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: dab029b6-ddf7-11d1-90a5-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSMaxAggregatePeakRatePerUser

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: ACS-Max-Aggregate-Peak-Rate-Per-User
2. ldapDisplayName: aCSMaxAggregatePeakRatePerUser
3. attributeId: 1.2.840.113556.1.4.897
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: f072230c-aef5-11d1-bdcf-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSMaxDurationPerFlow

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: ACS-Max-Duration-Per-Flow
2. ldapDisplayName: aCSMaxDurationPerFlow
3. attributeId: 1.2.840.113556.1.4.761
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 7f56127e-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSMaximumSDUSize

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: ACS-Maximum-SDU-Size
2. ldapDisplayName: aCSMaximumSDUSize
3. attributeId: 1.2.840.113556.1.4.1314
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 87a2d8f9-3b90-11d2-90cc-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSMaxNoOfAccountFiles

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: ACS-Max-No-Of-Account-Files
2. ldapDisplayName: aCSMaxNoOfAccountFiles
3. attributeId: 1.2.840.113556.1.4.901
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: f0722310-aef5-11d1-bdcf-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSMaxNoOfLogFiles

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: ACS-Max-No-Of-Log-Files
2. ldapDisplayName: aCSMaxNoOfLogFiles
3. attributeId: 1.2.840.113556.1.4.774
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 1cb3559c-56d0-11d1-a9c6-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSMaxPeakBandwidth

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: ACS-Max-Peak-Bandwidth
2. ldapDisplayName: aCSMaxPeakBandwidth
3. attributeId: 1.2.840.113556.1.4.767
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 7f561284-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSMaxPeakBandwidthPerFlow

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: ACS-Max-Peak-Bandwidth-Per-Flow
2. ldapDisplayName: aCSMaxPeakBandwidthPerFlow
3. attributeId: 1.2.840.113556.1.4.759
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 7f56127c-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSMaxSizeOfRSVPAccountFile

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: ACS-Max-Size-Of-RSVP-Account-File
2. ldapDisplayName: aCSMaxSizeOfRSVPAccountFile
3. attributeId: 1.2.840.113556.1.4.902
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: f0722311-aef5-11d1-bdcf-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSMaxSizeOfRSVPLogFile

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: ACS-Max-Size-Of-RSVP-Log-File
2. ldapDisplayName: aCSMaxSizeOfRSVPLogFile
3. attributeId: 1.2.840.113556.1.4.775
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 1cb3559d-56d0-11d1-a9c6-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSMaxTokenBucketPerFlow

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: ACS-Max-Token-Bucket-Per-Flow
2. ldapDisplayName: aCSMaxTokenBucketPerFlow
3. attributeId: 1.2.840.113556.1.4.1313
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 81f6e0df-3b90-11d2-90cc-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSMaxTokenRatePerFlow

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: ACS-Max-Token-Rate-Per-Flow
2. ldapDisplayName: aCSMaxTokenRatePerFlow
3. attributeId: 1.2.840.113556.1.4.758
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 7f56127b-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSMinimumDelayVariation

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: ACS-Minimum-Delay-Variation
2. ldapDisplayName: aCSMinimumDelayVariation
3. attributeId: 1.2.840.113556.1.4.1317
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 9c65329b-3b90-11d2-90cc-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSMinimumLatency

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: ACS-Minimum-Latency
2. ldapDisplayName: aCSMinimumLatency
3. attributeId: 1.2.840.113556.1.4.1316
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 9517fefb-3b90-11d2-90cc-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSMinimumPolicedSize

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: ACS-Minimum-Policed-Size
2. ldapDisplayName: aCSMinimumPolicedSize
3. attributeId: 1.2.840.113556.1.4.1315
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 8d0e7195-3b90-11d2-90cc-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSNonReservedMaxSDUSize

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: ACS-Non-Reserved-Max-SDU-Size
2. ldapDisplayName: aCSNonReservedMaxSDUSize
3. attributeId: 1.2.840.113556.1.4.1320
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: aec2cfe3-3b90-11d2-90cc-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSNonReservedMinPolicedSize

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: ACS-Non-Reserved-Min-Policed-Size
2. ldapDisplayName: aCSNonReservedMinPolicedSize
3. attributeId: 1.2.840.113556.1.4.1321
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: b6873917-3b90-11d2-90cc-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSNonReservedPeakRate

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: ACS-Non-Reserved-Peak-Rate
2. ldapDisplayName: aCSNonReservedPeakRate
3. attributeId: 1.2.840.113556.1.4.1318
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: a331a73f-3b90-11d2-90cc-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSNonReservedTokenSize

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: ACS-Non-Reserved-Token-Size
2. ldapDisplayName: aCSNonReservedTokenSize
3. attributeId: 1.2.840.113556.1.4.1319
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: a916d7c9-3b90-11d2-90cc-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSNonReservedTxLimit

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: ACS-Non-Reserved-Tx-Limit
2. ldapDisplayName: aCSNonReservedTxLimit
3. attributeId: 1.2.840.113556.1.4.780
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 1cb355a2-56d0-11d1-a9c6-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSNonReservedTxSize

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: ACS-Non-Reserved-Tx-Size
2. ldapDisplayName: aCSNonReservedTxSize
3. attributeId: 1.2.840.113556.1.4.898
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: f072230d-aef5-11d1-bdcf-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSPermissionBits

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: ACS-Permission-Bits
2. ldapDisplayName: aCSPermissionBits
3. attributeId: 1.2.840.113556.1.4.765
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 7f561282-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSPolicyName

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: ACS-Policy-Name
2. ldapDisplayName: aCSPolicyName
3. attributeId: 1.2.840.113556.1.4.772
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 1cb3559a-56d0-11d1-a9c6-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSPriority

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: ACS-Priority
2. ldapDisplayName: aCSPriority
3. attributeId: 1.2.840.113556.1.4.764
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 7f561281-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSRSVPAccountFilesLocation

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: ACS-RSVP-Account-Files-Location
2. ldapDisplayName: aCSRSVPAccountFilesLocation
3. attributeId: 1.2.840.113556.1.4.900
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: f072230f-aef5-11d1-bdcf-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSRSVPLogFilesLocation

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: ACS-RSVP-Log-Files-Location
2. ldapDisplayName: aCSRSVPLogFilesLocation
3. attributeId: 1.2.840.113556.1.4.773
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 1cb3559b-56d0-11d1-a9c6-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSServerList

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: ACS-Server-List
2. ldapDisplayName: aCSServerList
3. attributeId: 1.2.840.113556.1.4.1312
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 7cbd59a5-3b90-11d2-90cc-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSServiceType

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: ACS-Service-Type
2. ldapDisplayName: aCSServiceType
3. attributeId: 1.2.840.113556.1.4.762
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 7f56127f-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSTimeOfDay

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: ACS-Time-Of-Day
2. ldapDisplayName: aCSTimeOfDay
3. attributeId: 1.2.840.113556.1.4.756
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 7f561279-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute aCSTotalNoOfFlows

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: ACS-Total-No-Of-Flows
2. ldapDisplayName: aCSTotalNoOfFlows
3. attributeId: 1.2.840.113556.1.4.763
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 7f561280-5301-11d1-a9c5-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute additionalTrustedServiceNames

This attribute specifies a list of services in the domain that can be trusted. 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: Additional-Trusted-Service-Names
2. ldapDisplayName: additionalTrustedServiceNames
3. attributeId: 1.2.840.113556.1.4.889
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 032160be-9824-11d1-aec0-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute addressBookRoots

This attribute is used by Microsoft Exchange Server and is not necessary for Active Directory functioning. It specifies the trees of address book containers to appear in the Messaging Application Programming Interface (MAPI) address book.

1. cn: Address-Book-Roots
2. ldapDisplayName: addressBookRoots
3. attributeId: 1.2.840.113556.1.4.1244
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: f70b6e48-06f4-11d2-aa53-00c04fd7d83a
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute addressBookRoots2

This attribute is used by Exchange Server and is not necessary for Active Directory functioning. It specifies the trees of address book containers to appear in the MAPI address book. Similar to [addressBookRoots](#Section_08c233c3e9f64e6fa3e90da5683e3975), it differs by being a linked attribute.

1. cn: Address-Book-Roots2
2. ldapDisplayName: addressBookRoots2
3. attributeId: 1.2.840.113556.1.4.2046
4. attributeSyntax: 2.5.5.1
5. linkID: 2122
6. omSyntax: 127
7. omObjectClass: 1.3.12.2.1011.28.0.714
8. isSingleValued: FALSE
9. schemaIdGuid: 508ca374-a511-4e4e-9f4f-856f61a6b7e4
10. systemOnly: FALSE
11. searchFlags: 0
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute addressEntryDisplayTable

This attribute is used by Exchange Server and is not necessary for Active Directory functioning. It specifies the display table for an address entry.

1. cn: Address-Entry-Display-Table
2. ldapDisplayName: addressEntryDisplayTable
3. attributeId: 1.2.840.113556.1.2.324
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 5fd42461-1262-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 32768
12. mapiID: 32791
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute addressEntryDisplayTableMSDOS

This attribute is used by Exchange Server and is not necessary for Active Directory functioning. It specifies the MAPI display table for an address entry for an MS-DOS client.

1. cn: Address-Entry-Display-Table-MSDOS
2. ldapDisplayName: addressEntryDisplayTableMSDOS
3. attributeId: 1.2.840.113556.1.2.400
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 5fd42462-1262-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 32768
12. mapiID: 32839
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute addressSyntax

This attribute is used by Exchange Server and is not necessary for Active Directory functioning. It specifies a grammar for encoding the display table properties as a string.

1. cn: Address-Syntax
2. ldapDisplayName: addressSyntax
3. attributeId: 1.2.840.113556.1.2.255
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 5fd42463-1262-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 4096
12. mapiID: 32792
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute addressType

This attribute is used by Exchange Server and is not necessary for Active Directory functioning. It specifies a character string describing the format of the user's address. Address types map to address formats. That is, by looking at a recipient's address type, client applications can determine how to format an address appropriate for the recipient.

1. cn: Address-Type
2. ldapDisplayName: addressType
3. attributeId: 1.2.840.113556.1.2.350
4. attributeSyntax: 2.5.5.4
5. omSyntax: 20
6. isSingleValued: TRUE
7. schemaIdGuid: 5fd42464-1262-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 32
12. mapiID: 32840
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute adminContextMenu

This attribute specifies the order number and 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
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute adminCount

This attribute specifies that a given object has had its access control lists (ACLs) changed to a more secure value by the Active Directory system [[MS-ADOD]](%5bMS-ADOD%5d.pdf#Section_5ff67bf4c14548cb89cd4f5482d94664) because it is a member of one of the administrative groups, either directly or transitively. For more information on the ACL structure, see [[MSDN-ACL]](https://go.microsoft.com/fwlink/?LinkId=89950).

1. cn: Admin-Count
2. ldapDisplayName: adminCount
3. attributeId: 1.2.840.113556.1.4.150
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf967918-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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. mapiID: 32842
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute adminDisplayName

This attribute specifies the name to be 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. mapiID: 32843
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute adminMultiselectPropertyPages

This attribute specifies the 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
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute adminPropertyPages

This attribute specifies the 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
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute allowedAttributes

This attribute specifies attributes that will be 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
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute altSecurityIdentities

This attribute specifies a given user mapping for [[X509]](https://go.microsoft.com/fwlink/?LinkId=90590) certificates or external Kerberos user accounts for the purpose of authentication.

1. cn: Alt-Security-Identities
2. ldapDisplayName: altSecurityIdentities
3. attributeId: 1.2.840.113556.1.4.867
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 00fbf30c-91fe-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
11. isMemberOfPartialAttributeSet: TRUE
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
13. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute applicationName

This attribute is used to store the name of the application.

1. cn: Application-Name
2. ldapDisplayName: applicationName
3. attributeId: 1.2.840.113556.1.4.218
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: dd712226-10e4-11d0-a05f-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 64
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute appliesTo

This attribute specifies the list of object classes that an extended right applies to. For more information on Active Directory object classes, see [[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a).

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: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute appSchemaVersion

This attribute specifies the schema version of the directory. It is used to provide correct behavior across schema changes. For more information on the schema, see [[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) section 3.1.1.2.

1. cn: App-Schema-Version
2. ldapDisplayName: appSchemaVersion
3. attributeId: 1.2.840.113556.1.4.848
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 96a7dd65-9118-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute assetNumber

This attribute is used to store the tracking number of the object.

1. cn: Asset-Number
2. ldapDisplayName: assetNumber
3. attributeId: 1.2.840.113556.1.4.283
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: ba305f75-47e3-11d0-a1a6-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute assistant

This attribute can be used to store the distinguished name of an administrative assistant for a user.

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
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute associatedDomain

The associatedDomain attribute type specifies a fully qualified domain name (FQDN) (2) ([[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) section 1.1) associated with an object.

1. cn: associatedDomain
2. ldapDisplayName: associatedDomain
3. attributeId: 0.9.2342.19200300.100.1.37
4. attributeSyntax: 2.5.5.5
5. omSyntax: 22
6. isSingleValued: FALSE
7. schemaIdGuid: 3320fc38-c379-4c17-a510-1bdf6133c5da
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 256

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute associatedName

The associatedName attribute type specifies an entry in the directory associated with a DNS domain.

1. cn: associatedName
2. ldapDisplayName: associatedName
3. attributeId: 0.9.2342.19200300.100.1.38
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: f7fbfc45-85ab-42a4-a435-780e62f7858b
9. systemOnly: FALSE
10. searchFlags: 0

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute assocNTAccount

The Windows NT operating system account that applies to this object.

1. cn: Assoc-NT-Account
2. ldapDisplayName: assocNTAccount
3. attributeId: 1.2.840.113556.1.4.1213
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 398f63c0-ca60-11d1-bbd1-0000f81f10c0
8. systemOnly: FALSE
9. searchFlags: 0

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute attributeCertificateAttribute

A digitally signed or certified identity and set of attributes. 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: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute attributeDisplayNames

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
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute attributeID

This attribute specifies the unique X.500 object identifier (OID) for identifying 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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute attributeSecurityGUID

This attribute specifies the GUID 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
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute attributeTypes

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
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute audio

This attribute can be used to store audio.

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: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute auditingPolicy

This attribute specifies the auditing policy for the local policy.

1. cn: Auditing-Policy
2. ldapDisplayName: auditingPolicy
3. attributeId: 1.2.840.113556.1.4.202
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 6da8a4fe-0e52-11d0-a286-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute authenticationOptions

This attribute specifies the authentication options used in the Active Directory Service Interface (ADSI) to bind to directory services objects.

1. cn: Authentication-Options
2. ldapDisplayName: authenticationOptions
3. attributeId: 1.2.840.113556.1.4.11
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf967928-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute authorityRevocationList

Cross-certificate, certificate revocation list.

1. cn: Authority-Revocation-List
2. ldapDisplayName: authorityRevocationList
3. attributeId: 2.5.4.38
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 1677578d-47f3-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 10485760
11. mapiID: 32806
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, rangeUpper is not defined.

## 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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute badPasswordTime

This attribute specifies the last time and date that an attempt to log on to this account was made with 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 invalid 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: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: 5f202010-79a5-11d0-9020-00c04fc2d4cf
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute birthLocation

This attribute specifies the location of a system object, such as a file, at the time that it was originally created.

1. cn: Birth-Location
2. ldapDisplayName: birthLocation
3. attributeId: 1.2.840.113556.1.4.332
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 1f0075f9-7e40-11d0-afd6-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. rangeLower: 32
11. rangeUpper: 32
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute bootFile

This attribute specifies the boot image name.

1. cn: BootFile
2. ldapDisplayName: bootFile
3. attributeId: 1.3.6.1.1.1.1.24
4. attributeSyntax: 2.5.5.5
5. omSyntax: 22
6. isSingleValued: FALSE
7. schemaIdGuid: e3f3cb4e-0f20-42eb-9703-d2ff26e52667
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 10240

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute bootParameter

This attribute specifies the rpc.bootparameter.

1. cn: BootParameter
2. ldapDisplayName: bootParameter
3. attributeId: 1.3.6.1.1.1.1.23
4. attributeSyntax: 2.5.5.5
5. omSyntax: 22
6. isSingleValued: FALSE
7. schemaIdGuid: d72a0750-8c7c-416e-8714-e65f11e908be
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 10240

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute bridgeheadServerListBL

This attribute is the back link attribute of bridgeheadServerList and contains the list of servers that are bridgeheads for Active Directory 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
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute bridgeheadTransportList

This attribute specifies the replication transports for which this server is an Active Directory bridgehead DC.

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: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute buildingName

This attribute specifies the name of the building where an organization or organizational unit is based.

1. cn: buildingName
2. ldapDisplayName: buildingName
3. attributeId: 0.9.2342.19200300.100.1.48
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: f87fa54b-b2c5-4fd7-88c0-daccb21d93c5
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 256

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute builtinCreationTime

This attribute is used to support replication to Windows NT 4.0 operating system domains.

1. cn: Builtin-Creation-Time
2. ldapDisplayName: builtinCreationTime
3. attributeId: 1.2.840.113556.1.4.13
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf96792f-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute builtinModifiedCount

This attribute is used to support replication to Windows NT 4.0 domains.

1. cn: Builtin-Modified-Count
2. ldapDisplayName: builtinModifiedCount
3. attributeId: 1.2.840.113556.1.4.14
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf967930-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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. mapiID: 32855
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute bytesPerMinute

This attribute specifies the printer data transfer rate.

1. cn: Bytes-Per-Minute
2. ldapDisplayName: bytesPerMinute
3. attributeId: 1.2.840.113556.1.4.284
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: ba305f76-47e3-11d0-a1a6-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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. mapiID: 32873
14. isMemberOfPartialAttributeSet: TRUE
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
16. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER
17. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute cACertificate

This attribute specifies certificates of trusted certificate authorities (CAs).

1. cn: CA-Certificate
2. ldapDisplayName: cACertificate
3. attributeId: 2.5.4.37
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: bf967932-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 32768
12. mapiID: 32771
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute cACertificateDN

This attribute specifies the full distinguished name from the certificate authority (CA) certificate.

1. cn: CA-Certificate-DN
2. ldapDisplayName: cACertificateDN
3. attributeId: 1.2.840.113556.1.4.697
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 963d2740-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute cAConnect

This attribute specifies the connection string for binding to a CA.

1. cn: CA-Connect
2. ldapDisplayName: cAConnect
3. attributeId: 1.2.840.113556.1.4.687
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 963d2735-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute canonicalName

This attribute specifies the name of the object in canonical format; myserver2.fabrikam.com/users/jeffsmith is an example of a distinguished name 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
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute canUpgradeScript

This attribute specifies the list of application packages that can be upgraded by this application package or that can upgrade this application package.

1. cn: Can-Upgrade-Script
2. ldapDisplayName: canUpgradeScript
3. attributeId: 1.2.840.113556.1.4.815
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: d9e18314-8939-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute carLicense

This attribute can be used to store a 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: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute catalogs

This attribute specifies the list of catalogs indexing storage on a given computer.

1. cn: Catalogs
2. ldapDisplayName: catalogs
3. attributeId: 1.2.840.113556.1.4.675
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 7bfdcb81-4807-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute categories

This attribute specifies a list of category IDs (GUIDs) for categories that apply to this application.

1. cn: Categories
2. ldapDisplayName: categories
3. attributeId: 1.2.840.113556.1.4.672
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 7bfdcb7e-4807-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 36
11. rangeUpper: 36
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute categoryId

This attribute specifies the ID for a component category.

1. cn: Category-Id
2. ldapDisplayName: categoryId
3. attributeId: 1.2.840.113556.1.4.322
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 7d6c0e94-7e20-11d0-afd6-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 16
11. rangeUpper: 16
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute cAUsages

This attribute specifies the list of OID/cryptographic service provider (CSP) name concatenations.

1. cn: CA-Usages
2. ldapDisplayName: cAUsages
3. attributeId: 1.2.840.113556.1.4.690
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 963d2738-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute cAWEBURL

This attribute specifies the URL for an HTTP connection to a CA.

1. cn: CA-WEB-URL
2. ldapDisplayName: cAWEBURL
3. attributeId: 1.2.840.113556.1.4.688
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 963d2736-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute certificateAuthorityObject

This attribute specifies a reference to the CA associated with a certificate revocation list (CRL) distribution point.

1. cn: Certificate-Authority-Object
2. ldapDisplayName: certificateAuthorityObject
3. attributeId: 1.2.840.113556.1.4.684
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 963d2732-48be-11d1-a9c3-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

On Windows 2000 Server, rangeUpper is not defined.

## Attribute certificateRevocationList

This attribute represents a list of certificates that have been revoked.

1. cn: Certificate-Revocation-List
2. ldapDisplayName: certificateRevocationList
3. attributeId: 2.5.4.39
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 1677579f-47f3-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 10485760
11. mapiID: 32790
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, rangeUpper is not defined.

## Attribute certificateTemplates

This attribute contains information for a certificate issued by a certificate server.

1. cn: Certificate-Templates
2. ldapDisplayName: certificateTemplates
3. attributeId: 1.2.840.113556.1.4.823
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 2a39c5b1-8960-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute cn

This attribute specifies the name that represents an object. It 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. mapiID: 14863
14. isMemberOfPartialAttributeSet: TRUE
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
16. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER
17. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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. mapiID: 14886
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute codePage

This attribute specifies the code page for the user's language of choice. The space of values is the Microsoft code page designation. For more information, see [[MSDN-CP]](https://go.microsoft.com/fwlink/?LinkId=89981).

1. cn: Code-Page
2. ldapDisplayName: codePage
3. attributeId: 1.2.840.113556.1.4.16
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf967938-0de6-11d0-a285-00aa003049e2
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
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, rangeLower and rangeUpper are not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute cOMClassID

This attribute specifies the list of ClassIDs implemented in this application package.

1. cn: COM-ClassID
2. ldapDisplayName: cOMClassID
3. attributeId: 1.2.840.113556.1.4.19
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: bf96793b-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute cOMCLSID

This attribute specifies the GUID associated with this object class.

1. cn: COM-CLSID
2. ldapDisplayName: cOMCLSID
3. attributeId: 1.2.840.113556.1.4.249
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 281416d9-1968-11d0-a28f-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 36
11. rangeUpper: 36
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute cOMInterfaceID

This attribute specifies the list of interfaces implemented in this application package.

1. cn: COM-InterfaceID
2. ldapDisplayName: cOMInterfaceID
3. attributeId: 1.2.840.113556.1.4.20
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: bf96793c-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 36
11. rangeUpper: 36
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute comment

This attribute can be used to store a comment for a user.

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
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute cOMOtherProgId

This attribute specifies the list of other program ID strings for the host class.

1. cn: COM-Other-Prog-Id
2. ldapDisplayName: cOMOtherProgId
3. attributeId: 1.2.840.113556.1.4.253
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 281416dd-1968-11d0-a28f-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute company

This attribute can be used to store a company name for a user.

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
13. mapiID: 14870
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute cOMProgID

This attribute specifies the list of COM object program IDs implemented in this application package.

1. cn: COM-ProgID
2. ldapDisplayName: cOMProgID
3. attributeId: 1.2.840.113556.1.4.21
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: bf96793d-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute cOMTreatAsClassId

This attribute specifies the Treat-As string GUID class identifier (CLSID) for the host class.

1. cn: COM-Treat-As-Class-Id
2. ldapDisplayName: cOMTreatAsClassId
3. attributeId: 1.2.840.113556.1.4.251
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 281416db-1968-11d0-a28f-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 36
11. rangeUpper: 36
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute cOMTypelibId

This attribute specifies the list of type library IDs contained in this application package.

1. cn: COM-Typelib-Id
2. ldapDisplayName: cOMTypelibId
3. attributeId: 1.2.840.113556.1.4.254
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 281416de-1968-11d0-a28f-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 36
11. rangeUpper: 36
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute cOMUniqueLIBID

This attribute specifies a single-valued string GUID LIBID for a type library.

1. cn: COM-Unique-LIBID
2. ldapDisplayName: cOMUniqueLIBID
3. attributeId: 1.2.840.113556.1.4.250
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 281416da-1968-11d0-a28f-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 36
11. rangeUpper: 36
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute contentIndexingAllowed

Indicates whether the volume object can be content indexed.

1. cn: Content-Indexing-Allowed
2. ldapDisplayName: contentIndexingAllowed
3. attributeId: 1.2.840.113556.1.4.24
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: bf967943-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute controlAccessRights

This attribute is used by DS Security to determine which users can perform specific operations on the host object.

1. cn: Control-Access-Rights
2. ldapDisplayName: controlAccessRights
3. attributeId: 1.2.840.113556.1.4.200
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 6da8a4fc-0e52-11d0-a286-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 16
11. rangeUpper: 16
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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
10. mapiID: 32872
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, rangeLower and rangeUpper are not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute createDialog

This attribute specifies the GUID of the dialog 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
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute createTimeStamp

This attribute specifies the date 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
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute createWizardExt

The GUID of 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
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute creationTime

This attribute specifies the date and time that the object was created.

1. cn: Creation-Time
2. ldapDisplayName: creationTime
3. attributeId: 1.2.840.113556.1.4.26
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf967946-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute creator

This attribute specifies the person who created the object.

1. cn: Creator
2. ldapDisplayName: creator
3. attributeId: 1.2.840.113556.1.4.679
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 7bfdcb85-4807-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute cRLObject

This attribute specifies the reference to the CRL object associated with a CA.

1. cn: CRL-Object
2. ldapDisplayName: cRLObject
3. attributeId: 1.2.840.113556.1.4.689
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 963d2737-48be-11d1-a9c3-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute cRLPartitionedRevocationList

This attribute specifies the public key infrastructure–revocation lists.

1. cn: CRL-Partitioned-Revocation-List
2. ldapDisplayName: cRLPartitionedRevocationList
3. attributeId: 1.2.840.113556.1.4.683
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 963d2731-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 10485760
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, rangeUpper is not defined.

## Attribute crossCertificatePair

This attribute specifies the version 3 (v3) cross-certificate.

1. cn: Cross-Certificate-Pair
2. ldapDisplayName: crossCertificatePair
3. attributeId: 2.5.4.40
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 167757b2-47f3-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 32768
11. mapiID: 32805
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, rangeUpper is not defined.

## Attribute currentLocation

This attribute specifies the computer location for an object that has moved.

1. cn: Current-Location
2. ldapDisplayName: currentLocation
3. attributeId: 1.2.840.113556.1.4.335
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 1f0075fc-7e40-11d0-afd6-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 32
11. rangeUpper: 32
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute currentParentCA

This attribute specifies a reference to the CAs that issued the current certificates for a CA.

1. cn: Current-Parent-CA
2. ldapDisplayName: currentParentCA
3. attributeId: 1.2.840.113556.1.4.696
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 963d273f-48be-11d1-a9c3-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute currentValue

This attribute is used to store the new value of a secret object. Secret objects are specified in [[MS-LSAD]](%5bMS-LSAD%5d.pdf#Section_1b5471ef4c334a91b079dfcbb82f05cc) section 3.1.1.4. The format of the value of this attribute is outside the scope of the state model, and values stored in this attribute cannot be retrieved via the Lightweight Directory Access Protocol (LDAP). Instead, secret objects are retrieved and written as specified in [MS-LSAD] section 3.1.1.4.

1. cn: Current-Value
2. ldapDisplayName: currentValue
3. attributeId: 1.2.840.113556.1.4.27
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: bf967947-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute currMachineId

This attribute specifies the ID of the machine where a Link-Track-Vol-Entry object is located.

1. cn: Curr-Machine-Id
2. ldapDisplayName: currMachineId
3. attributeId: 1.2.840.113556.1.4.337
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 1f0075fe-7e40-11d0-afd6-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 16
11. rangeUpper: 16
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dBCSPwd

This attribute specifies the account's LAN Manager password.

For more information, see [[MS-SAMR]](%5bMS-SAMR%5d.pdf#Section_4df07fab1bbc452f8e927853a3c7e380) section 3.1.1.8.6.

1. cn: DBCS-Pwd
2. ldapDisplayName: dBCSPwd
3. attributeId: 1.2.840.113556.1.4.55
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: bf96799c-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute dc

This attribute specifies the naming attribute for domain and DNS objects. 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
15. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute defaultLocalPolicyObject

This attribute specifies a reference to a policy object that defines the local policy for the host object.

1. cn: Default-Local-Policy-Object
2. ldapDisplayName: defaultLocalPolicyObject
3. attributeId: 1.2.840.113556.1.4.57
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: bf96799f-0de6-11d0-a285-00aa003049e2
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute defaultObjectCategory

This attribute specifies the value to use for the objectCategory attribute (see [[MS-ADA3]](%5bMS-ADA3%5d.pdf#Section_4517e8353ee644d4bb95a94b6966bfb0) section 2.39) if one is not specified on object instantiation. For more information on the defaultObjectCategory attribute, see [[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) section 3.1.1.2.4.8.

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
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute defaultPriority

The default priority (for example, of a process or a print job).

1. cn: Default-Priority
2. ldapDisplayName: defaultPriority
3. attributeId: 1.2.840.113556.1.4.232
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 281416c8-1968-11d0-a28f-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute defaultSecurityDescriptor

This attribute specifies the security descriptor to be assigned to the object when it is 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
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute deltaRevocationList

This list contains certificates revoked since the last delta update.

1. cn: Delta-Revocation-List
2. ldapDisplayName: deltaRevocationList
3. attributeId: 2.5.4.53
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 167757b5-47f3-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 10485760
11. mapiID: 35910

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, rangeUpper is not defined.

## Attribute department

This attribute contains the name of the user's department.

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
13. mapiID: 14872
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute departmentNumber

This attribute can be used to store a department number 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: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute description

This attribute specifies the description to display for an object.

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. mapiID: 32879
14. isMemberOfPartialAttributeSet: TRUE
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
16. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute destinationIndicator

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

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. mapiID: 32880
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpClasses

1. cn: dhcp-Classes
2. ldapDisplayName: dhcpClasses
3. attributeId: 1.2.840.113556.1.4.715
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 963d2750-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpFlags

1. cn: dhcp-Flags
2. ldapDisplayName: dhcpFlags
3. attributeId: 1.2.840.113556.1.4.700
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 963d2741-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpIdentification

1. cn: dhcp-Identification
2. ldapDisplayName: dhcpIdentification
3. attributeId: 1.2.840.113556.1.4.701
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 963d2742-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpMask

1. cn: dhcp-Mask
2. ldapDisplayName: dhcpMask
3. attributeId: 1.2.840.113556.1.4.706
4. attributeSyntax: 2.5.5.5
5. omSyntax: 19
6. isSingleValued: FALSE
7. schemaIdGuid: 963d2747-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpMaxKey

1. cn: dhcp-MaxKey
2. ldapDisplayName: dhcpMaxKey
3. attributeId: 1.2.840.113556.1.4.719
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 963d2754-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpObjDescription

1. cn: dhcp-Obj-Description
2. ldapDisplayName: dhcpObjDescription
3. attributeId: 1.2.840.113556.1.4.703
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 963d2744-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpObjName

1. cn: dhcp-Obj-Name
2. ldapDisplayName: dhcpObjName
3. attributeId: 1.2.840.113556.1.4.702
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 963d2743-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpOptions

1. cn: dhcp-Options
2. ldapDisplayName: dhcpOptions
3. attributeId: 1.2.840.113556.1.4.714
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 963d274f-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpProperties

1. cn: dhcp-Properties
2. ldapDisplayName: dhcpProperties
3. attributeId: 1.2.840.113556.1.4.718
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 963d2753-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpRanges

1. cn: dhcp-Ranges
2. ldapDisplayName: dhcpRanges
3. attributeId: 1.2.840.113556.1.4.707
4. attributeSyntax: 2.5.5.5
5. omSyntax: 19
6. isSingleValued: FALSE
7. schemaIdGuid: 963d2748-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpReservations

1. cn: dhcp-Reservations
2. ldapDisplayName: dhcpReservations
3. attributeId: 1.2.840.113556.1.4.709
4. attributeSyntax: 2.5.5.5
5. omSyntax: 19
6. isSingleValued: FALSE
7. schemaIdGuid: 963d274a-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpServers

This attribute contains a list of servers authorized in the enterprise. This attribute is sent by the Dynamic Host Configuration Protocol (DHCP) server and can contain either the name of the server or its IP address.

1. cn: dhcp-Servers
2. ldapDisplayName: dhcpServers
3. attributeId: 1.2.840.113556.1.4.704
4. attributeSyntax: 2.5.5.5
5. omSyntax: 19
6. isSingleValued: FALSE
7. schemaIdGuid: 963d2745-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. extendedCharsAllowed: TRUE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, extendedCharsAllowed is not defined.

## Attribute dhcpSites

1. cn: dhcp-Sites
2. ldapDisplayName: dhcpSites
3. attributeId: 1.2.840.113556.1.4.708
4. attributeSyntax: 2.5.5.5
5. omSyntax: 19
6. isSingleValued: FALSE
7. schemaIdGuid: 963d2749-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpState

1. cn: dhcp-State
2. ldapDisplayName: dhcpState
3. attributeId: 1.2.840.113556.1.4.717
4. attributeSyntax: 2.5.5.5
5. omSyntax: 19
6. isSingleValued: FALSE
7. schemaIdGuid: 963d2752-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpSubnets

1. cn: dhcp-Subnets
2. ldapDisplayName: dhcpSubnets
3. attributeId: 1.2.840.113556.1.4.705
4. attributeSyntax: 2.5.5.5
5. omSyntax: 19
6. isSingleValued: FALSE
7. schemaIdGuid: 963d2746-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpType

The type of DHCP server. This attribute is sent by the DHCP server during authorization and is currently being set to 0.

1. cn: dhcp-Type
2. ldapDisplayName: dhcpType
3. attributeId: 1.2.840.113556.1.4.699
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 963d273b-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpUniqueKey

1. cn: dhcp-Unique-Key
2. ldapDisplayName: dhcpUniqueKey
3. attributeId: 1.2.840.113556.1.4.698
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 963d273a-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dhcpUpdateTime

1. cn: dhcp-Update-Time
2. ldapDisplayName: dhcpUpdateTime
3. attributeId: 1.2.840.113556.1.4.720
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: 963d2755-48be-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute directReports

This attribute contains the list of users who directly report to a user. The users listed as reports are those who have their property-manager property set to this user. Each item in the list is a linked reference to the object that represents the corresponding 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. mapiID: 32782
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute displayName

This attribute specifies the display name for an object, 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
15. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute displayNamePrintable

This attribute specifies the printable display name for an object, 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. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 256
12. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
13. mapiID: 14847
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
15. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute distinguishedName

This attribute is the same as the distinguished name for an object and is included on all objects in Active Directory. It is also used by Exchange Server. See [[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) section 3.1.1.1.4 for more information.

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. mapiID: 32828
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
15. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER | FLAG\_ATTR\_NOT\_REPLICATED
16. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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, as well as mandatory, optional, and precluded attributes. Collective attributes shall be 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
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute division

This attribute can be used to store the name of a division for a user.

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
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dMDLocation

This attribute specifies the distinguished name to 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
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute dmdName

This attribute specifies a name 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. mapiID: 35926
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dNReferenceUpdate

If an object is renamed, this attribute is used to track all the previous and current names assigned to the object so that linked objects can still find it.

1. cn: DN-Reference-Update
2. ldapDisplayName: dNReferenceUpdate
3. attributeId: 1.2.840.113556.1.4.1242
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 2df90d86-009f-11d2-aa4c-00c04fd7d83a
9. systemOnly: TRUE
10. searchFlags: fPRESERVEONDELETE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute dnsAllowDynamic

1. cn: Dns-Allow-Dynamic
2. ldapDisplayName: dnsAllowDynamic
3. attributeId: 1.2.840.113556.1.4.378
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: e0fa1e65-9b45-11d0-afdd-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dnsAllowXFR

1. cn: Dns-Allow-XFR
2. ldapDisplayName: dnsAllowXFR
3. attributeId: 1.2.840.113556.1.4.379
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: e0fa1e66-9b45-11d0-afdd-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dNSHostName

This attribute specifies the name of a computer as 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
15. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attributeSecurityGuid is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute dnsNotifySecondaries

1. cn: Dns-Notify-Secondaries
2. ldapDisplayName: dnsNotifySecondaries
3. attributeId: 1.2.840.113556.1.4.381
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: FALSE
7. schemaIdGuid: e0fa1e68-9b45-11d0-afdd-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dNSProperty

Written onto dnsZone objects. This attribute is used to store zone properties in BLOB format.

1. cn: DNS-Property
2. ldapDisplayName: dNSProperty
3. attributeId: 1.2.840.113556.1.4.1306
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 675a15fe-3b70-11d2-90cc-00c04fd91ab1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dnsRecord

This attribute is written onto dnsNode objects. Used to store DNS resource record definitions in BLOB format.

1. cn: Dns-Record
2. ldapDisplayName: dnsRecord
3. attributeId: 1.2.840.113556.1.4.382
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: e0fa1e69-9b45-11d0-afdd-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dnsRoot

The uppermost fully qualified domain name (FQDN) (1) ([[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a) section 1.1) assigned to a domain naming context. This is set on a crossRef object and is used, among other things, for referral generation. A search through an entire domain tree is 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
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute dnsSecureSecondaries

1. cn: Dns-Secure-Secondaries
2. ldapDisplayName: dnsSecureSecondaries
3. attributeId: 1.2.840.113556.1.4.380
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: FALSE
7. schemaIdGuid: e0fa1e67-9b45-11d0-afdd-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dNSTombstoned

Set to TRUE if this object has been tombstoned. This attribute exists to make searching for tombstoned records easier and faster.

Tombstoned objects are objects that have been deleted but not yet removed from the directory. When the value is missing or FALSE, the DNS node is active. When the value is TRUE, the DNS node has been logically deleted, but the dnsNode object is kept alive to avoid excess replication traffic and to replicate node deletions between DNS servers.

1. cn: DNS-Tombstoned
2. ldapDisplayName: dNSTombstoned
3. attributeId: 1.2.840.113556.1.4.1414
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: d5eb2eb7-be4e-463b-a214-634a44d7392e
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute documentAuthor

1. cn: documentAuthor
2. ldapDisplayName: documentAuthor
3. attributeId: 0.9.2342.19200300.100.1.14
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: f18a8e19-af5f-4478-b096-6f35c27eb83f
9. systemOnly: FALSE
10. searchFlags: 0

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute documentIdentifier

1. cn: documentIdentifier
2. ldapDisplayName: documentIdentifier
3. attributeId: 0.9.2342.19200300.100.1.11
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 0b21ce82-ff63-46d9-90fb-c8b9f24e97b9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 256

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute documentLocation

1. cn: documentLocation
2. ldapDisplayName: documentLocation
3. attributeId: 0.9.2342.19200300.100.1.15
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: b958b14e-ac6d-4ec4-8892-be70b69f7281
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 256

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute documentPublisher

This attribute specifies the person and/or organization that published a document.

1. cn: documentPublisher
2. ldapDisplayName: documentPublisher
3. attributeId: 0.9.2342.19200300.100.1.56
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 170f09d7-eb69-448a-9a30-f1afecfd32d7
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 256

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute documentTitle

1. cn: documentTitle
2. ldapDisplayName: documentTitle
3. attributeId: 0.9.2342.19200300.100.1.12
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: de265a9c-ff2c-47b9-91dc-6e6fe2c43062
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 256

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute documentVersion

1. cn: documentVersion
2. ldapDisplayName: documentVersion
3. attributeId: 0.9.2342.19200300.100.1.13
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 94b3a8a9-d613-4cec-9aad-5fbcc1046b43
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 256

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute domainCAs

The Domain-Certificate-Authorities attribute contains a list of certificate authorities for a given domain.

1. cn: Domain-Certificate-Authorities
2. ldapDisplayName: domainCAs
3. attributeId: 1.2.840.113556.1.4.668
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 7bfdcb7a-4807-11d1-a9c3-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute domainCrossRef

This is a reference from a trusted domain object to the cross-reference object of the trusted domain.

1. cn: Domain-Cross-Ref
2. ldapDisplayName: domainCrossRef
3. attributeId: 1.2.840.113556.1.4.472
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: b000ea7b-a086-11d0-afdd-00c04fd930c9
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute domainID

Reference to a domain associated with a CA.

1. cn: Domain-ID
2. ldapDisplayName: domainID
3. attributeId: 1.2.840.113556.1.4.686
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 963d2734-48be-11d1-a9c3-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute domainIdentifier

The domain security identifier (SID), as defined in [[MS-DTYP]](%5bMS-DTYP%5d.pdf#Section_cca2742956894a16b2b49325d93e4ba2) section 2.4.2, identifying the domain. The SID can be represented in any of the three formats described in that section, depending on the type of protocol being used to carry the information.

1. cn: Domain-Identifier
2. ldapDisplayName: domainIdentifier
3. attributeId: 1.2.840.113556.1.4.755
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 7f561278-5301-11d1-a9c5-0000f80367c1
8. systemOnly: TRUE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute domainPolicyObject

Reference to the policy object defining the Local Security Authority (LSA) policy for the host domain.

1. cn: Domain-Policy-Object
2. ldapDisplayName: domainPolicyObject
3. attributeId: 1.2.840.113556.1.4.32
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: bf96795d-0de6-11d0-a285-00aa003049e2
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute domainPolicyReference

The distinguished name of a domain policy object that a policy object copies from.

1. cn: Domain-Policy-Reference
2. ldapDisplayName: domainPolicyReference
3. attributeId: 1.2.840.113556.1.4.422
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 80a67e2a-9f22-11d0-afdd-00c04fd930c9
9. systemOnly: FALSE
10. searchFlags: 0
11. attributeSecurityGuid: a29b89fe-c7e8-11d0-9bae-00c04fd92ef5
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute domainReplica

A Unicode string attribute that gives the NetBIOS name of the PDC at the time of upgrade from Windows NT 4.0, otherwise the default value is NULL.

1. cn: Domain-Replica
2. ldapDisplayName: domainReplica
3. attributeId: 1.2.840.113556.1.4.158
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf96795e-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 32767
12. attributeSecurityGuid: b8119fd0-04f6-4762-ab7a-4986c76b3f9a
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attributeSecurityGuid is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute domainWidePolicy

This attribute is for user-extensible policy to be replicated to the clients.

1. cn: Domain-Wide-Policy
2. ldapDisplayName: domainWidePolicy
3. attributeId: 1.2.840.113556.1.4.421
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 80a67e29-9f22-11d0-afdd-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: a29b89fd-c7e8-11d0-9bae-00c04fd92ef5
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute drink

1. cn: drink
2. ldapDisplayName: drink
3. attributeId: 0.9.2342.19200300.100.1.5
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 1a1aa5b5-262e-4df6-af04-2cf6b0d80048
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 256

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute driverName

1. cn: Driver-Name
2. ldapDisplayName: driverName
3. attributeId: 1.2.840.113556.1.4.229
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 281416c5-1968-11d0-a28f-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute driverVersion

1. cn: Driver-Version
2. ldapDisplayName: driverVersion
3. attributeId: 1.2.840.113556.1.4.276
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: ba305f6e-47e3-11d0-a1a6-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dSASignature

The DSA-Signature of an object is the [Invocation-ID](#Section_3ac24cae9ec74ba7987821fd42a0371b) 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. mapiID: 32887
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute dSHeuristics

This attribute contains global settings for the entire forest. For more information on global settings, see [[MS-ADTS]](%5bMS-ADTS%5d.pdf#Section_d243592709994c628c6d13ba31a52e1a).

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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute dSUIAdminMaximum

This is the default maximum number of objects that will be shown in a container by the administration user interface (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
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute dSUIShellMaximum

This attribute specifies the default maximum number of objects that will be 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
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute eFSPolicy

The Encrypting File System (EFS) Policy.

1. cn: EFSPolicy
2. ldapDisplayName: eFSPolicy
3. attributeId: 1.2.840.113556.1.4.268
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 8e4eb2ec-4712-11d0-a1a0-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: a29b89fd-c7e8-11d0-9bae-00c04fd92ef5
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute employeeNumber

This attribute specifies the number assigned to an employee other than the 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
12. mapiID: 35943

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, the following attributes are defined differently.

1. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

## 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
12. mapiID: 35945

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, the following attributes are defined differently.

1. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

## Attribute Enabled

This attribute is used to signify whether 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. mapiID: 35873
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute enabledConnection

This attribute specifies 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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute enrollmentProviders

Public key infrastructure (PKI) certificate templates.

1. cn: Enrollment-Providers
2. ldapDisplayName: enrollmentProviders
3. attributeId: 1.2.840.113556.1.4.825
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 2a39c5b3-8960-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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 object class. The value of this attribute is the time in seconds that the entry will continue 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 be changed only 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: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute extendedCharsAllowed

This attribute specifies 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. mapiID: 32935
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, the following attributes are defined differently.

1. systemOnly: TRUE

The schemaFlagsEx attribute was added to this attribute definition in 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, lDAPDisplayName, and schemaIDGUID 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
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute extensionName

This attribute specifies the name of a property page 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. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 255
12. mapiID: 32937
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute extraColumns

This is a multivalued attribute whose value(s) consist of a 5 tuple: (attribute name), (column title), (default visibility (0,1)), (column width (-1 for auto width)), and 0 (reserved for future use). 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
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute facsimileTelephoneNumber

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. mapiID: 14883
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fileExtPriority

This attribute specifies a list of file extensions in an application package and their associated priorities.

1. cn: File-Ext-Priority
2. ldapDisplayName: fileExtPriority
3. attributeId: 1.2.840.113556.1.4.816
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: d9e18315-8939-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute flags

To be used by the object to store bit information.

1. cn: Flags
2. ldapDisplayName: flags
3. attributeId: 1.2.840.113556.1.4.38
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf967976-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute flatName

For Windows NT domains, the flat name is the NetBIOS name. For links with non–Windows NT domains, the flat name is the identifying name of that domain or it is NULL.

1. cn: Flat-Name
2. ldapDisplayName: flatName
3. attributeId: 1.2.840.113556.1.4.511
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: b7b13117-b82e-11d0-afee-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute forceLogoff

This attribute is used in computing the kickoff time. Logoff time minus Force Log Off equals kickoff time.

1. cn: Force-Logoff
2. ldapDisplayName: forceLogoff
3. attributeId: 1.2.840.113556.1.4.39
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf967977-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: b8119fd0-04f6-4762-ab7a-4986c76b3f9a
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attributeSecurityGuid is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute foreignIdentifier

This attribute specifies the security properties used by a foreign system.

1. cn: Foreign-Identifier
2. ldapDisplayName: foreignIdentifier
3. attributeId: 1.2.840.113556.1.4.356
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 3e97891e-8c01-11d0-afda-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute friendlyNames

This attribute specifies a list of default friendly name definitions supported by a catalog.

1. cn: Friendly-Names
2. ldapDisplayName: friendlyNames
3. attributeId: 1.2.840.113556.1.4.682
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 7bfdcb88-4807-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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 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
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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: fATTINDEX
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute frsComputerReference

This File Replication service (FRS) attribute contains a reference to a replica set member's computer object.

1. cn: Frs-Computer-Reference
2. ldapDisplayName: frsComputerReference
3. attributeId: 1.2.840.113556.1.4.869
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 2a132578-9373-11d1-aebc-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 102
12. isMemberOfPartialAttributeSet: TRUE
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
14. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute frsComputerReferenceBL

This FRS attribute is a back link attribute of [Attribute frsComputerReference](#Section_c4f47ec56f6c4fd4b2f15b2a235e4471) and contains a reference to replica sets to which this computer belongs.

1. cn: Frs-Computer-Reference-BL
2. ldapDisplayName: frsComputerReferenceBL
3. attributeId: 1.2.840.113556.1.4.870
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 2a132579-9373-11d1-aebc-0000f80367c1
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 103
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSControlDataCreation

This FRS attribute contains a Warning/Error level pair for file data creation (megabyte (MB) per second).

1. cn: FRS-Control-Data-Creation
2. ldapDisplayName: fRSControlDataCreation
3. attributeId: 1.2.840.113556.1.4.871
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 2a13257a-9373-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 32
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSControlInboundBacklog

This FRS attribute contains a Warning/Error level pair for inbound backlog (number of files).

1. cn: FRS-Control-Inbound-Backlog
2. ldapDisplayName: fRSControlInboundBacklog
3. attributeId: 1.2.840.113556.1.4.872
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 2a13257b-9373-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 32
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSControlOutboundBacklog

This FRS attribute contains a Warning/Error level pair for outbound backlog (number of files).

1. cn: FRS-Control-Outbound-Backlog
2. ldapDisplayName: fRSControlOutboundBacklog
3. attributeId: 1.2.840.113556.1.4.873
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 2a13257c-9373-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 32
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSDirectoryFilter

This FRS attribute contains a list of directories excluded from file replication (for example, the "temp" directory or the "obj" directory).

1. cn: FRS-Directory-Filter
2. ldapDisplayName: fRSDirectoryFilter
3. attributeId: 1.2.840.113556.1.4.484
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 1be8f171-a9ff-11d0-afe2-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 2048
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSDSPoll

This FRS attribute contains the DS polling interval for the file replication engine.

1. cn: FRS-DS-Poll
2. ldapDisplayName: fRSDSPoll
3. attributeId: 1.2.840.113556.1.4.490
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 1be8f177-a9ff-11d0-afe2-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSExtensions

This FRS attribute contains binary data used by file replication.

1. cn: FRS-Extensions
2. ldapDisplayName: fRSExtensions
3. attributeId: 1.2.840.113556.1.4.536
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 52458020-ca6a-11d0-afff-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 65536
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSFaultCondition

This FRS attribute contains the fault condition for a member.

1. cn: FRS-Fault-Condition
2. ldapDisplayName: fRSFaultCondition
3. attributeId: 1.2.840.113556.1.4.491
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 1be8f178-a9ff-11d0-afe2-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 16
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSFileFilter

This FRS attribute contains the list of file extensions excluded from file replication.

1. cn: FRS-File-Filter
2. ldapDisplayName: fRSFileFilter
3. attributeId: 1.2.840.113556.1.4.483
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 1be8f170-a9ff-11d0-afe2-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 2048
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSFlags

This FRS attribute contains the FRS option flags.

1. cn: FRS-Flags
2. ldapDisplayName: fRSFlags
3. attributeId: 1.2.840.113556.1.4.874
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 2a13257d-9373-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSLevelLimit

This FRS attribute contains the limit depth of the directory tree to replicate for file replication.

1. cn: FRS-Level-Limit
2. ldapDisplayName: fRSLevelLimit
3. attributeId: 1.2.840.113556.1.4.534
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 5245801e-ca6a-11d0-afff-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSMemberReference

This FRS attribute contains a reference to the member object for this subscriber.

1. cn: FRS-Member-Reference
2. ldapDisplayName: fRSMemberReference
3. attributeId: 1.2.840.113556.1.4.875
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 2a13257e-9373-11d1-aebc-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 104
12. isMemberOfPartialAttributeSet: TRUE
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
14. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSMemberReferenceBL

This FRS attribute is the back link attribute of [Attribute fRSMemberReference](#Section_08223aed1792465f92d1a29589930610) and contains a reference to subscriber objects for this member.

1. cn: FRS-Member-Reference-BL
2. ldapDisplayName: fRSMemberReferenceBL
3. attributeId: 1.2.840.113556.1.4.876
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 2a13257f-9373-11d1-aebc-0000f80367c1
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 105
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSPartnerAuthLevel

This FRS attribute contains the remote procedure call (RPC) security level.

1. cn: FRS-Partner-Auth-Level
2. ldapDisplayName: fRSPartnerAuthLevel
3. attributeId: 1.2.840.113556.1.4.877
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 2a132580-9373-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSPrimaryMember

This FRS attribute contains a reference to the primary member of a replica set.

1. cn: FRS-Primary-Member
2. ldapDisplayName: fRSPrimaryMember
3. attributeId: 1.2.840.113556.1.4.878
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 2a132581-9373-11d1-aebc-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. linkID: 106
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSReplicaSetGUID

This FRS attribute contains a GUID that identifies an FRS replica set.

1. cn: FRS-Replica-Set-GUID
2. ldapDisplayName: fRSReplicaSetGUID
3. attributeId: 1.2.840.113556.1.4.533
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 5245801a-ca6a-11d0-afff-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 16
11. rangeUpper: 16
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSReplicaSetType

This FRS attribute contains a code that indicates whether this is a system volume (SYSVOL) replica set, a distributed file system (DFS) replica set, or other replica set.

1. cn: FRS-Replica-Set-Type
2. ldapDisplayName: fRSReplicaSetType
3. attributeId: 1.2.840.113556.1.4.31
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 26d9736b-6070-11d1-a9c6-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSRootPath

This FRS attribute contains a path to the root of the replicated file system tree.

1. cn: FRS-Root-Path
2. ldapDisplayName: fRSRootPath
3. attributeId: 1.2.840.113556.1.4.487
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 1be8f174-a9ff-11d0-afe2-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 2048
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSRootSecurity

This FRS attribute contains a security descriptor of the replica set root for file replication.

1. cn: FRS-Root-Security
2. ldapDisplayName: fRSRootSecurity
3. attributeId: 1.2.840.113556.1.4.535
4. attributeSyntax: 2.5.5.15
5. omSyntax: 66
6. isSingleValued: TRUE
7. schemaIdGuid: 5245801f-ca6a-11d0-afff-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 65535
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSServiceCommand

This FRS attribute contains a Unicode string that an administrator can set to pass a command to every replica set member.

1. cn: FRS-Service-Command
2. ldapDisplayName: fRSServiceCommand
3. attributeId: 1.2.840.113556.1.4.500
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: ddac0cee-af8f-11d0-afeb-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 512
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSServiceCommandStatus

This FRS attribute contains the response from the last command issued to a member.

1. cn: FRS-Service-Command-Status
2. ldapDisplayName: fRSServiceCommandStatus
3. attributeId: 1.2.840.113556.1.4.879
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 2a132582-9373-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 512
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSStagingPath

This FRS attribute contains a path to the file replication staging area.

1. cn: FRS-Staging-Path
2. ldapDisplayName: fRSStagingPath
3. attributeId: 1.2.840.113556.1.4.488
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 1be8f175-a9ff-11d0-afe2-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 2048
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSTimeLastCommand

This FRS attribute contains the time in which the last command was executed.

1. cn: FRS-Time-Last-Command
2. ldapDisplayName: fRSTimeLastCommand
3. attributeId: 1.2.840.113556.1.4.880
4. attributeSyntax: 2.5.5.11
5. omSyntax: 23
6. isSingleValued: TRUE
7. schemaIdGuid: 2a132583-9373-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSTimeLastConfigChange

This FRS attribute contains the time in which the last configuration change was accepted.

1. cn: FRS-Time-Last-Config-Change
2. ldapDisplayName: fRSTimeLastConfigChange
3. attributeId: 1.2.840.113556.1.4.881
4. attributeSyntax: 2.5.5.11
5. omSyntax: 23
6. isSingleValued: TRUE
7. schemaIdGuid: 2a132584-9373-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSUpdateTimeout

This FRS attribute contains the maximum time, in minutes, to wait to complete an update before giving up.

1. cn: FRS-Update-Timeout
2. ldapDisplayName: fRSUpdateTimeout
3. attributeId: 1.2.840.113556.1.4.485
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 1be8f172-a9ff-11d0-afe2-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSVersion

This FRS attribute contains the version number and build date.

1. cn: FRS-Version
2. ldapDisplayName: fRSVersion
3. attributeId: 1.2.840.113556.1.4.882
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 2a132585-9373-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 32
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSVersionGUID

If this FRS attribute is present, changing its value indicates that a configuration change has been made on this replica set.

1. cn: FRS-Version-GUID
2. ldapDisplayName: fRSVersionGUID
3. attributeId: 1.2.840.113556.1.4.43
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 26d9736c-6070-11d1-a9c6-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 16
11. rangeUpper: 16
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute fRSWorkingPath

This FRS attribute contains the path to the file replication database.

1. cn: FRS-Working-Path
2. ldapDisplayName: fRSWorkingPath
3. attributeId: 1.2.840.113556.1.4.486
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 1be8f173-a9ff-11d0-afe2-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 2048
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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, in hours, between 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. mapiID: 32943
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute gecos

The **GECOS** field (the common name, as specified in [[RFC2307]](https://go.microsoft.com/fwlink/?LinkId=90333) section 3).

1. cn: Gecos
2. ldapDisplayName: gecos
3. attributeId: 1.3.6.1.1.1.1.2
4. attributeSyntax: 2.5.5.5
5. omSyntax: 22
6. isSingleValued: TRUE
7. schemaIdGuid: a3e03f1f-1d55-4253-a0af-30c2a784e46e
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 10240

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute generatedConnection

Set to TRUE if this connection was created by autotopology 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: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute generationQualifier

Indicates a person's generation; for example, junior (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
12. mapiID: 35923
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute gidNumber

An integer uniquely identifying a group in an administrative domain, as specified in [[RFC2307]](https://go.microsoft.com/fwlink/?LinkId=90333).

1. cn: GidNumber
2. ldapDisplayName: gidNumber
3. attributeId: 1.3.6.1.1.1.1.1
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: c5b95f0c-ec9e-41c4-849c-b46597ed6696
8. systemOnly: FALSE
9. searchFlags: fATTINDEX

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute givenName

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. mapiID: 14854
14. isMemberOfPartialAttributeSet: TRUE
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
16. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute globalAddressList

This attribute is used on an Exchange Server container to store the distinguished name of a newly created global address list (GAL). Once this attribute has at least one entry, the implementer can enable MAPI clients to use a GAL.

1. cn: Global-Address-List
2. ldapDisplayName: globalAddressList
3. attributeId: 1.2.840.113556.1.4.1245
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: f754c748-06f4-11d2-aa53-00c04fd7d83a
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute globalAddressList2

This attribute is used on an Exchange Server container to store the distinguished name of a newly created GAL. Once this attribute has at least one entry, the implementer can enable MAPI clients to use a GAL. Similar to [globalAddressList](#Section_b28249c9896443ee870308dfafafdc7f), it differs by being a linked attribute.

1. cn: Global-Address-List2
2. ldapDisplayName: globalAddressList2
3. attributeId: 1.2.840.113556.1.4.2047
4. attributeSyntax: 2.5.5.1
5. linkID: 2124
6. omSyntax: 127
7. omObjectClass: 1.3.12.2.1011.28.0.714
8. isSingleValued: FALSE
9. schemaIdGuid: 4898f63d-4112-477c-8826-3ca00bd8277d
10. systemOnly: FALSE
11. searchFlags: 0
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute gPCFileSysPath

This attribute specifies the Universal Naming Convention (UNC) path to the Group Policy Object template located in the system volume (SYSVOL).

1. cn: GPC-File-Sys-Path
2. ldapDisplayName: gPCFileSysPath
3. attributeId: 1.2.840.113556.1.4.894
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: f30e3bc1-9ff0-11d1-b603-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute gPCFunctionalityVersion

This attribute specifies the version of the Group Policy Object Editor that created this object.

1. cn: GPC-Functionality-Version
2. ldapDisplayName: gPCFunctionalityVersion
3. attributeId: 1.2.840.113556.1.4.893
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: f30e3bc0-9ff0-11d1-b603-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute gPCMachineExtensionNames

This attribute is used by the Group Policy Object (GPO) for machine policies.

1. cn: GPC-Machine-Extension-Names
2. ldapDisplayName: gPCMachineExtensionNames
3. attributeId: 1.2.840.113556.1.4.1348
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 32ff8ecc-783f-11d2-9916-0000f87a57d4
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute gPCUserExtensionNames

This attribute is used by the GPO for user policies.

1. cn: GPC-User-Extension-Names
2. ldapDisplayName: gPCUserExtensionNames
3. attributeId: 1.2.840.113556.1.4.1349
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 42a75fc6-783f-11d2-9916-0000f87a57d4
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute gPCWQLFilter

This attribute is used to store a string that contains a GUID for the filter and a Windows Management Instrumentation (WMI) namespace path.

1. cn: GPC-WQL-Filter
2. ldapDisplayName: gPCWQLFilter
3. attributeId: 1.2.840.113556.1.4.1694
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 7bd4c7a6-1add-4436-8c04-3999a880154c
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute gPLink

This attribute specifies a value used by the Group Policy Core Protocol. See [[MS-GPOL]](%5bMS-GPOL%5d.pdf#Section_62d1292462524052996f161d2b9019f4) section 2.2.2.

1. cn: GP-Link
2. ldapDisplayName: gPLink
3. attributeId: 1.2.840.113556.1.4.891
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: f30e3bbe-9ff0-11d1-b603-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. isMemberOfPartialAttributeSet: TRUE
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute gPOptions

Options that affect all Group Policy associated with the object hosting this property.

1. cn: GP-Options
2. ldapDisplayName: gPOptions
3. attributeId: 1.2.840.113556.1.4.892
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: f30e3bbf-9ff0-11d1-b603-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute groupAttributes

1. cn: Group-Attributes
2. ldapDisplayName: groupAttributes
3. attributeId: 1.2.840.113556.1.4.152
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf96797e-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute groupMembershipSAM

Windows NT security. Down-level Windows NT support.

1. cn: Group-Membership-SAM
2. ldapDisplayName: groupMembershipSAM
3. attributeId: 1.2.840.113556.1.4.166
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: bf967980-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute groupPriority

1. cn: Group-Priority
2. ldapDisplayName: groupPriority
3. attributeId: 1.2.840.113556.1.4.345
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: eea65905-8ac6-11d0-afda-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute groupsToIgnore

1. cn: Groups-to-Ignore
2. ldapDisplayName: groupsToIgnore
3. attributeId: 1.2.840.113556.1.4.344
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: eea65904-8ac6-11d0-afda-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute hasMasterNCs

This attribute contains the distinguished names of naming contexts. Forward link for the Mastered-By attribute.

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. mapiID: 32950
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute hasPartialReplicaNCs

Sibling to [Has-Master-NCs](#Section_051f12ad8cc84fa9a45291303d8c4388). The Has-Partial-Replica-NCs attribute reflects the distinguished name for all other-domain NCs that have been replicated into a global catalog (GC).

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. mapiID: 32949
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute helpData16

This attribute was used for the Win16 Help file format for Exchange Server 4.0. It is not used for any other versions of Exchange Server.

1. cn: Help-Data16
2. ldapDisplayName: helpData16
3. attributeId: 1.2.840.113556.1.2.402
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 5fd424a7-1262-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 32768
12. mapiID: 32826
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute helpData32

This attribute was used for the Win32 Help file format for Exchange Server 4.0. It is not used for any other versions of Exchange Server.

1. cn: Help-Data32
2. ldapDisplayName: helpData32
3. attributeId: 1.2.840.113556.1.2.9
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 5fd424a8-1262-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 32768
12. mapiID: 32784
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute helpFileName

This attribute was used for Exchange Server 4.0. It contained the name that is used for the file when the provider downloaded Help data to a client computer. It is not used for any other versions of Exchange Server.

1. cn: Help-File-Name
2. ldapDisplayName: helpFileName
3. attributeId: 1.2.840.113556.1.2.327
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 5fd424a9-1262-11d0-a060-00aa006c33ed
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 13
12. mapiID: 32827
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute hideFromAB

This is a defunct attribute and is not to be used.

1. cn: Hide-From-AB
2. ldapDisplayName: hideFromAB
3. attributeId: 1.2.840.113556.1.4.1780
4. attributeSyntax: 2.5.5.8
5. omSyntax: 1
6. isSingleValued: TRUE
7. schemaIdGuid: ec05b750-a977-4efe-8e8d-ba6c1a6e33a8
8. systemOnly: FALSE
9. searchFlags: 0

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute homeDirectory

This attribute specifies the home directory for the account. This value can be a null string.

1. cn: Home-Directory
2. ldapDisplayName: homeDirectory
3. attributeId: 1.2.840.113556.1.4.44
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967985-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. attributeSecurityGuid: 5f202010-79a5-11d0-9020-00c04fc2d4cf
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute homeDrive

This attribute specifies the drive letter to which to map the UNC path specified by [homeDirectory](#Section_10d700cb29544446a9b469113344421c). The drive letter is specified in the form "<DriveLetter>:" where <DriveLetter> is the letter of the drive to map. The <DriveLetter> is a single, uppercase letter and the colon (:) is required.

1. cn: Home-Drive
2. ldapDisplayName: homeDrive
3. attributeId: 1.2.840.113556.1.4.45
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf967986-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. attributeSecurityGuid: 5f202010-79a5-11d0-9020-00c04fc2d4cf
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute homePhone

The user's main home telephone 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. mapiID: 14857
14. isMemberOfPartialAttributeSet: TRUE
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, the following attributes are defined differently.

1. systemFlags: 0

## Attribute homePostalAddress

This attribute specifies a 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
13. mapiID: 14941

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

On Windows 2000 Server, the following attribute is defined differently.

1. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

## Attribute host

This attribute type specifies a host computer.

1. cn: host
2. ldapDisplayName: host
3. attributeId: 0.9.2342.19200300.100.1.9
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 6043df71-fa48-46cf-ab7c-cbd54644b22d
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 256

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute houseIdentifier

The houseIdentifier 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: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 2048
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute implementedCategories

This attribute specifies a list of component category IDs that this object implements.

1. cn: Implemented-Categories
2. ldapDisplayName: implementedCategories
3. attributeId: 1.2.840.113556.1.4.320
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: 7d6c0e92-7e20-11d0-afd6-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: fATTINDEX
10. rangeLower: 16
11. rangeUpper: 16
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute indexedScopes

This attribute specifies the list of indexed directory scopes (for example, C:\ or D:\).

1. cn: IndexedScopes
2. ldapDisplayName: indexedScopes
3. attributeId: 1.2.840.113556.1.4.681
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: 7bfdcb87-4807-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute info

This attribute specifies the user's comments. This string can be a null string.

1. cn: Comment
2. ldapDisplayName: info
3. attributeId: 1.2.840.113556.1.2.81
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: bf96793e-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 1
11. rangeUpper: 1024
12. attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
13. mapiID: 12292
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute initialAuthIncoming

This attribute is not necessary for Active Directory functioning, and this protocol does not define a format beyond that required by the schema.

1. cn: Initial-Auth-Incoming
2. ldapDisplayName: initialAuthIncoming
3. attributeId: 1.2.840.113556.1.4.539
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 52458023-ca6a-11d0-afff-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute initialAuthOutgoing

This attribute is used to contain information about an initial outgoing authentication sent by the authentication server for this domain to the client that requested authentication. The server that uses this attribute receives the authorization from the authentication server and sends it to the client.

1. cn: Initial-Auth-Outgoing
2. ldapDisplayName: initialAuthOutgoing
3. attributeId: 1.2.840.113556.1.4.540
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 52458024-ca6a-11d0-afff-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute initials

This attribute contains the initials for parts of the user's full name. This 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
13. mapiID: 14858
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute installUiLevel

This attribute specifies information for the type (level) of installation that is used for the user interface. Possible installation levels are as follows: 2 INSTALLUILEVEL\_NONE (silent installation), 3 INSTALLUILEVEL\_BASIC (simple installation with error handling), 4 INSTALLUILEVEL\_REDUCED (authored UI, wizard dialogs suppressed), and 5 INSTALLUILEVEL\_FULL (authored UI with wizards, progress, and errors).

1. cn: Install-Ui-Level
2. ldapDisplayName: installUiLevel
3. attributeId: 1.2.840.113556.1.4.847
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: 96a7dd64-9118-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute instanceType

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. This attribute can be zero or a combination of one or more of the following bit flags.

| Bit flag | Meaning |
| --- | --- |
| 0x00000001 | The head of naming context. |
| 0x00000002 | This replica is not instantiated. |
| 0x00000004 | The object is writable on this directory. |
| 0x00000008 | The naming context above this one on this directory is held. |
| 0x00000010 | The naming context is being constructed for the first time via replication. |
| 0x00000020 | The naming context is being removed from the local directory system agent (DSA). |

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. mapiID: 32957
11. isMemberOfPartialAttributeSet: TRUE
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
13. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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. mapiID: 32958
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute interSiteTopologyFailover

This attribute indicates how much time can transpire since the last keep-alive message 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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

**Note**  This attribute is used for the server-to-server replication implementation only; the meaning is not significant to Windows clients.

## Attribute interSiteTopologyGenerator

This attribute specifies support failover for the machine designated as the one that runs Knowledge Consistency Checker (KCC) 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
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

**Note**  This attribute is used for the server-to-server replication implementation only; the meaning is not significant to Windows clients.

## Attribute interSiteTopologyRenew

This attribute indicates how often the intersite topology generator updates the keep-alive message that is sent to domain controllers that are 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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

**Note**  This attribute is used for the server-to-server replication implementation only; the meaning is not significant to Windows clients.

## Attribute invocationId

This attribute is used to uniquely identify the specific version of the directory database associated with a domain controller.

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. mapiID: 32959
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, the following attributes are defined differently.

1. searchFlags: 0

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute ipHostNumber

This attribute specifies the IP address as a dotted decimal, omitting leading zeros.

1. cn: IpHostNumber
2. ldapDisplayName: ipHostNumber
3. attributeId: 1.3.6.1.1.1.1.19
4. attributeSyntax: 2.5.5.5
5. omSyntax: 22
6. isSingleValued: FALSE
7. schemaIdGuid: de8bb721-85dc-4fde-b687-9657688e667e
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 128

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipNetmaskNumber

This attribute specifies the IP netmask as a dotted decimal, omitting leading zeros.

1. cn: IpNetmaskNumber
2. ldapDisplayName: ipNetmaskNumber
3. attributeId: 1.3.6.1.1.1.1.21
4. attributeSyntax: 2.5.5.5
5. omSyntax: 22
6. isSingleValued: TRUE
7. schemaIdGuid: 6ff64fcd-462e-4f62-b44a-9a5347659eb9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 128

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipNetworkNumber

This attribute specifies the IP network as a dotted decimal, omitting leading zeros.

1. cn: IpNetworkNumber
2. ldapDisplayName: ipNetworkNumber
3. attributeId: 1.3.6.1.1.1.1.20
4. attributeSyntax: 2.5.5.5
5. omSyntax: 22
6. isSingleValued: TRUE
7. schemaIdGuid: 4e3854f4-3087-42a4-a813-bb0c528958d3
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 128

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipPhone

This attribute specifies the TCP/IP address for the telephone. It is 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
13. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, rangeUpper is not defined.

## Attribute ipProtocolNumber

This attribute is part of the protocols map and stores the unique number that identifies the protocol.

1. cn: IpProtocolNumber
2. ldapDisplayName: ipProtocolNumber
3. attributeId: 1.3.6.1.1.1.1.17
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: ebf5c6eb-0e2d-4415-9670-1081993b4211
8. systemOnly: FALSE
9. searchFlags: 0

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipsecData

The Ipsec-Data attribute is for internal use only.

1. cn: Ipsec-Data
2. ldapDisplayName: ipsecData
3. attributeId: 1.2.840.113556.1.4.623
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: b40ff81f-427a-11d1-a9c2-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipsecDataType

The Ipsec-Data-Type attribute is for internal use only.

1. cn: Ipsec-Data-Type
2. ldapDisplayName: ipsecDataType
3. attributeId: 1.2.840.113556.1.4.622
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: b40ff81e-427a-11d1-a9c2-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipsecFilterReference

The Ipsec-Filter-Reference attribute.

1. cn: Ipsec-Filter-Reference
2. ldapDisplayName: ipsecFilterReference
3. attributeId: 1.2.840.113556.1.4.629
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: b40ff823-427a-11d1-a9c2-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipsecID

The Ipsec-ID attribute.

1. cn: Ipsec-ID
2. ldapDisplayName: ipsecID
3. attributeId: 1.2.840.113556.1.4.621
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: b40ff81d-427a-11d1-a9c2-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipsecISAKMPReference

The Ipsec-ISAKMP-Reference attribute (see [[MS-GPIPSEC]](%5bMS-GPIPSEC%5d.pdf#Section_dc377790742947fc9b5559589e7a586b) section 2.2.1.1.1).

1. cn: Ipsec-ISAKMP-Reference
2. ldapDisplayName: ipsecISAKMPReference
3. attributeId: 1.2.840.113556.1.4.626
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: b40ff820-427a-11d1-a9c2-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipsecName

The Ipsec-Name attribute.

1. cn: Ipsec-Name
2. ldapDisplayName: ipsecName
3. attributeId: 1.2.840.113556.1.4.620
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: b40ff81c-427a-11d1-a9c2-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute iPSECNegotiationPolicyAction

The IPSEC-Negotiation-Policy-Action attribute.

1. cn: IPSEC-Negotiation-Policy-Action
2. ldapDisplayName: iPSECNegotiationPolicyAction
3. attributeId: 1.2.840.113556.1.4.888
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 07383075-91df-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipsecNegotiationPolicyReference

The Ipsec-Negotiation-Policy-Reference attribute.

1. cn: Ipsec-Negotiation-Policy-Reference
2. ldapDisplayName: ipsecNegotiationPolicyReference
3. attributeId: 1.2.840.113556.1.4.628
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: b40ff822-427a-11d1-a9c2-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute iPSECNegotiationPolicyType

The IPSEC-Negotiation-Policy-Type attribute.

1. cn: IPSEC-Negotiation-Policy-Type
2. ldapDisplayName: iPSECNegotiationPolicyType
3. attributeId: 1.2.840.113556.1.4.887
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 07383074-91df-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipsecNFAReference

The Ipsec-NFA-Reference attribute (see [[MS-GPIPSEC]](%5bMS-GPIPSEC%5d.pdf#Section_dc377790742947fc9b5559589e7a586b) section 2.2.1.1.1).

1. cn: Ipsec-NFA-Reference
2. ldapDisplayName: ipsecNFAReference
3. attributeId: 1.2.840.113556.1.4.627
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: b40ff821-427a-11d1-a9c2-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipsecOwnersReference

The Ipsec-Owners-Reference attribute.

1. cn: Ipsec-Owners-Reference
2. ldapDisplayName: ipsecOwnersReference
3. attributeId: 1.2.840.113556.1.4.624
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: b40ff824-427a-11d1-a9c2-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipsecPolicyReference

The Ipsec-Policy-Reference attribute.

1. cn: Ipsec-Policy-Reference
2. ldapDisplayName: ipsecPolicyReference
3. attributeId: 1.2.840.113556.1.4.517
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: b7b13118-b82e-11d0-afee-0000f80367c1
9. systemOnly: FALSE
10. searchFlags: 0
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipServicePort

This is a part of the services map and contains the port at which the UNIX service is available.

1. cn: IpServicePort
2. ldapDisplayName: ipServicePort
3. attributeId: 1.3.6.1.1.1.1.15
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: ff2daebf-f463-495a-8405-3e483641eaa2
8. systemOnly: FALSE
9. searchFlags: 0

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute ipServiceProtocol

This is a part of the services map and stores the protocol number for a UNIX service.

1. cn: IpServiceProtocol
2. ldapDisplayName: ipServiceProtocol
3. attributeId: 1.3.6.1.1.1.1.16
4. attributeSyntax: 2.5.5.5
5. omSyntax: 22
6. isSingleValued: FALSE
7. schemaIdGuid: cd96ec0b-1ed6-43b4-b26b-f170b645883f
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 1024

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute isCriticalSystemObject

If TRUE, the object hosting this attribute is 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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute isDeleted

If TRUE, this object has been marked for deletion and will be removed from the Active Directory system [[MS-ADOD]](%5bMS-ADOD%5d.pdf#Section_5ff67bf4c14548cb89cd4f5482d94664).

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. mapiID: 32960
11. isMemberOfPartialAttributeSet: TRUE
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
13. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute isPrivilegeHolder

This attribute specifies a back link to privileges held by a given principal.

1. cn: Is-Privilege-Holder
2. ldapDisplayName: isPrivilegeHolder
3. attributeId: 1.2.840.113556.1.4.638
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: FALSE
8. schemaIdGuid: 19405b9c-3cfa-11d1-a9c0-0000f80367c1
9. systemOnly: TRUE
10. searchFlags: 0
11. linkID: 71
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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 [[MS-ADOD]](%5bMS-ADOD%5d.pdf#Section_5ff67bf4c14548cb89cd4f5482d94664).

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 |
11. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER
12. isMemberOfPartialAttributeSet: TRUE
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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. mapiID: 32961
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute jpegPhoto

Used to store one or more images of a person by using the JPEG File Interchange Format, as specified in [[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: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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
14. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute knowledgeInformation

This attribute specifies a human-readable accumulated description of knowledge that is mastered by a specific DSA.

1. cn: Knowledge-Information
2. ldapDisplayName: knowledgeInformation
3. attributeId: 2.5.4.2
4. attributeSyntax: 2.5.5.4
5. omSyntax: 20
6. isSingleValued: FALSE
7. schemaIdGuid: 1677581f-47f3-11d1-a9c3-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. mapiID: 32963

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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. mapiID: 14887
14. isMemberOfPartialAttributeSet: TRUE
15. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT |
16. FLAG\_ATTR\_REQ\_PARTIAL\_SET\_MEMBER
17. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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 it is intended as a friendly name.

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: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute lastBackupRestorationTime

This attribute specifies when the last system restore 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: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute lastContentIndexed

This attribute specifies the time this volume was last content-indexed.

1. cn: Last-Content-Indexed
2. ldapDisplayName: lastContentIndexed
3. attributeId: 1.2.840.113556.1.4.50
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf967995-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute lastKnownParent

This attribute specifies the distinguished name 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
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute lastLogoff

This attribute specifies the last time the user logged off. 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 logoff time is unknown.

1. cn: Last-Logoff
2. ldapDisplayName: lastLogoff
3. attributeId: 1.2.840.113556.1.4.51
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf967996-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: 5f202010-79a5-11d0-9020-00c04fc2d4cf
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute lastLogon

This attribute specifies the last time the user logged on. 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 logon time is unknown.

1. cn: Last-Logon
2. ldapDisplayName: lastLogon
3. attributeId: 1.2.840.113556.1.4.52
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf967997-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: 5f202010-79a5-11d0-9020-00c04fc2d4cf
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute lastLogonTimestamp

This is the time that the user last logged on to the domain. Whenever a user logs on, the value of this attribute is read from the DC. If msDS-LogonTimeSyncInterval is nonzero, and the value is older than (current\_time - msDS-LogonTimeSyncInterval), the value is updated with the current time. The initial update, after the domain functional level is raised to DS\_BEHAVIOR\_WIN2003 or higher, is calculated as 14 days minus a random percentage of 5 days.

**Note**  This attribute is present on objects only when the domain functional level is DS\_BEHAVIOR\_WIN2003 or higher.

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: FALSE
9. searchFlags: fATTINDEX
10. attributeSecurityGuid: 5f202010-79a5-11d0-9020-00c04fc2d4cf
11. isMemberOfPartialAttributeSet: TRUE
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute lastSetTime

This attribute specifies the last time the secret was changed.

1. cn: Last-Set-Time
2. ldapDisplayName: lastSetTime
3. attributeId: 1.2.840.113556.1.4.53
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf967998-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute lastUpdateSequence

This attribute specifies the update sequence number for the last item in the class store that was changed.

1. cn: Last-Update-Sequence
2. ldapDisplayName: lastUpdateSequence
3. attributeId: 1.2.840.113556.1.4.330
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: TRUE
7. schemaIdGuid: 7d6c0e9c-7e20-11d0-afd6-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute lDAPAdminLimits

This attribute contains a set of attribute-value pairs defining 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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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. mapiID: 33137
13. isMemberOfPartialAttributeSet: TRUE
14. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
15. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute lSACreationTime

This attribute is used to support replication to Windows NT 4.0 domains.

1. cn: LSA-Creation-Time
2. ldapDisplayName: lSACreationTime
3. attributeId: 1.2.840.113556.1.4.66
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679ad-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute lSAModifiedCount

This attribute is used to support replication to Windows NT 4.0 domains.

1. cn: LSA-Modified-Count
2. ldapDisplayName: lSAModifiedCount
3. attributeId: 1.2.840.113556.1.4.67
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679ae-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute legacyExchangeDN

This attribute specifies the distinguished name previously used by Exchange Server.

1. cn: Legacy-Exchange-DN
2. ldapDisplayName: legacyExchangeDN
3. attributeId: 1.2.840.113556.1.4.655
4. attributeSyntax: 2.5.5.4
5. omSyntax: 20
6. isSingleValued: TRUE
7. schemaIdGuid: 28630ebc-41d5-11d1-a9c1-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: fPRESERVEONDELETE| fANR | fATTINDEX
10. attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
11. isMemberOfPartialAttributeSet: TRUE
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in 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. mapiID: 32965
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute linkTrackSecret

This attribute specifies a link to a secret key that allows an encrypted file to be translated into plain text.

1. cn: Link-Track-Secret
2. ldapDisplayName: linkTrackSecret
3. attributeId: 1.2.840.113556.1.4.269
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: 2ae80fe2-47b4-11d0-a1a4-00c04fd930c9
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeLower: 0
11. rangeUpper: 16
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute lmPwdHistory

The password history of the user in LAN Manager (LM) one-way format (OWF). The LM OWF is used for compatibility with LAN Manager 2.x clients, Windows 95 operating system, and Windows 98 operating system.

For more information about usage, refer to [[MS-SAMR]](%5bMS-SAMR%5d.pdf#Section_4df07fab1bbc452f8e927853a3c7e380) sections 3.1.1.6 and 3.1.1.9.1.

1. cn: Lm-Pwd-History
2. ldapDisplayName: lmPwdHistory
3. attributeId: 1.2.840.113556.1.4.160
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: FALSE
7. schemaIdGuid: bf96799d-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute localeID

This attribute specifies a list of locale IDs supported by this application. A locale ID represents a geographic location; for example, a country/region, a city, or a county.

1. cn: Locale-ID
2. ldapDisplayName: localeID
3. attributeId: 1.2.840.113556.1.4.58
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: FALSE
7. schemaIdGuid: bf9679a1-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute localizationDisplayId

This attribute is used to index the Extrts.mc file to get the localized [displayName](#Section_54c39467cda24af1945413b81d30399a) for 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: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute localizedDescription

This attribute specifies the localization ID and display name for an object.

1. cn: Localized-Description
2. ldapDisplayName: localizedDescription
3. attributeId: 1.2.840.113556.1.4.817
4. attributeSyntax: 2.5.5.12
5. omSyntax: 64
6. isSingleValued: FALSE
7. schemaIdGuid: d9e18316-8939-11d1-aebc-0000f80367c1
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute localPolicyFlags

This attribute specifies flags that determine where a machine gets its policy ([Local-Policy-Reference](#Section_19987e835981433ba8ebf5b858c5bfa5)).

1. cn: Local-Policy-Flags
2. ldapDisplayName: localPolicyFlags
3. attributeId: 1.2.840.113556.1.4.56
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf96799e-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute localPolicyReference

This attribute specifies the distinguished name of a local policy object that a policy object copies from.

1. cn: Local-Policy-Reference
2. ldapDisplayName: localPolicyReference
3. attributeId: 1.2.840.113556.1.4.457
4. attributeSyntax: 2.5.5.1
5. omSyntax: 127
6. omObjectClass: 1.3.12.2.1011.28.0.714
7. isSingleValued: TRUE
8. schemaIdGuid: 80a67e4d-9f22-11d0-afdd-00c04fd930c9
9. systemOnly: FALSE
10. searchFlags: 0
11. attributeSecurityGuid: a29b8a01-c7e8-11d0-9bae-00c04fd92ef5
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## 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: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute lockoutDuration

This attribute specifies the amount of time an account is locked due to the [Lockout-Threshold](#Section_8424289e0a60433eabd702ff0c1afd1b) being exceeded. This value is stored as a large integer. It represents the negative of the number of 100 nanosecond intervals that elapse, from the time the Lockout-Threshold is exceeded, before the account is unlocked.

1. cn: Lockout-Duration
2. ldapDisplayName: lockoutDuration
3. attributeId: 1.2.840.113556.1.4.60
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679a5-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: c7407360-20bf-11d0-a768-00aa006e0529
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, rangeUpper is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute lockOutObservationWindow

This attribute specifies the waiting period after which the [Lockout Threshold (section 2.372)](#Section_8424289e0a60433eabd702ff0c1afd1b) is reset. The valid values are <None> and 00:00:00:01 through the [Lockout Duration (section 2.370)](#Section_5952c7f3dd4a4219bcb1dba53eb9266e) value.

1. cn: Lock-Out-Observation-Window
2. ldapDisplayName: lockOutObservationWindow
3. attributeId: 1.2.840.113556.1.4.61
4. attributeSyntax: 2.5.5.16
5. omSyntax: 65
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679a4-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: c7407360-20bf-11d0-a768-00aa006e0529
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute lockoutThreshold

This attribute specifies the number of invalid logon attempts that are permitted before the account is locked out.

1. cn: Lockout-Threshold
2. ldapDisplayName: lockoutThreshold
3. attributeId: 1.2.840.113556.1.4.73
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679a6-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 65535
11. attributeSecurityGuid: c7407360-20bf-11d0-a768-00aa006e0529
12. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
13. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute lockoutTime

This attribute specifies the date and time (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
11. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute loginShell

This attribute specifies the path to the logon shell. For more information, see [[RFC2307]](https://go.microsoft.com/fwlink/?LinkId=90333) section 2.2.

1. cn: LoginShell
2. ldapDisplayName: loginShell
3. attributeId: 1.3.6.1.1.1.1.4
4. attributeSyntax: 2.5.5.5
5. omSyntax: 22
6. isSingleValued: TRUE
7. schemaIdGuid: a553d12c-3231-4c5e-8adf-8d189697721e
8. systemOnly: FALSE
9. searchFlags: 0
10. rangeUpper: 1024

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

## Attribute logonCount

This attribute specifies the number of times that the account has successfully logged on. A value of 0 indicates that the value is unknown.

1. cn: Logon-Count
2. ldapDisplayName: logonCount
3. attributeId: 1.2.840.113556.1.4.169
4. attributeSyntax: 2.5.5.9
5. omSyntax: 2
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679aa-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: 0
10. attributeSecurityGuid: 5f202010-79a5-11d0-9020-00c04fc2d4cf
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT | FLAG\_ATTR\_NOT\_REPLICATED
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute logonHours

This attribute specifies the hours that the user is allowed to log on to the domain.

1. cn: Logon-Hours
2. ldapDisplayName: logonHours
3. attributeId: 1.2.840.113556.1.4.64
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679ab-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. attributeSecurityGuid: 5f202010-79a5-11d0-9020-00c04fc2d4cf
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT
12. schemaFlagsEx: FLAG\_ATTR\_IS\_CRITICAL

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

## Attribute logonWorkstation

For more information, see the userWorkstations attribute in [[MS-ADA3]](%5bMS-ADA3%5d.pdf#Section_4517e8353ee644d4bb95a94b6966bfb0).

1. cn: Logon-Workstation
2. ldapDisplayName: logonWorkstation
3. attributeId: 1.2.840.113556.1.4.65
4. attributeSyntax: 2.5.5.10
5. omSyntax: 4
6. isSingleValued: TRUE
7. schemaIdGuid: bf9679ac-0de6-11d0-a285-00aa003049e2
8. systemOnly: FALSE
9. searchFlags: fCOPY
10. attributeSecurityGuid: 5f202010-79a5-11d0-9020-00c04fc2d4cf
11. systemFlags: FLAG\_SCHEMA\_BASE\_OBJECT

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

# Change Tracking

No table of changes is available. The document is either new or has had no changes since its last release.

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