[MS-ADA2-Diff]:

Active Directory Schema Attributes M

As a result, this document covers not only current and past releases of this technology, but also prerelease versions of this technology.

All preliminary content is formatted with a non-black text color so it can be easily identified. Preliminary text and other content that was not present in previous releases is further identified with underlines, and newly deleted text is identified with strikethroughs.

Because this documentation may change between the preliminary and final updated versions of this technology, there are risks in relying on preliminary documentation. Those risks include but are not limited to additional development obligations and costs. Because preliminary documentation is not yet final and is subject to change, you rely on it at your own risk.

Revision Summary

Date	Comments
03/11/2024	Released Preview Document.

Table of Contents

1 Introduction

Active Directory Schema Attributes M contains a partial list of the objects that exist in the Active Directory schema for Active Directory Domain Services (AD DS); it contains schema objects of type "attribute" whose names start with the letter M. Active Directory and all associated terms and concepts are described in [MS-ADTS].

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

Note: The object definitions in this document are also available for download in LDAP Data Interchange Format (LDIF) at the following location: [MSFT-ADSCHEMA].

Note: The object definitions in this document contain information about the product in which the objects were first implemented in the Active Directory schema. Unless otherwise specified, objects continue to be available in the Active Directory schema in all subsequent versions of the product according to the list of products in [MS-ADTS] section 1.

1.1   (Updated Section) References

[MS-ADA1] Microsoft Corporation, "Active Directory Schema Attributes A-L".

[MS-ADA3] Microsoft Corporation, "Active Directory Schema Attributes N-Z".

[MS-ADOD] Microsoft Corporation, "Active Directory Protocols Overview".

[MS-ADSC] Microsoft Corporation, "Active Directory Schema Classes".

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

[MS-DRSR] Microsoft Corporation, "Directory Replication Service (DRS) Remote Protocol".

[MS-DTYP] Microsoft Corporation, "Windows Data Types".

[MS-LSAD] Microsoft Corporation, "Local Security Authority (Domain Policy) Remote Protocol".

[MS-RDC] Microsoft Corporation, "Remote Differential Compression Algorithm".

[MS-SAMR] Microsoft Corporation, "Security Account Manager (SAM) Remote Protocol (Client-to-Server)".

[MS-WPO] Microsoft Corporation, "Windows Protocols Overview".

[MSDN-ACL] Microsoft Corporation, "ACL structure", http://msdn.microsoft.com/en-us/library/aa374931.aspx

[MSFT-ADSCHEMA] Microsoft Corporation, "Combined Active Directory Schema Classes and Attributes for Windows Server", December 2013, https://www.microsoft.com/en-us/download/details.aspx?id=23782

[RFC2327] Handley, M. and Jacobson, V., "SDP: Session Description Protocol", RFC 2327, April 1998, https://www.rfc-editor.org/info/rfc2327

[RFC2849] Good, G., "The LDAP Data Interchange Format (LDIF) - Technical Specification", RFC 2849, June 2000, https://www.rfc-editor.org/info/rfc2849

[X400] ITU-T, "Message handling systems - Message handling system and service overview", Recommendation F.400/X.400, June 1999, http://www.itu.int/rec/T-REC-X.400/en

2 Attributes

The following sections specify attributes in the Active Directory schema whose names start with the letter M.

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] Note 2.

2.1 Attribute macAddress

This attribute specifies the Media Access Control (MAC) address of a network endpoint in colon-separated hexadecimal notation.

```
cn: MacAddress
ldapDisplayName: macAddress
attributeId: 1.3.6.1.1.1.1.22
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: e6a522dd-9770-43e1-89de-1de5044328f7
systemOnly: FALSE
searchFlags: 0
rangeUpper: 128
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2 operating system.

2.2 Attribute machineArchitecture

This attribute specifies a list of hardware processors supported by a given application.

```
cn: Machine-Architecture
ldapDisplayName: machineArchitecture
attributeId: 1.2.840.113556.1.4.68
attributeSyntax: 2.5.5.9
omSyntax: 10
isSingleValued: FALSE
schemaIdGuid: bf9679af-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server operating system.

2.3 Attribute machinePasswordChangeInterval

```
cn: Machine-Password-Change-Interval
ldapDisplayName: machinePasswordChangeInterval
attributeId: 1.2.840.113556.1.4.520
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: c9b6358e-bb38-11d0-afef-0000f80367c1
systemOnly: FALSE
searchFlags: 0
```

```
attributeSecurityGuid: a29b89fe-c7e8-11d0-9bae-00c04fd92ef5
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.4 Attribute machineRole

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

```
cn: Machine-Role
ldapDisplayName: machineRole
attributeId: 1.2.840.113556.1.4.71
attributeSyntax: 2.5.5.9
omSyntax: 10
isSingleValued: TRUE
schemaIdGuid: bf9679b2-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.5 Attribute machineWidePolicy

For a given Active Directory domain, this attribute specifies the policy to be replicated to the clients.

```
cn: Machine-Wide-Policy
ldapDisplayName: machineWidePolicy
attributeId: 1.2.840.113556.1.4.459
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 80a67e4f-9f22-11d0-afdd-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: a29b8a01-c7e8-11d0-9bae-00c04fd92ef5
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.6 Attribute mail

This attribute specifies the list of email addresses belonging to a contact object in the directory.

```
cn: E-mail-Addresses
ldapDisplayName: mail
attributeId: 0.9.2342.19200300.100.1.3
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967961-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fATTINDEX
```

```
rangeLower: 0
rangeUpper: 256
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
mapiID: 14846
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.7   Attribute mailAddress

This attribute specifies the email address to be used by a DC when email–based replication is configured.

```
cn: SMTP-Mail-Address
ldapDisplayName: mailAddress
attributeId: 1.2.840.113556.1.4.786
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 26d9736f-6070-11d1-a9c6-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.8   Attribute managedBy

This attribute can be used by administrators to specify the DN of an object representing the entity assigned to manage this object. A read-only domain controller object uses this attribute to store the DNs of security principals who would be implicit members of the Administrators group of the RODC as specified in [MS-ADTS] section 6.1.1.3.2.

```
cn: Managed-By
ldapDisplayName: managedBy
attributeId: 1.2.840.113556.1.4.653
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 0296c120-40da-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
linkID: 72
mapiID: 32780
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.9   Attribute managedObjects

This attribute specifies the list of objects that are managed by a user.

```
cn: Managed-Objects
ldapDisplayName: managedObjects
attributeId: 1.2.840.113556.1.4.654
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 0296c124-40da-11d1-a9c0-0000f80367c1
systemOnly: TRUE
searchFlags: 0
linkID: 73
mapiID: 32804
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.10 Attribute manager

For user object *a*, this attribute specifies the name of the user who is *a*'s manager.

```
cn: Manager
ldapDisplayName: manager
attributeId: 0.9.2342.19200300.100.1.10
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: bf9679b5-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
linkID: 42
mapiID: 32773
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.11 Attribute mAPIID

This attribute specifies an integer used by Messaging Application Program Interface (MAPI) clients to define behavior.

```
cn: MAPI-ID
ldapDisplayName: mAPIID
attributeId: 1.2.840.113556.1.2.49
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf9679b7-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
mapiID: 32974
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.12 Attribute marshalledInterface

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

```
cn: Marshalled-Interface
ldapDisplayName: marshalledInterface
attributeId: 1.2.840.113556.1.4.72
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: bf9679b9-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.13 Attribute masteredBy

This attribute specifies the distinguished name (DN) for the NTDS Settings objects, and is the back link for the hasMasterNCs attribute as specified in [MS-ADA1] section 2.289.

```
cn: Mastered-By
ldapDisplayName: masteredBy
attributeId: 1.2.840.113556.1.4.1409
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: e48e64e0-12c9-11d3-9102-00c04fd91ab1
systemOnly: TRUE
searchFlags: 0
linkID: 77
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.14 Attribute maxPwdAge

This attribute specifies the maximum amount of time that a password is valid. It is stored as a negative FILETIME, which represents a period of time expressed in a negative number of 100-nanosecond time slices. For example, a period of 20 minutes is represented as:

-12000000000

```
cn: Max-Pwd-Age
ldapDisplayName: maxPwdAge
attributeId: 1.2.840.113556.1.4.74
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
```

```
schemaIdGuid: bf9679bb-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: c7407360-20bf-11d0-a768-00aa006e0529
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.15 Attribute maxRenewAge

This attribute specifies the time period (in days) during which a user's ticket-granting ticket (TGT) can be renewed for the purposes of Kerberos authentication.

```
cn: Max-Renew-Age
ldapDisplayName: maxRenewAge
attributeId: 1.2.840.113556.1.4.75
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: bf9679bc-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.16 Attribute maxStorage

This attribute specifies the maximum amount of disk space that a given user can consume.

```
cn: Max-Storage
ldapDisplayName: maxStorage
attributeId: 1.2.840.113556.1.4.76
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: bf9679bd-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.17 Attribute maxTicketAge

This attribute specifies the maximum amount of time (in hours) that a user's ticket-granting ticket (TGT) can be used for the purpose of Kerberos authentication.

```
cn: Max-Ticket-Age
ldapDisplayName: maxTicketAge
attributeId: 1.2.840.113556.1.4.77
attributeSyntax: 2.5.5.16
```

```
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: bf9679be-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.18 Attribute mayContain

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

```
cn: May-Contain
ldapDisplayName: mayContain
attributeId: 1.2.840.113556.1.2.25
attributeSyntax: 2.5.5.2
omSyntax: 6
isSingleValued: FALSE
schemaIdGuid: bf9679bf-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.19 Attribute meetingAdvertiseScope

For a given meeting object, this attribute specifies whether the data contained is visible or advertised outside the corporate network.

```
cn: meetingAdvertiseScope
ldapDisplayName: meetingAdvertiseScope
attributeId: 1.2.840.113556.1.4.582
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 11b6cc8b-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.20 Attribute meetingApplication

For a given meeting object, this attribute specifies the application that can be used to enable Internet meeting services, for example, Microsoft NetMeeting or Microsoft Exchange 2000 Conferencing Server.

```
cn: meetingApplication
ldapDisplayName: meetingApplication
attributeId: 1.2.840.113556.1.4.573
```

```
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 11b6cc83-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.21 Attribute meetingBandwidth

For a given meeting object, this attribute specifies the bandwidth available to conduct that meeting.

```
cn: meetingBandwidth
ldapDisplayName: meetingBandwidth
attributeId: 1.2.840.113556.1.4.589
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: FALSE
schemaIdGuid: 11b6cc92-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.22 Attribute meetingBlob

For a given meeting object, this attribute specifies general information about the meeting. The structure of the contents of this attribute is not constrained by Active Directory and is determined by the application that uses the binary large object (BLOB).

```
cn: meetingBlob
ldapDisplayName: meetingBlob
attributeId: 1.2.840.113556.1.4.590
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 11b6cc93-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.23 Attribute meetingContactInfo

For a given meeting object, this attribute specifies how meeting attendees can attend the meeting by using the contact information specified, for example, a phone number or URL.

```
cn: meetingContactInfo
ldapDisplayName: meetingContactInfo
attributeId: 1.2.840.113556.1.4.578
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
```

```
schemaIdGuid: 11b6cc87-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.24 Attribute meetingDescription

For a given meeting object, this attribute specifies a description of the meeting (for example, agenda and attendees).

```
cn: meetingDescription
ldapDisplayName: meetingDescription
attributeId: 1.2.840.113556.1.4.567
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 11b6cc7e-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.25 Attribute meetingEndTime

For a given meeting object, this attribute specifies the end date and time of a meeting.

```
cn: meetingEndTime
ldapDisplayName: meetingEndTime
attributeId: 1.2.840.113556.1.4.588
attributeSyntax: 2.5.5.11
omSyntax: 23
isSingleValued: FALSE
schemaIdGuid: 11b6cc91-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.26 Attribute meetingID

For a given meeting object, this attribute specifies a numerical ID for the meeting.

```
cn: meetingID
ldapDisplayName: meetingID
attributeId: 1.2.840.113556.1.4.565
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 11b6cc7c-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.27 Attribute meetingIP

For a given meeting object, this attribute specifies an IP address for the online meeting.

```
cn: meetingIP
ldapDisplayName: meetingIP
attributeId: 1.2.840.113556.1.4.580
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 11b6cc89-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.28 Attribute meetingIsEncrypted

For a given meeting object, this attribute specifies whether network traffic associated with the meeting is to be encrypted. A value of TRUE indicates that encryption is required.

```
cn: meetingIsEncrypted
ldapDisplayName: meetingIsEncrypted
attributeId: 1.2.840.113556.1.4.585
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 11b6cc8e-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.29 Attribute meetingKeyword

For a given meeting object, this attribute specifies a keyword that enables users to search for the meeting.

```
cn: meetingKeyword
ldapDisplayName: meetingKeyword
attributeId: 1.2.840.113556.1.4.568
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 11b6cc7f-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.30 Attribute meetingLanguage

For a given meeting object, this attribute specifies the language of the meeting.

```
cn: meetingLanguage
ldapDisplayName: meetingLanguage
attributeId: 1.2.840.113556.1.4.574
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 11b6cc84-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.31 Attribute meetingLocation

For a given meeting object, this attribute specifies the physical location of the meeting.

```
cn: meetingLocation
ldapDisplayName: meetingLocation
attributeId: 1.2.840.113556.1.4.569
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 11b6cc80-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.32 Attribute meetingMaxParticipants

For a given meeting object, this attribute specifies the maximum number of participants for the meeting.

```
cn: meetingMaxParticipants
ldapDisplayName: meetingMaxParticipants
attributeId: 1.2.840.113556.1.4.576
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 11b6cc85-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.33 Attribute meetingName

For a given meeting object, this attribute specifies the name of the meeting.

```
cn: meetingName
```

```
ldapDisplayName: meetingName
attributeId: 1.2.840.113556.1.4.566
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 11b6cc7d-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.34 Attribute meetingOriginator

For a given meeting object, this attribute specifies the name of the individual who scheduled the meeting.

```
cn: meetingOriginator
ldapDisplayName: meetingOriginator
attributeId: 1.2.840.113556.1.4.577
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 11b6cc86-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.35 Attribute meetingOwner

For a given meeting object, this attribute specifies the name of the individual who owns the meeting.

```
cn: meetingOwner
ldapDisplayName: meetingOwner
attributeId: 1.2.840.113556.1.4.579
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 11b6cc88-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.36 Attribute meetingProtocol

For a given meeting object, this attribute specifies the video conferencing protocol(s) to be used for the meeting, for example, H.320 or T.120.

```
cn: meetingProtocol
ldapDisplayName: meetingProtocol
attributeId: 1.2.840.113556.1.4.570
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
```

```
schemaIdGuid: 11b6cc81-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.37 Attribute meetingRating

For a given meeting object, this attribute specifies the Platform for Internet Content Selection (PICS) rating for the meeting.

```
cn: meetingRating
ldapDisplayName: meetingRating
attributeId: 1.2.840.113556.1.4.584
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 11b6cc8d-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.38 Attribute meetingRecurrence

For a given meeting object, this attribute specifies the recurrence parameters for the meeting, for example, "Every weekday, 6/1/2006–6/1/2007". The semantics of this attribute are not determined by Active Directory but by the application that uses the attribute.

```
cn: meetingRecurrence
ldapDisplayName: meetingRecurrence
attributeId: 1.2.840.113556.1.4.586
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 11b6cc8f-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.39 Attribute meetingScope

For a given meeting object, this attribute specifies the scope of the meeting (for example, global or local). The semantics of this attribute are not determined by Active Directory but by the application that uses the attribute.

```
cn: meetingScope
ldapDisplayName: meetingScope
attributeId: 1.2.840.113556.1.4.581
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 11b6cc8a-48c4-11d1-a9c3-0000f80367c1
```

```
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.40 Attribute meetingStartTime

For a given meeting object, this attribute specifies the start date and time of the meeting.

```
cn: meetingStartTime
ldapDisplayName: meetingStartTime
attributeId: 1.2.840.113556.1.4.587
attributeSyntax: 2.5.5.11
omSyntax: 23
isSingleValued: FALSE
schemaIdGuid: 11b6cc90-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.41 Attribute meetingType

For a given meeting object, this attribute specifies the type of the meeting. The semantics of this attribute are not determined by Active Directory but by the application that uses the attribute.

```
cn: meetingType
ldapDisplayName: meetingType
attributeId: 1.2.840.113556.1.4.571
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 11b6cc82-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.42 Attribute meetingURL

For a given meeting object, this attribute specifies the URL for the meeting.

```
cn: meetingURL
ldapDisplayName: meetingURL
attributeId: 1.2.840.113556.1.4.583
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 11b6cc8c-48c4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.43 Attribute member

For a given group object, this attribute specifies the list of objects that belong to the group, except for user accounts whose primaryGroupID specifies the given group object. Those user accounts are members of the group, although they are not reflected in this attribute. For more information, refer to primaryGroupID [MS-ADA3] section 2.120.

```
cn: Member
ldapDisplayName: member
attributeId: 2.5.4.31
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: bf9679c0-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: bc0ac240-79a9-11d0-9020-00c04fc2d4cf
linkID: 2
mapiID: 32777
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.44 Attribute memberNisNetgroup

For a given group object, this attribute specifies the list of netgroups that are members of this netgroup.

```
cn: MemberNisNetgroup
ldapDisplayName: memberNisNetgroup
attributeId: 1.3.6.1.1.1.1.13
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: 0f6a17dc-53e5-4be8-9442-8f3ce2f9012a
systemOnly: FALSE
searchFlags: 0
rangeUpper: 153600
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.45 (Updated Section) Attribute memberOf

For a given user or group object, this attribute specifies the distinguished names of the groups to which this object belongs, except for a user object's primary group. The user object's primary group is specified by the primaryGroupID attribute. The user is a member of the group specified by the primaryGroupID attribute, although this is not reflected in the memberOf attribute. For more information, refer to ███████████ [MS-ADA3] section 2.120.

```
cn: Is-Member-Of-DL
ldapDisplayName: memberOf
attributeId: 1.2.840.113556.1.2.102
attributeSyntax: 2.5.5.1
```

```
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: bf967991-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: fCOPY
attributeSecurityGuid: bc0ac240-79a9-11d0-9020-00c04fc2d4cf
linkID: 3
mapiID: 32776
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.46 Attribute memberUid

For a given group object, this attribute specifies the logon names of the members of the group.

```
cn: MemberUid
ldapDisplayName: memberUid
attributeId: 1.3.6.1.1.1.1.12
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: 03dab236-672e-4f61-ab64-f77d2dc2ffab
systemOnly: FALSE
searchFlags: 0
rangeUpper: 256000
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.47 (Updated Section) Attribute mhsORAddress

For a given user or contact object, this attribute specifies the X.400 ([X400]) address X.400 of the individual represented by that object.

```
cn: MHS-OR-Address
ldapDisplayName: mhsORAddress
attributeId: 1.2.840.113556.1.4.650
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 0296c122-40da-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.48 Attribute middleName

For a given user or contact object, this attribute specifies the middle name of the individual represented by that object.

```
cn: Other-Name
ldapDisplayName: middleName
```

```
attributeId: 2.16.840.1.113730.3.1.34
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf9679f2-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 64
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.49 Attribute minPwdAge

For a given security principle, this attribute specifies the minimum amount of time that a password can be used. It is stored as a negative FILETIME, which represents a period of time expressed in a negative number of 100-nanosecond time slices. For example, a period of 20 minutes is represented as:

-12000000000

```
cn: Min-Pwd-Age
ldapDisplayName: minPwdAge
attributeId: 1.2.840.113556.1.4.78
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: bf9679c2-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: c7407360-20bf-11d0-a768-00aa006e0529
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.50 Attribute minPwdLength

For a given security principle, this attribute specifies the minimum number of characters that a password has to contain.

```
cn: Min-Pwd-Length
ldapDisplayName: minPwdLength
attributeId: 1.2.840.113556.1.4.79
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf9679c3-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: c7407360-20bf-11d0-a768-00aa006e0529
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.51 Attribute minTicketAge

For a given security principle, this attribute specifies the minimum time period (in hours) that a user's TGT can be used for Kerberos authentication before a request can be made to renew the ticket.

```
cn: Min-Ticket-Age
ldapDisplayName: minTicketAge
attributeId: 1.2.840.113556.1.4.80
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: bf9679c4-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.52 Attribute mobile

For a given user or contact object, this attribute specifies the primary mobile phone number of the individual represented by that object.

```
cn: Phone-Mobile-Primary
ldapDisplayName: mobile
attributeId: 0.9.2342.19200300.100.1.41
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: f0f8ffa3-1191-11d0-a060-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 14876
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.53 Attribute modifiedCount

This attribute specifies the NetLogon change log serial number, as specified in [MS-SAMR] section 2.2.3.1.

```
cn: Modified-Count
ldapDisplayName: modifiedCount
attributeId: 1.2.840.113556.1.4.168
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: bf9679c5-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: b8119fd0-04f6-4762-ab7a-4986c76b3f9a
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

```
    schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

In Windows 2000 Server, attribute attributeSecurityGuid is not defined.

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

2.54 Attribute modifiedCountAtLastProm

This attribute specifies the NetLogon change log serial number at the last update, as specified in [MS-SAMR] section 2.2.3.1.

```
    cn: Modified-Count-At-Last-Prom
    ldapDisplayName: modifiedCountAtLastProm
    attributeId: 1.2.840.113556.1.4.81
    attributeSyntax: 2.5.5.16
    omSyntax: 65
    isSingleValued: TRUE
    schemaIdGuid: bf9679c6-0de6-11d0-a285-00aa003049e2
    systemOnly: FALSE
    searchFlags: 0
    systemFlags: FLAG_SCHEMA_BASE_OBJECT
    schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.55 Attribute modifyTimeStamp

For a given object, this attribute specifies the date when that object was last changed.

```
    cn: Modify-Time-Stamp
    ldapDisplayName: modifyTimeStamp
    attributeId: 2.5.18.2
    attributeSyntax: 2.5.5.11
    omSyntax: 24
    isSingleValued: TRUE
    schemaIdGuid: 9a7ad94a-ca53-11d1-bbd0-0080c76670c0
    systemOnly: TRUE
    searchFlags: 0
    systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED |
     FLAG_DOMAIN_DISALLOW_RENAME
    schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.56 Attribute moniker

For a given Component Object Model (COM) object, this attribute specifies the name or path location for that COM object.

```
    cn: Moniker
    ldapDisplayName: moniker
    attributeId: 1.2.840.113556.1.4.82
```

```
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: bf9679c7-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.57 Attribute monikerDisplayName

For a given COM object, this attribute specifies the display name of that COM object.

```
cn: Moniker-Display-Name
ldapDisplayName: monikerDisplayName
attributeId: 1.2.840.113556.1.4.83
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: bf9679c8-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.58 Attribute moveTreeState

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

```
cn: Move-Tree-State
ldapDisplayName: moveTreeState
attributeId: 1.2.840.113556.1.4.1305
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 1f2ac2c8-3b71-11d2-90cc-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.59 Attribute mS-DS-ConsistencyChildCount

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

```
cn: MS-DS-Consistency-Child-Count
ldapDisplayName: mS-DS-ConsistencyChildCount
attributeId: 1.2.840.113556.1.4.1361
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 178b7bc2-b63a-11d2-90e1-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
```

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.60 Attribute mS-DS-ConsistencyGuid

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

```
cn: MS-DS-Consistency-Guid
ldapDisplayName: mS-DS-ConsistencyGuid
attributeId: 1.2.840.113556.1.4.1360
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 23773dc2-b63a-11d2-90e1-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.61 Attribute mS-DS-CreatorSID

For a given object, this attribute specifies the security identifier (SID), as defined in [MS-DTYP] section 2.4.2, of the account that created the object.

```
cn: MS-DS-Creator-SID
ldapDisplayName: mS-DS-CreatorSID
attributeId: 1.2.840.113556.1.4.1410
attributeSyntax: 2.5.5.17
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: c5e60132-1480-11d3-91c1-0000f87a57d4
systemOnly: TRUE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.62 Attribute ms-DS-MachineAccountQuota

For a given security principle, this attribute specifies, the quota of machine accounts that can be allocated, as specified in [MS-ADTS] section 6.1.1.4.

```
cn: MS-DS-Machine-Account-Quota
ldapDisplayName: ms-DS-MachineAccountQuota
attributeId: 1.2.840.113556.1.4.1411
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: d064fb68-1480-11d3-91c1-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

```
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.63 Attribute mS-DS-ReplicatesNCReason

This attribute specifies the ntdsConnection object that indicates the connection as used by the Knowledge Consistency Checker (KCC) in the replication topology, as specified in [MS-ADTS] section 6.1.1.2.2.1.2.1.2.

```
cn: MS-DS-Replicates-NC-Reason
ldapDisplayName: mS-DS-ReplicatesNCReason
attributeId: 1.2.840.113556.1.4.1408
attributeSyntax: 2.5.5.7
omSyntax: 127
omObjectClass: 1.2.840.113556.1.1.1.11
isSingleValued: FALSE
schemaIdGuid: 0ea12b84-08b3-11d3-91bc-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.64 Attribute ms-LAPS-Password

This attribute is used by the Local Administrator Password Solution (LAPS) feature.

```
cn: msLAPS-Password
ldapDisplayName: msLAPS-Password
attributeId: 1.2.840.113556.1.6.44.1.2
attributeSyntax: 2.5.5.5
omSyntax: 19
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE| fCONFIDENTIAL | fNEVERVALUEAUDIT | fRODCFilteredAttribute
```

Version-specific behavior: This attribute is added to Active Directory Domain Services (AD DS) by an Administrator.

The format of the JSON string stored in this attribute is as follows:

{"n":"Administrator","t":"1d8161b41c41cde","p":"A6a3#7%eb!5"}

where the supported name-value pairs are specified in the table that follows:

Name	Value
"n"	Contains the name of the managed account
"t"	Contains the UTC password update time, represented as a 64-bit hexadecimal number
"p"	Contains the clear-text password

2.65 (Updated Section) Attribute ms-LAPS-PasswordExpirationTime

This attribute is used by the Local Administrator Password Solution (LAPS) feature.

This attribute contains the UTC password expiration time of the password stored in either the **ms-LAPS-Password** attribute (section 2.64), the **ms-LAPS-EncryptedPassword** attribute (section 2.66), or the **ms-LAPS-EncryptedDSRMPassword** attribute (section 2.68).

```
cn: ms-LAPS-PasswordExpirationTime
ldapDisplayName: msLAPS-PasswordExpirationTime
attributeId: 1.2.840.113556.1.6.44.1.1
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
```

Version-specific behavior: This attribute is added to Active Directory Domain Services (AD DS) by an Administrator.

2.66 Attribute ms-LAPS-EncryptedPassword

This attribute is used by the Local Administrator Password Solution (LAPS) feature.

This attribute contains an encrypted password.

```
cn: ms-LAPS-EncryptedPassword
ldapDisplayName: msLAPS-EncryptedPassword
attributeId: 1.2.840.113556.1.6.44.1.3
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE| fCONFIDENTIAL | fNEVERVALUEAUDIT | fRODCFilteredAttribute
```

Version-specific behavior: This attribute is added to AD DS by an Administrator.

The structure of the information contained in this attribute is represented as follows.

0	1	2	3	4	5	6	7	8	9	1 0	1	2	3	4	5	6	7	8	9	2 0	1	2	3	4	5	6	7	8	9	3 0	1
PasswordUpdateTimestamp																														
...																														
EncryptedPasswordSize																														
Reserved																														
EncryptedPassword (variable)																														
...																														

...
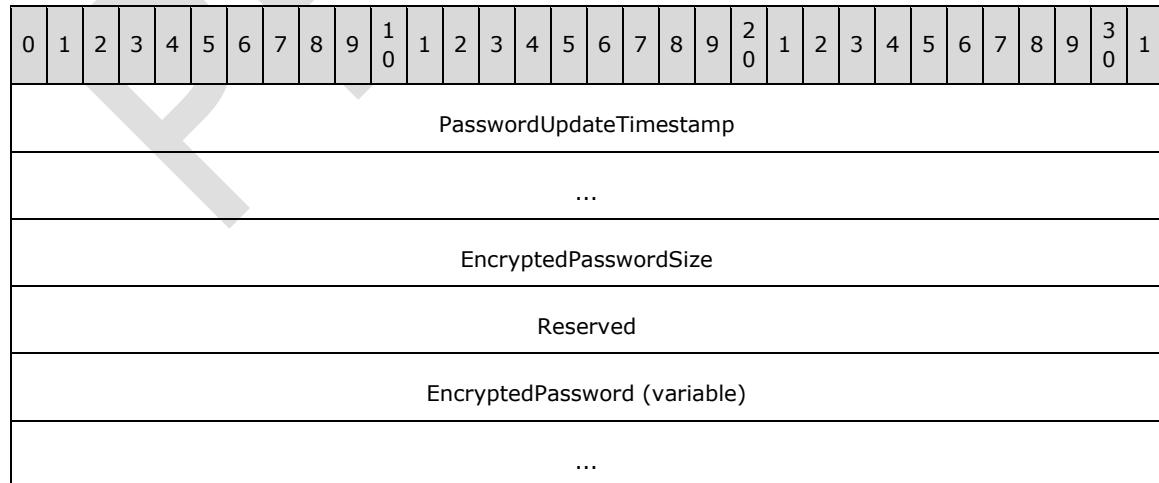
PasswordUpdateTimestamp (8 bytes): contains the UTC timestamp specifying when this password was stored**.**

EncryptedPasswordSize (4 bytes): specifies the size of the **EncryptedPassword** field in bytes.

Reserved (4 bytes): reserved for future use. This field MUST be set to zero.

EncryptedPassword (variable): variable-length data containing an encrypted buffer. The buffer is encrypted using a group key obtained via [MS-GKDI]. The decrypted data contains a JSON string that uses the format specified in **ms-LAPS-Password** (section 2.64).

2.67 Attribute ms-LAPS-EncryptedPasswordHistory

This attribute is used by the Local Administrator Password Solution (LAPS) feature.

This attribute contains one or more encrypted passwords.

```
cn: ms-LAPS-EncryptedPassword
ldapDisplayName: msLAPS-EncryptedPassword
attributeId: 1.2.840.113556.1.6.44.1.4
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE| fCONFIDENTIAL | fNEVERVALUEAUDIT | fRODCFilteredAttribute
```

Version-specific behavior: This attribute is added to AD DS by an Administrator.

Each value in this attribute MUST use the same format as specified for the **ms-LAPS-EncryptedPassword** attribute (section 2.66).

2.68 Attribute ms-LAPS-EncryptedDSRMPassword

This attribute is used by the Local Administrator Password Solution feature.

This attribute contains an encrypted password.

```
cn: ms-LAPS-EncryptedPassword
ldapDisplayName: msLAPS-EncryptedPassword
attributeId: 1.2.840.113556.1.6.44.1.5
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE| fCONFIDENTIAL | fNEVERVALUEAUDIT | fRODCFilteredAttribute
```

Version-specific behavior: This attribute is added to AD DS by an Administrator.

The value stored in this attribute MUST use the same format as specified for the **ms-LAPS-EncryptedPassword** attribute (section 2.66).

2.69 Attribute ms-LAPS-EncryptedDSRMPasswordHistory

This attribute is used by the Local Administrator Password Solution (LAPS) feature.

This attribute contains one or more encrypted passwords.

```
cn: ms-LAPS-EncryptedPasswordHistory
ldapDisplayName: msLAPS-EncryptedPasswordHistory
attributeId: 1.2.840.113556.1.6.44.1.6
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE| fCONFIDENTIAL | fNEVERVALUEAUDIT | fRODCFilteredAttribute
```

Version-specific behavior: This attribute is added to AD DS by an Administrator.

Each value in this attribute MUST use the same format as specified for the **ms-LAPS-EncryptedPassword** attribute (section 2.66).

2.70 Attribute ms-Mcs-AdmPwd

This attribute is used by the Local Administrator Password Solution (LAPS) feature.

This attribute contains a cleartext password.

```
cn: ms-Mcs-AdmPwd
ldapDisplayName: ms-Mcs-AdmPwd
attributeId: 1.2.840.113556.1.8000.2554.50051.45980.28112.18903.35903.6685103.1224907.2.1
attributeSyntax: 2.5.5.7
omSyntax: 19
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE| fCONFIDENTIAL | fNEVERVALUEAUDIT | fRODCFilteredAttribute
```

Version-specific behavior: This attribute is added to AD DS by an Administrator.

2.71 Attribute ms-Mcs-AdmPwdExpirationTime

This attribute is used by the Local Administrator Password Solution (LAPS) feature.

This attribute contains the UTC password expiration time of the password stored in the **ms-Mcs-AdmPwd** attribute (section 2.70).

```
cn: ms-Mcs-AdmPwdExpirationTime
ldapDisplayName: ms-Mcs-AdmPwdExpirationTime
attributeId: 1.2.840.113556.1.8000.2554.50051.45980.28112.18903.35903.6685103.1224907.2.2
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
```

Version-specific behavior: This attribute is added to AD DS by an Administrator.

2.72 Attribute ms-net-ieee-80211-GP-PolicyData

This attribute contains all the settings and data that comprise a group policy configuration for 802.11 wireless networks.

```
cn: ms-net-ieee-80211-GP-PolicyData
```

```
ldapDisplayName: ms-net-ieee-80211-GP-PolicyData
attributeId: 1.2.840.113556.1.4.1952
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 9c1495a5-4d76-468e-991e-1433b0a67855
systemOnly: FALSE
searchFlags: 0
rangeUpper: 4194304
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.73 Attribute ms-net-ieee-80211-GP-PolicyGUID

This attribute contains a GUID that identifies a specific 802.11 group policy object on the domain. GUID is defined in [MS-DTYP] section 2.3.4.

```
cn: ms-net-ieee-80211-GP-PolicyGUID
ldapDisplayName: ms-net-ieee-80211-GP-PolicyGUID
attributeId: 1.2.840.113556.1.4.1951
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 35697062-1eaf-448b-ac1e-388e0be4fdee
systemOnly: FALSE
searchFlags: 0
rangeUpper: 64
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.74 Attribute ms-net-ieee-80211-GP-PolicyReserved

This attribute is reserved for future use.

```
cn: ms-net-ieee-80211-GP-PolicyReserved
ldapDisplayName: ms-net-ieee-80211-GP-PolicyReserved
attributeId: 1.2.840.113556.1.4.1953
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 0f69c62e-088e-4ff5-a53a-e923cec07c0a
systemOnly: FALSE
searchFlags: 0
rangeUpper: 4194304
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.75 Attribute ms-net-ieee-8023-GP-PolicyData

This attribute contains all the settings and data that comprise a group policy configuration for 802.3 wired networks.

```
cn: ms-net-ieee-8023-GP-PolicyData
ldapDisplayName: ms-net-ieee-8023-GP-PolicyData
attributeId: 1.2.840.113556.1.4.1955
attributeSyntax: 2.5.5.12
```

```
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 8398948b-7457-4d91-bd4d-8d7ed669c9f7
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1048576
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.76 Attribute ms-net-ieee-8023-GP-PolicyGUID

This attribute contains a GUID that identifies a specific 802.3 group policy object on the domain.

```
cn: ms-net-ieee-8023-GP-PolicyGUID
ldapDisplayName: ms-net-ieee-8023-GP-PolicyGUID
attributeId: 1.2.840.113556.1.4.1954
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 94a7b05a-b8b2-4f59-9c25-39e69baa1684
systemOnly: FALSE
searchFlags: 0
rangeUpper: 64
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.77 Attribute ms-net-ieee-8023-GP-PolicyReserved

This attribute is reserved for future use.

```
cn: ms-net-ieee-8023-GP-PolicyReserved
ldapDisplayName: ms-net-ieee-8023-GP-PolicyReserved
attributeId: 1.2.840.113556.1.4.1956
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: d3c527c7-2606-4deb-8cfd-18426feec8ce
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1048576
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.78 Attribute mS-SQL-Alias

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

```
cn: MS-SQL-Alias
ldapDisplayName: mS-SQL-Alias
attributeId: 1.2.840.113556.1.4.1395
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: e0c6baae-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
```

```
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.79 Attribute mS-SQL-AllowAnonymousSubscription

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

```
cn: MS-SQL-AllowAnonymousSubscription
ldapDisplayName: mS-SQL-AllowAnonymousSubscription
attributeId: 1.2.840.113556.1.4.1394
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: db77be4a-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.80 Attribute mS-SQL-AllowImmediateUpdatingSubscription

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

```
cn: MS-SQL-AllowImmediateUpdatingSubscription
ldapDisplayName: mS-SQL-AllowImmediateUpdatingSubscription
attributeId: 1.2.840.113556.1.4.1404
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: c4186b6e-d34b-11d2-999a-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.81 Attribute mS-SQL-AllowKnownPullSubscription

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

```
cn: MS-SQL-AllowKnownPullSubscription
ldapDisplayName: mS-SQL-AllowKnownPullSubscription
attributeId: 1.2.840.113556.1.4.1403
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: c3bb7054-d34b-11d2-999a-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.82 Attribute mS-SQL-AllowQueuedUpdatingSubscription

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

```
cn: MS-SQL-AllowQueuedUpdatingSubscription
ldapDisplayName: mS-SQL-AllowQueuedUpdatingSubscription
attributeId: 1.2.840.113556.1.4.1405
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: c458ca80-d34b-11d2-999a-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.83 Attribute mS-SQL-AllowSnapshotFilesFTPDownloading

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

```
cn: MS-SQL-AllowSnapshotFilesFTPDownloading
ldapDisplayName: mS-SQL-AllowSnapshotFilesFTPDownloading
attributeId: 1.2.840.113556.1.4.1406
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: c49b8be8-d34b-11d2-999a-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.84 Attribute mS-SQL-AppleTalk

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

```
cn: MS-SQL-AppleTalk
ldapDisplayName: mS-SQL-AppleTalk
attributeId: 1.2.840.113556.1.4.1378
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 8fda89f4-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.85 Attribute mS-SQL-Applications

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

```
cn: MS-SQL-Applications
ldapDisplayName: mS-SQL-Applications
attributeId: 1.2.840.113556.1.4.1400
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: fbcda2ea-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.86 Attribute mS-SQL-Build

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

```
cn: MS-SQL-Build
ldapDisplayName: mS-SQL-Build
attributeId: 1.2.840.113556.1.4.1368
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 603e94c4-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.87 Attribute mS-SQL-CharacterSet

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

```
cn: MS-SQL-CharacterSet
ldapDisplayName: mS-SQL-CharacterSet
attributeId: 1.2.840.113556.1.4.1370
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 696177a6-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.88 Attribute mS-SQL-Clustered

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

```
cn: MS-SQL-Clustered
ldapDisplayName: mS-SQL-Clustered
attributeId: 1.2.840.113556.1.4.1373
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 7778bd90-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.89 Attribute mS-SQL-ConnectionURL

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

```
cn: MS-SQL-ConnectionURL
ldapDisplayName: mS-SQL-ConnectionURL
attributeId: 1.2.840.113556.1.4.1383
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: a92d23da-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.90 Attribute mS-SQL-Contact

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

```
cn: MS-SQL-Contact
ldapDisplayName: mS-SQL-Contact
attributeId: 1.2.840.113556.1.4.1365
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 4f6cbdd8-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.91 Attribute mS-SQL-CreationDate

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

```
cn: MS-SQL-CreationDate
ldapDisplayName: mS-SQL-CreationDate
attributeId: 1.2.840.113556.1.4.1397
attributeSyntax: 2.5.5.12
```

```
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: ede14754-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.92 Attribute mS-SQL-Database

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

```
cn: MS-SQL-Database
ldapDisplayName: mS-SQL-Database
attributeId: 1.2.840.113556.1.4.1393
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: d5a0dbdc-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.93 Attribute mS-SQL-Description

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

```
cn: MS-SQL-Description
ldapDisplayName: mS-SQL-Description
attributeId: 1.2.840.113556.1.4.1390
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 8386603c-ccef-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.94 Attribute mS-SQL-GPSHeight

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

```
cn: MS-SQL-GPSHeight
ldapDisplayName: mS-SQL-GPSHeight
attributeId: 1.2.840.113556.1.4.1387
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bcdd4f0e-ccee-11d2-9993-0000f87a57d4
```

```
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.95 Attribute mS-SQL-GPSLatitude

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

```
cn: MS-SQL-GPSLatitude
ldapDisplayName: mS-SQL-GPSLatitude
attributeId: 1.2.840.113556.1.4.1385
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: b222ba0e-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.96 Attribute mS-SQL-GPSLongitude

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

```
cn: MS-SQL-GPSLongitude
ldapDisplayName: mS-SQL-GPSLongitude
attributeId: 1.2.840.113556.1.4.1386
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: b7577c94-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.97 Attribute mS-SQL-InformationDirectory

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

```
cn: MS-SQL-InformationDirectory
ldapDisplayName: mS-SQL-InformationDirectory
attributeId: 1.2.840.113556.1.4.1392
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: d0aedb2e-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.98 Attribute mS-SQL-InformationURL

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

```
cn: MS-SQL-InformationURL
ldapDisplayName: mS-SQL-InformationURL
attributeId: 1.2.840.113556.1.4.1382
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: a42cd510-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.99 Attribute mS-SQL-Keywords

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

```
cn: MS-SQL-Keywords
ldapDisplayName: mS-SQL-Keywords
attributeId: 1.2.840.113556.1.4.1401
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 01e9a98a-ccef-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.100 Attribute mS-SQL-Language

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

```
cn: MS-SQL-Language
ldapDisplayName: mS-SQL-Language
attributeId: 1.2.840.113556.1.4.1389
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: c57f72f4-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.101 Attribute mS-SQL-LastBackupDate

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

```
cn: MS-SQL-LastBackupDate
ldapDisplayName: mS-SQL-LastBackupDate
attributeId: 1.2.840.113556.1.4.1398
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: f2b6abca-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.102 Attribute mS-SQL-LastDiagnosticDate

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

```
cn: MS-SQL-LastDiagnosticDate
ldapDisplayName: mS-SQL-LastDiagnosticDate
attributeId: 1.2.840.113556.1.4.1399
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: f6d6dd88-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.103 Attribute mS-SQL-LastUpdatedDate

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

```
cn: MS-SQL-LastUpdatedDate
ldapDisplayName: mS-SQL-LastUpdatedDate
attributeId: 1.2.840.113556.1.4.1381
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 9fcc43d4-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.104 Attribute mS-SQL-Location

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

```
cn: MS-SQL-Location
ldapDisplayName: mS-SQL-Location
attributeId: 1.2.840.113556.1.4.1366
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 561c9644-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.105 Attribute mS-SQL-Memory

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

```
cn: MS-SQL-Memory
ldapDisplayName: mS-SQL-Memory
attributeId: 1.2.840.113556.1.4.1367
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 5b5d448c-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.106 Attribute mS-SQL-MultiProtocol

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

```
cn: MS-SQL-MultiProtocol
ldapDisplayName: mS-SQL-MultiProtocol
attributeId: 1.2.840.113556.1.4.1375
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 8157fa38-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.107 Attribute mS-SQL-Name

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

```
cn: MS-SQL-Name
ldapDisplayName: mS-SQL-Name
attributeId: 1.2.840.113556.1.4.1363
attributeSyntax: 2.5.5.12
```

```
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 3532dfd8-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.108 Attribute mS-SQL-NamedPipe

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

```
cn: MS-SQL-NamedPipe
ldapDisplayName: mS-SQL-NamedPipe
attributeId: 1.2.840.113556.1.4.1374
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 7b91c840-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.109 Attribute mS-SQL-PublicationURL

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

```
cn: MS-SQL-PublicationURL
ldapDisplayName: mS-SQL-PublicationURL
attributeId: 1.2.840.113556.1.4.1384
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: ae0c11b8-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.110 Attribute mS-SQL-Publisher

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

```
cn: MS-SQL-Publisher
ldapDisplayName: mS-SQL-Publisher
attributeId: 1.2.840.113556.1.4.1402
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: c1676858-d34b-11d2-999a-0000f87a57d4
```

```
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.111 Attribute mS-SQL-RegisteredOwner

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

```
cn: MS-SQL-RegisteredOwner
ldapDisplayName: mS-SQL-RegisteredOwner
attributeId: 1.2.840.113556.1.4.1364
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 48fd44ea-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.112 Attribute mS-SQL-ServiceAccount

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

```
cn: MS-SQL-ServiceAccount
ldapDisplayName: mS-SQL-ServiceAccount
attributeId: 1.2.840.113556.1.4.1369
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 64933a3e-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.113 Attribute mS-SQL-Size

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

```
cn: MS-SQL-Size
ldapDisplayName: mS-SQL-Size
attributeId: 1.2.840.113556.1.4.1396
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: e9098084-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.114 Attribute mS-SQL-SortOrder

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

```
cn: MS-SQL-SortOrder
ldapDisplayName: mS-SQL-SortOrder
attributeId: 1.2.840.113556.1.4.1371
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 6ddc42c0-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.115 Attribute mS-SQL-SPX

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

```
cn: MS-SQL-SPX
ldapDisplayName: mS-SQL-SPX
attributeId: 1.2.840.113556.1.4.1376
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 86b08004-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.116 Attribute mS-SQL-Status

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

```
cn: MS-SQL-Status
ldapDisplayName: mS-SQL-Status
attributeId: 1.2.840.113556.1.4.1380
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 9a7d4770-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.117 Attribute mS-SQL-TCPIP

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

```
cn: MS-SQL-TCPIP
ldapDisplayName: mS-SQL-TCPIP
attributeId: 1.2.840.113556.1.4.1377
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 8ac263a6-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.118 Attribute mS-SQL-ThirdParty

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

```
cn: MS-SQL-ThirdParty
ldapDisplayName: mS-SQL-ThirdParty
attributeId: 1.2.840.113556.1.4.1407
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: c4e311fc-d34b-11d2-999a-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.119 Attribute mS-SQL-Type

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

```
cn: MS-SQL-Type
ldapDisplayName: mS-SQL-Type
attributeId: 1.2.840.113556.1.4.1391
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: ca48eba8-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.120 Attribute mS-SQL-UnicodeSortOrder

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

```
cn: MS-SQL-UnicodeSortOrder
ldapDisplayName: mS-SQL-UnicodeSortOrder
attributeId: 1.2.840.113556.1.4.1372
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 72dc918a-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.121 Attribute mS-SQL-Version

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

```
cn: MS-SQL-Version
ldapDisplayName: mS-SQL-Version
attributeId: 1.2.840.113556.1.4.1388
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: c07cc1d0-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.122 Attribute mS-SQL-Vines

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

```
cn: MS-SQL-Vines
ldapDisplayName: mS-SQL-Vines
attributeId: 1.2.840.113556.1.4.1379
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 94c56394-ccee-11d2-9993-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.123 Attribute msAuthz-CentralAccessPolicyID

For a Central Access Policy, this attribute defines a GUID that can be used to identify the set of policies when applied to a resource.

```
cn: ms-Authz-Central-Access-Policy-ID
ldapDisplayName: msAuthz-CentralAccessPolicyID
attributeId: 1.2.840.113556.1.4.2154
```

```
attributeSyntax: 2.5.5.17
omSyntax: 4
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
schemaIdGuid: 62f29b60-be74-4630-9456-2f6691993a86
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.124 Attribute msAuthz-EffectiveSecurityPolicy

For a central access rule, this attribute defines the permission that is applying to the target resources on the central access rule.

```
cn: ms-Authz-Effective-Security-Policy
ldapDisplayName: msAuthz-EffectiveSecurityPolicy
attributeId: 1.2.840.113556.1.4.2150
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
schemaIdGuid: 07831919-8f94-4fb6-8a42-91545dccdad3
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.125 Attribute msAuthz-LastEffectiveSecurityPolicy

For a central access policy entry (CAPE), this attribute defines the security policy that was last applied to the objects that the CAPE is applied to.

```
cn: ms-Authz-Last-Effective-Security-Policy
ldapDisplayName: msAuthz-LastEffectiveSecurityPolicy
attributeId: 1.2.840.113556.1.4.2152
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
schemaIdGuid: 8e1685c6-3e2f-48a2-a58d-5af0ea789fa0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.126 Attribute msAuthz-MemberRulesInCentralAccessPolicy

For a central access policy, this attribute identifies the central access rules that make up the policy.

```
cn: ms-Authz-Member-Rules-In-Central-Access-Policy
ldapDisplayName: msAuthz-MemberRulesInCentralAccessPolicy
attributeId: 1.2.840.113556.1.4.2155
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
```

```
schemaIdGuid: 57f22f7a-377e-42c3-9872-cec6f21d2e3e
linkID: 2184
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.127 Attribute msAuthz-MemberRulesInCentralAccessPolicyBL

This attribute is the back link for the msAuthz-MemberRulesInCentralAccessPolicy attribute. For a central access rule object, this attribute references one or more central access policies that point to it.

```
cn: ms-Authz-Member-Rules-In-Central-Access-Policy-BL
ldapDisplayName: msAuthz-MemberRulesInCentralAccessPolicyBL
attributeId: 1.2.840.113556.1.4.2156
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: 516e67cf-fedd-4494-bb3a-bc506a948891
linkID: 2185
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.128 Attribute msAuthz-ProposedSecurityPolicy

This attribute defines, for a central access policy entry (CAPE), the proposed security policy of the objects that the CAPE is applied to.

```
cn: ms-Authz-Proposed-Security-Policy
ldapDisplayName: msAuthz-ProposedSecurityPolicy
attributeId: 1.2.840.113556.1.4.2151
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
schemaIdGuid: b946bece-09b5-4b6a-b25a-4b63a330e80e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.129 Attribute msAuthz-ResourceCondition

For a central access rule, this attribute is an expression that identifies the scope of the target resource to which the policy applies.

```
cn: ms-Authz-Resource-Condition
ldapDisplayName: msAuthz-ResourceCondition
attributeId: 1.2.840.113556.1.4.2153
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
schemaIdGuid: 80997877-f874-4c68-864d-6e508a83bdbd
```

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.130 Attribute msCOM-DefaultPartitionLink

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

```
cn: ms-COM-DefaultPartitionLink
ldapDisplayName: msCOM-DefaultPartitionLink
attributeId: 1.2.840.113556.1.4.1427
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 998b10f7-aa1a-4364-b867-753d197fe670
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003 operating system.

2.131 Attribute msCOM-ObjectId

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

```
cn: ms-COM-ObjectId
ldapDisplayName: msCOM-ObjectId
attributeId: 1.2.840.113556.1.4.1428
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 430f678b-889f-41f2-9843-203b5a65572f
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.132 Attribute msCOM-PartitionLink

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

```
cn: ms-COM-PartitionLink
ldapDisplayName: msCOM-PartitionLink
attributeId: 1.2.840.113556.1.4.1423
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 09abac62-043f-4702-ac2b-6ca15eee5754
systemOnly: FALSE
searchFlags: 0
linkID: 1040
```

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.133 Attribute msCOM-PartitionSetLink

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

```
cn: ms-COM-PartitionSetLink
ldapDisplayName: msCOM-PartitionSetLink
attributeId: 1.2.840.113556.1.4.1424
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 67f121dc-7d02-4c7d-82f5-9ad4c950ac34
systemOnly: TRUE
searchFlags: 0
linkID: 1041
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.134 Attribute msCOM-UserLink

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

```
cn: ms-COM-UserLink
ldapDisplayName: msCOM-UserLink
attributeId: 1.2.840.113556.1.4.1425
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 9e6f3a4d-242c-4f37-b068-36b57f9fc852
systemOnly: TRUE
searchFlags: 0
linkID: 1049
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.135 Attribute msCOM-UserPartitionSetLink

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

```
cn: ms-COM-UserPartitionSetLink
ldapDisplayName: msCOM-UserPartitionSetLink
attributeId: 1.2.840.113556.1.4.1426
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 8e940c8a-e477-4367-b08d-ff2ff942dcd7
systemOnly: FALSE
```

```
searchFlags: 0
linkID: 1048
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.136 Attribute mscopeId

For a given computer object that is a Dynamic Host Configuration Protocol (DHCP) server, this attribute specifies that there is a multicast scope on the DHCP server represented by that object.

```
cn: Mscope-Id
ldapDisplayName: mscopeId
attributeId: 1.2.840.113556.1.4.716
attributeSyntax: 2.5.5.5
omSyntax: 19
isSingleValued: TRUE
schemaIdGuid: 963d2751-48be-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.137 Attribute msDFS-Commentv2

A comment associated with a Distributed File System (DFS) root or link.

```
cn: ms-DFS-Comment-v2
ldapDisplayName: msDFS-Commentv2
attributeId: 1.2.840.113556.1.4.2036
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: b786cec9-61fd-4523-b2c1-5ceb3860bb32
isMemberOfPartialAttributeSet: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 32766
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.138 Attribute msDFS-GenerationGUIDv2

This attribute is updated each time the entry that contains this attribute is modified.

```
cn: ms-DFS-Generation-GUID-v2
ldapDisplayName: msDFS-GenerationGUIDv2
attributeId: 1.2.840.113556.1.4.2032
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 35b8b3d9-c58f-43d6-930e-5040f2f1a781
isMemberOfPartialAttributeSet: FALSE
searchFlags: 0
rangeLower: 16
rangeUpper: 16
```

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.139 Attribute msDFS-LastModifiedv2

This attribute is updated on each write to the entry that contains the attribute.

```
cn: ms-DFS-Last-Modified-v2
ldapDisplayName: msDFS-LastModifiedv2
attributeId: 1.2.840.113556.1.4.2034
attributeSyntax: 2.5.5.11
omSyntax: 24
isSingleValued: TRUE
schemaIdGuid: 3c095e8a-314e-465b-83f5-ab8277bcf29b
isMemberOfPartialAttributeSet: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.140 Attribute msDFS-LinkIdentityGUIDv2

This attribute is set only when the link is created.

```
cn: ms-DFS-Link-Identity-GUID-v2
ldapDisplayName: msDFS-LinkIdentityGUIDv2
attributeId: 1.2.840.113556.1.4.2041
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: edb027f3-5726-4dee-8d4e-dbf07e1ad1f1
isMemberOfPartialAttributeSet: FALSE
searchFlags: 0
rangeLower: 16
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.141 Attribute msDFS-LinkPathv2

This attribute specifies the DFS link path relative to the DFS root target share.

```
cn: ms-DFS-Link-Path-v2
ldapDisplayName: msDFS-LinkPathv2
attributeId: 1.2.840.113556.1.4.2039
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 86b021f6-10ab-40a2-a252-1dc0cc3be6a9
isMemberOfPartialAttributeSet: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 32766
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.142 Attribute msDFS-LinkSecurityDescriptorv2

A security descriptor of the DFS link's reparse point on the file system.

```
cn: ms-DFS-Link-Security-Descriptor-v2
ldapDisplayName: msDFS-LinkSecurityDescriptorv2
attributeId: 1.2.840.113556.1.4.2040
attributeSyntax: 2.5.5.15
omSyntax: 66
isSingleValued: TRUE
schemaIdGuid: 57cf87f7-3426-4841-b322-02b3b6e9eba8
isMemberOfPartialAttributeSet: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.143 Attribute msDFS-NamespaceIdentityGUIDv2

A GUID to identify the DFS namespace.

```
cn: ms-DFS-Namespace-Identity-GUID-v2
ldapDisplayName: msDFS-NamespaceIdentityGUIDv2
attributeId: 1.2.840.113556.1.4.2033
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 200432ce-ec5f-4931-a525-d7f4afe34e68
isMemberOfPartialAttributeSet: FALSE
searchFlags: 0
rangeLower: 16
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.144 Attribute msDFS-Propertiesv2

Properties associated with DFS root/link.

```
cn: ms-DFS-Properties-v2
ldapDisplayName: msDFS-Propertiesv2
attributeId: 1.2.840.113556.1.4.2037
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 0c3e5bc5-eb0e-40f5-9b53-334e958dffdb
isMemberOfPartialAttributeSet: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 1024
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.145 Attribute msDFS-SchemaMajorVersion

Major version of the schema of DFS metadata.

```
cn: ms-DFS-Schema-Major-Version
ldapDisplayName: msDFS-SchemaMajorVersion
attributeId: 1.2.840.113556.1.4.2030
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ec6d7855-704a-4f61-9aa6-c49a7c1d54c7
isMemberOfPartialAttributeSet: FALSE
searchFlags: 0
rangeLower: 2
rangeUpper: 2
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.146 Attribute msDFS-SchemaMinorVersion

Minor version of the schema of DFS metadata.

```
cn: ms-DFS-Schema-Minor-Version
ldapDisplayName: msDFS-SchemaMinorVersion
attributeId: 1.2.840.113556.1.4.2031
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: fef9a725-e8f1-43ab-bd86-6a0115ce9e38
isMemberOfPartialAttributeSet: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.147 Attribute msDFS-ShortNameLinkPathv2

The short name DFS link path relative to the DFS root target share.

```
cn: ms-DFS-Short-Name-Link-Path-v2
ldapDisplayName: msDFS-ShortNameLinkPathv2
attributeId: 1.2.840.113556.1.4.2042
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 2d7826f0-4cf7-42e9-a039-1110e0d9ca99
isMemberOfPartialAttributeSet: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 32766
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.148 Attribute msDFS-TargetListv2

Targets corresponding to DFS root/link.

```
cn: ms-DFS-Target-List-v2
```

```
ldapDisplayName: msDFS-TargetListv2
attributeId: 1.2.840.113556.1.4.2038
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 6ab126c6-fa41-4b36-809e-7ca91610d48f
isMemberOfPartialAttributeSet: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 2097152
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.149 Attribute msDFS-Ttlv2

The Time to Live (TTL) associated with a DFS root or link. This attribute is used at DFS referral time.

```
cn: ms-DFS-Ttl-v2
ldapDisplayName: msDFS-Ttlv2
attributeId: 1.2.840.113556.1.4.2035
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ea944d31-864a-4349-ada5-062e2c614f5e
isMemberOfPartialAttributeSet: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.150 Attribute msDFSR-CachePolicy

This attribute is reserved for future use.

```
cn: ms-DFSR-CachePolicy
ldapDisplayName: msDFSR-CachePolicy
attributeId: 1.2.840.113556.1.6.13.3.29
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: db7a08e7-fc76-4569-a45f-f5ecb66a88b5
searchFlags: 0
```

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

2.151 Attribute msDFSR-CommonStagingPath

This attribute is reserved for future use.

```
cn: ms-DFSR-CommonStagingPath
ldapDisplayName: msDFSR-CommonStagingPath
attributeId: 1.2.840.113556.1.6.13.3.38
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 936eac41-d257-4bb9-bd55-f310a3cf09ad
searchFlags: 0
rangeLower: 0
```

```
rangeUpper: 32767
```

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

2.152 Attribute msDFSR-CommonStagingSizeInMb

This attribute is reserved for future use.

```
cn: ms-DFSR-CommonStagingSizeInMb
ldapDisplayName: msDFSR-CommonStagingSizeInMb
attributeId: 1.2.840.113556.1.6.13.3.39
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 135eb00e-4846-458b-8ea2-a37559afd405
searchFlags: 0
rangeLower: 0
rangeUpper: -1
```

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

2.153 Attribute msDFSR-ComputerReference

This attribute is used by the Distributed File System Replication Protocol and contains a forward-link to a computer object.

```
cn: ms-DFSR-ComputerReference
ldapDisplayName: msDFSR-ComputerReference
attributeId: 1.2.840.113556.1.6.13.3.101
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 6c7b5785-3d21-41bf-8a8a-627941544d5a
searchFlags: 0
linkID: 2050
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.154 Attribute msDFSR-ComputerReferenceBL

This attribute specifies a back link attribute and contains a value used to indicate a back reference from a computer by the Distributed File System Replication Protocol.

```
cn: ms-DFSR-ComputerReferenceBL
ldapDisplayName: msDFSR-ComputerReferenceBL
attributeId: 1.2.840.113556.1.6.13.3.103
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 5eb526d7-d71b-44ae-8cc6-95460052e6ac
searchFlags: 0
linkID: 2051
systemFlags: FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.155 Attribute msDFSR-ConflictPath

This attribute specifies the full path of the conflict directory used by the Distributed File System Replication Protocol.

```
cn: ms-DFSR-ConflictPath
ldapDisplayName: msDFSR-ConflictPath
attributeId: 1.2.840.113556.1.6.13.3.7
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 5cf0bcc8-60f7-4bff-bda6-aea0344eb151
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.156 Attribute msDFSR-ConflictSizeInMb

This attribute specifies a value used by the Distributed File System Replication Protocol to control the size of the ConflictAndDeleted directory.

```
cn: ms-DFSR-ConflictSizeInMb
ldapDisplayName: msDFSR-ConflictSizeInMb
attributeId: 1.2.840.113556.1.6.13.3.8
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 9ad33fc9-aacf-4299-bb3e-d1fc6ea88e49
searchFlags: 0
rangeLower: 0
rangeUpper: -1
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.157 Attribute msDFSR-ContentSetGuid

This attribute specifies the GUID of a content set in the Distributed File System Replication Protocol.

```
cn: ms-DFSR-ContentSetGuid
ldapDisplayName: msDFSR-ContentSetGuid
attributeId: 1.2.840.113556.1.6.13.3.18
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 1035a8e1-67a8-4c21-b7bb-031cdf99d7a0
searchFlags: 0
rangeLower: 16
rangeUpper: 16
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.158 Attribute msDFSR-DefaultCompressionExclusionFilter

This attribute specifies a filter string containing extensions of file types not to be compressed.

```
cn: ms-DFSR-DefaultCompressionExclusionFilter
ldapDisplayName: msDFSR-DefaultCompressionExclusionFilter
attributeId: 1.2.840.113556.1.6.13.3.34
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 87811bd5-cd8b-45cb-9f5d-980f3a9e0c97
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
```

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

2.159 Attribute msDFSR-DeletedPath

This attribute specifies the full path of the Deleted directory.

```
cn: ms-DFSR-DeletedPath
ldapDisplayName: msDFSR-DeletedPath
attributeId: 1.2.840.113556.1.6.13.3.26
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 817cf0b8-db95-4914-b833-5a079ef65764
searchFlags: 0
rangeUpper: 32767
```

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

2.160 Attribute msDFSR-DeletedSizeInMb

This attribute specifies the size (in megabytes) of the Deleted directory.

```
cn: ms-DFSR-DeletedSizeInMb
ldapDisplayName: msDFSR-DeletedSizeInMb
attributeId: 1.2.840.113556.1.6.13.3.27
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 53ed9ad1-9975-41f4-83f5-0c061a12553a
searchFlags: 0
rangeUpper: -1
```

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

2.161 Attribute msDFSR-DfsLinkTarget

This attribute specifies a value used by the Distributed File System Replication Protocol.

```
cn: ms-DFSR-DfsLinkTarget
ldapDisplayName: msDFSR-DfsLinkTarget
attributeId: 1.2.840.113556.1.6.13.3.24
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: f7b85ba9-3bf9-428f-aab4-2eee6d56f063
searchFlags: 0
rangeLower: 0
```

```
rangeUpper: 32767
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.162 Attribute msDFSR-DfsPath

This attribute specifies a value used by the Distributed File System Replication Protocol.

```
cn: ms-DFSR-DfsPath
ldapDisplayName: msDFSR-DfsPath
attributeId: 1.2.840.113556.1.6.13.3.21
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 2cc903e2-398c-443b-ac86-ff6b01eac7ba
searchFlags: fATTINDEX
rangeLower: 0
rangeUpper: 32767
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.163 Attribute msDFSR-DirectoryFilter

This attribute specifies a value used by the Distributed File System Replication Protocol for folder name filters.

```
cn: ms-DFSR-DirectoryFilter
ldapDisplayName: msDFSR-DirectoryFilter
attributeId: 1.2.840.113556.1.6.13.3.13
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 93c7b477-1f2e-4b40-b7bf-007e8d038ccf
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.164 Attribute msDFSR-DisablePacketPrivacy

This attribute is reserved for future use.

```
cn: ms-DFSR-DisablePacketPrivacy
ldapDisplayName: msDFSR-DisablePacketPrivacy
attributeId: 1.2.840.113556.1.6.13.3.32
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 6a84ede5-741e-43fd-9dd6-aa0f61578621
searchFlags: 0
```

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

2.165 Attribute msDFSR-Enabled

This attribute specifies a value used by the Distributed File System Replication Protocol to identify whether a replicated folder is enabled or disabled.

```
cn: ms-DFSR-Enabled
ldapDisplayName: msDFSR-Enabled
attributeId: 1.2.840.113556.1.6.13.3.9
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 03726ae7-8e7d-4446-8aae-a91657c00993
searchFlags: 0
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.166 Attribute msDFSR-Extension

This attribute is reserved for future use.

```
cn: ms-DFSR-Extension
ldapDisplayName: msDFSR-Extension
attributeId: 1.2.840.113556.1.6.13.3.2
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 78f011ec-a766-4b19-adcf-7b81ed781a4d
searchFlags: 0
rangeLower: 0
rangeUpper: 65536
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.167 Attribute msDFSR-FileFilter

This attribute specifies a value used by the Distributed File System Replication Protocol to control file replication.

```
cn: ms-DFSR-FileFilter
ldapDisplayName: msDFSR-FileFilter
attributeId: 1.2.840.113556.1.6.13.3.12
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: d68270ac-a5dc-4841-a6ac-cd68be38c181
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.168 Attribute msDFSR-Flags

This attribute specifies a value used by the Distributed File System Replication Protocol to reflect state.

```
cn: ms-DFSR-Flags
```

```
ldapDisplayName: msDFSR-Flags
attributeId: 1.2.840.113556.1.6.13.3.16
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: fe515695-3f61-45c8-9bfa-19c148c57b09
searchFlags: 0
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.169 Attribute msDFSR-Keywords

This attribute specifies a value used by the Distributed File System Replication Protocol.

```
cn: ms-DFSR-Keywords
ldapDisplayName: msDFSR-Keywords
attributeId: 1.2.840.113556.1.6.13.3.15
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 048b4692-6227-4b67-a074-c4437083e14b
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.170 Attribute msDFSR-MaxAgeInCacheInMin

This attribute is reserved for future use.

```
cn: ms-DFSR-MaxAgeInCacheInMin
ldapDisplayName: msDFSR-MaxAgeInCacheInMin
attributeId: 1.2.840.113556.1.6.13.3.31
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 2ab0e48d-ac4e-4afc-83e5-a34240db6198
searchFlags: 0
rangeUpper: 2147483647
```

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

2.171 Attribute msDFSR-MemberReference

This attribute specifies a value used by the Distributed File System Replication Protocol as a forward link to the msDFSR-Member object [MS-ADSC].

```
cn: ms-DFSR-MemberReference
ldapDisplayName: msDFSR-MemberReference
attributeId: 1.2.840.113556.1.6.13.3.100
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 261337aa-f1c3-44b2-bbea-c88d49e6f0c7
searchFlags: 0
linkID: 2052
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.172 Attribute msDFSR-MemberReferenceBL

This attribute is a back link attribute and contains a value used by the Distributed File System Replication Protocol.

```
cn: ms-DFSR-MemberReferenceBL
ldapDisplayName: msDFSR-MemberReferenceBL
attributeId: 1.2.840.113556.1.6.13.3.102
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: adde62c6-1880-41ed-bd3c-30b7d25e14f0
searchFlags: 0
linkID: 2053
systemFlags: FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.173 Attribute msDFSR-MinDurationCacheInMin

This attribute is reserved for future use.

```
cn: ms-DFSR-MinDurationCacheInMin
ldapDisplayName: msDFSR-MinDurationCacheInMin
attributeId: 1.2.840.113556.1.6.13.3.30
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 4c5d607a-ce49-444a-9862-82a95f5d1fcc
searchFlags: 0
rangeUpper: 2147483647
```

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

2.174 Attribute msDFSR-OnDemandExclusionDirectoryFilter

This attribute is reserved for future use.

```
cn: ms-DFSR-OnDemandExclusionDirectoryFilter
ldapDisplayName: msDFSR-OnDemandExclusionDirectoryFilter
attributeId: 1.2.840.113556.1.6.13.3.36
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 7d523aff-9012-49b2-9925-f922a0018656
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
```

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

2.175 Attribute msDFSR-OnDemandExclusionFileFilter

This attribute is reserved for future use.

```
cn: ms-DFSR-OnDemandExclusionFileFilter
ldapDisplayName: msDFSR-OnDemandExclusionFileFilter
attributeId: 1.2.840.113556.1.6.13.3.35
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: a68359dc-a581-4ee6-9015-5382c60f0fb4
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
```

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

2.176 Attribute msDFSR-Options

This attribute specifies a value used by the Distributed File System Replication Protocol to control optional behavior.

```
cn: ms-DFSR-Options
ldapDisplayName: msDFSR-Options
attributeId: 1.2.840.113556.1.6.13.3.17
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: d6d67084-c720-417d-8647-b696237a114c
searchFlags: 0
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.177 Attribute msDFSR-Options2

This attribute is reserved for future use.

```
cn: ms-DFSR-Options2
ldapDisplayName: msDFSR-Options2
attributeId: 1.2.840.113556.1.6.13.3.37
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 11e24318-4ca6-4f49-9afe-e5eb1afa3473
searchFlags: 0
```

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

2.178 Attribute msDFSR-Priority

This attribute is reserved for future use.

```
cn: ms-DFSR-Priority
ldapDisplayName: msDFSR-Priority
attributeId: 1.2.840.113556.1.6.13.3.25
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: eb20e7d6-32ad-42de-b141-16ad2631b01b
searchFlags: 0
```

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

2.179 Attribute msDFSR-RdcEnabled

This attribute specifies a value used by the Distributed File System Replication Protocol to control the use of Remote Differential Compression [MS-RDC].

```
cn: ms-DFSR-RdcEnabled
ldapDisplayName: msDFSR-RdcEnabled
attributeId: 1.2.840.113556.1.6.13.3.19
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: e3b44e05-f4a7-4078-a730-f48670a743f8
searchFlags: 0
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.180 Attribute msDFSR-RdcMinFileSizeInKb

This attribute specifies a value used by the Distributed File System Replication Protocol to control the minimum size of files that will then be chunked by Remote Differential Compression [MS-RDC].

```
cn: ms-DFSR-RdcMinFileSizeInKb
ldapDisplayName: msDFSR-RdcMinFileSizeInKb
attributeId: 1.2.840.113556.1.6.13.3.20
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: f402a330-ace5-4dc1-8cc9-74d900bf8ae0
searchFlags: 0
rangeLower: 0
rangeUpper: -1
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.181 Attribute msDFSR-ReadOnly

This attribute specifies whether the content is read-only or read-write.

```
cn: ms-DFSR-ReadOnly
ldapDisplayName: msDFSR-ReadOnly
attributeId: 1.2.840.113556.1.6.13.3.28
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 5ac48021-e447-46e7-9d23-92c0c6a90dfb
searchFlags: 0
```

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

2.182 Attribute msDFSR-ReplicationGroupGuid

This attribute specifies a value used by the Distributed File System Replication Protocol to store the replication group GUID.

```
cn: ms-DFSR-ReplicationGroupGuid
ldapDisplayName: msDFSR-ReplicationGroupGuid
attributeId: 1.2.840.113556.1.6.13.3.23
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 2dad8796-7619-4ff8-966e-0a5cc67b287f
searchFlags: fATTINDEX
rangeLower: 16
rangeUpper: 16
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.183 Attribute msDFSR-ReplicationGroupType

This attribute specifies a value used by the Distributed File System Replication Protocol to store the replication group type.

```
cn: ms-DFSR-ReplicationGroupType
ldapDisplayName: msDFSR-ReplicationGroupType
attributeId: 1.2.840.113556.1.6.13.3.10
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: eeed0fc8-1001-45ed-80cc-bbf744930720
searchFlags: 0
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.184 Attribute msDFSR-RootFence

This attribute specifies a value used by the Distributed File System Replication Protocol for the root directory fence value.

```
cn: ms-DFSR-RootFence
ldapDisplayName: msDFSR-RootFence
attributeId: 1.2.840.113556.1.6.13.3.22
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 51928e94-2cd8-4abe-b552-e50412444370
searchFlags: 0
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.185 Attribute msDFSR-RootPath

This attribute specifies a value used by the Distributed File System Replication Protocol for the replicated folder root directory.

```
cn: ms-DFSR-RootPath
ldapDisplayName: msDFSR-RootPath
attributeId: 1.2.840.113556.1.6.13.3.3
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: d7d5e8c1-e61f-464f-9fcf-20bbe0a2ec54
searchFlags: 0
```

```
rangeLower: 0
rangeUpper: 32767
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.186 Attribute msDFSR-RootSizeInMb

This attribute specifies a value used by the Distributed File System Replication Protocol.

```
cn: ms-DFSR-RootSizeInMb
ldapDisplayName: msDFSR-RootSizeInMb
attributeId: 1.2.840.113556.1.6.13.3.4
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 90b769ac-4413-43cf-ad7a-867142e740a3
searchFlags: 0
rangeLower: 0
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.187 Attribute msDFSR-Schedule

This attribute specifies a value used by the Distributed File System Replication Protocol for replication schedule.

```
cn: ms-DFSR-Schedule
ldapDisplayName: msDFSR-Schedule
attributeId: 1.2.840.113556.1.6.13.3.14
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 4699f15f-a71f-48e2-9ff5-5897c0759205
searchFlags: 0
rangeLower: 336
rangeUpper: 336
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.188 Attribute msDFSR-StagingCleanupTriggerInPercent

This attribute specifies the staging cleanup trigger in percentage of free disk space.

```
cn: ms-DFSR-StagingCleanupTriggerInPercent
ldapDisplayName: msDFSR-StagingCleanupTriggerInPercent
attributeId: 1.2.840.113556.1.6.13.3.40
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: d64b9c23-e1fa-467b-b317-6964d744d633
searchFlags: 0
```

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

2.189 Attribute msDFSR-StagingPath

This attribute specifies a value used by the Distributed File System Replication Protocol for the replicated folder staging directory.

```
cn: ms-DFSR-StagingPath
ldapDisplayName: msDFSR-StagingPath
attributeId: 1.2.840.113556.1.6.13.3.5
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 86b9a69e-f0a6-405d-99bb-77d977992c2a
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.190 Attribute msDFSR-StagingSizeInMb

This attribute specifies a value used by the Distributed File System Replication Protocol for the staging directory's cleanup quota size.

```
cn: ms-DFSR-StagingSizeInMb
ldapDisplayName: msDFSR-StagingSizeInMb
attributeId: 1.2.840.113556.1.6.13.3.6
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 250a8f20-f6fc-4559-ae65-e4b24c67aebe
searchFlags: 0
rangeLower: 0
rangeUpper: -1
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.191 Attribute msDFSR-TombstoneExpiryInMin

This attribute is reserved for future use.

```
cn: ms-DFSR-TombstoneExpiryInMin
ldapDisplayName: msDFSR-TombstoneExpiryInMin
attributeId: 1.2.840.113556.1.6.13.3.11
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 23e35d4c-e324-4861-a22f-e199140dae00
searchFlags: 0
rangeLower: 0
rangeUpper: 2147483647
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.192 Attribute msDFSR-Version

This attribute specifies a value used by the Distributed File System Replication Protocol.

```
cn: ms-DFSR-Version
ldapDisplayName: msDFSR-Version
attributeId: 1.2.840.113556.1.6.13.3.1
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 1a861408-38c3-49ea-ba75-85481a77c655
searchFlags: 0
rangeUpper: 256
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.193 Attribute msDNS-DNSKEYRecords

This attribute is written onto dnsZone objects. It is used to store DNS state in BLOB format.

```
cn: ms-DNS-DNSKEY-Records
ldapDisplayName: msDNS-DNSKEYRecords
attributeId: 1.2.840.113556.1.4.2145
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 28c458f5-602d-4ac9-a77c-b3f1be503a7e
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
rangeUpper: 10000
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.194 Attribute msDNS-DNSKEYRecordSetTTL

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-DNSKEY-Record-Set-TTL
ldapDisplayName: msDNS-DNSKEYRecordSetTTL
attributeId: 1.2.840.113556.1.4.2139
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 8f4e317f-28d7-442c-a6df-1f491f97b326
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
rangeLower: 0
rangeUpper: 2592000
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.195 Attribute msDNS-DSRecordAlgorithms

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-DS-Record-Algorithms
ldapDisplayName: msDNS-DSRecordAlgorithms
attributeId: 1.2.840.113556.1.4.2134
attributeSyntax: 2.5.5.9
omSyntax: 2
```

```
isSingleValued: TRUE
schemaIdGuid: 5c5b7ad2-20fa-44bb-beb3-34b9c0f65579
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.196 Attribute msDNS-DSRecordSetTTL

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-DS-Record-Set-TTL
ldapDisplayName: msDNS-DSRecordSetTTL
attributeId: 1.2.840.113556.1.4.2140
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 29869b7c-64c4-42fe-97d5-fbc2fa124160
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
rangeLower: 0
rangeUpper: 2592000
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.197 Attribute msDNS-IsSigned

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-Is-Signed
ldapDisplayName: msDNS-IsSigned
attributeId: 1.2.840.113556.1.4.2130
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: aa12854c-d8fc-4d5e-91ca-368b8d829bee
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.198 Attribute msDNS-KeymasterZones

This attribute is written onto msDNS-ServerSettings objects. It is used to store DNS state.

```
cn: ms-DNS-Keymaster-Zones
ldapDisplayName: msDNS-KeymasterZones
attributeId: 1.2.840.113556.1.4.2128
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 0be0dd3b-041a-418c-ace9-2f17d23e9d42
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.199 Attribute msDNS-MaintainTrustAnchor

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-Maintain-Trust-Anchor
ldapDisplayName: msDNS-MaintainTrustAnchor
attributeId: 1.2.840.113556.1.4.2133
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 0dc063c1-52d9-4456-9e15-9c2434aafd94
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.200 Attribute msDNS-NSEC3CurrentSalt

This attribute is written onto dnsZone objects. It is used to store DNS state.

```
cn: ms-DNS-NSEC3-Current-Salt
ldapDisplayName: msDNS-NSEC3CurrentSalt
attributeId: 1.2.840.113556.1.4.2149
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 387d9432-a6d1-4474-82cd-0a89aae084ae
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
rangeLower: 0
rangeUpper: 510
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.201 Attribute msDNS-NSEC3HashAlgorithm

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-NSEC3-Hash-Algorithm
ldapDisplayName: msDNS-NSEC3HashAlgorithm
attributeId: 1.2.840.113556.1.4.2136
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ff9e5552-7db7-4138-8888-05ce320a0323
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.202 Attribute msDNS-NSEC3Iterations

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-NSEC3-Iterations
ldapDisplayName: msDNS-NSEC3Iterations
attributeId: 1.2.840.113556.1.4.2138
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 80b70aab-8959-4ec0-8e93-126e76df3aca
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
rangeLower: 0
rangeUpper: 10000
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.203 Attribute msDNS-NSEC3OptOut

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-NSEC3-OptOut
ldapDisplayName: msDNS-NSEC3OptOut
attributeId: 1.2.840.113556.1.4.2132
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 7bea2088-8ce2-423c-b191-66ec506b1595
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.204 Attribute msDNS-NSEC3RandomSaltLength

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-NSEC3-Random-Salt-Length
ldapDisplayName: msDNS-NSEC3RandomSaltLength
attributeId: 1.2.840.113556.1.4.2137
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 13361665-916c-4de7-a59d-b1ebbd0de129
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
rangeLower: 0
rangeUpper: 255
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.205 Attribute msDNS-NSEC3UserSalt

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-NSEC3-User-Salt
ldapDisplayName: msDNS-NSEC3UserSalt
attributeId: 1.2.840.113556.1.4.2148
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: aff16770-9622-4fbc-a128-3088777605b9
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
rangeLower: 0
rangeUpper: 510
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.206 Attribute msDNS-ParentHasSecureDelegation

This attribute is written onto dnsZone objects. It is used to store DNS state.

```
cn: ms-DNS-Parent-Has-Secure-Delegation
ldapDisplayName: msDNS-ParentHasSecureDelegation
attributeId: 1.2.840.113556.1.4.2146
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 285c6964-c11a-499e-96d8-bf7c75a223c6
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.207 Attribute msDNS-PropagationTime

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-Propagation-Time
ldapDisplayName: msDNS-PropagationTime
attributeId: 1.2.840.113556.1.4.2147
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ba340d47-2181-4ca0-a2f6-fae4479dab2a
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.208 Attribute msDNS-RFC5011KeyRollovers

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-RFC5011-Key-Rollovers
ldapDisplayName: msDNS-RFC5011KeyRollovers
attributeId: 1.2.840.113556.1.4.2135
attributeSyntax: 2.5.5.8
omSyntax: 1
```

```
isSingleValued: TRUE
schemaIdGuid: 27d93c40-065a-43c0-bdd8-cdf2c7d120aa
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.209 Attribute msDNS-SecureDelegationPollingPeriod

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-Secure-Delegation-Polling-Period
ldapDisplayName: msDNS-SecureDelegationPollingPeriod
attributeId: 1.2.840.113556.1.4.2142
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: f6b0f0be-a8e4-4468-8fd9-c3c47b8722f9
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
rangeLower: 0
rangeUpper: 2592000
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.210 Attribute msDNS-SignatureInceptionOffset

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-Signature-Inception-Offset
ldapDisplayName: msDNS-SignatureInceptionOffset
attributeId: 1.2.840.113556.1.4.2141
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 03d4c32e-e217-4a61-9699-7bbc4729a026
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
rangeLower: 0
rangeUpper: 2592000
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.211 Attribute msDNS-SigningKeyDescriptors

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-Signing-Key-Descriptors
ldapDisplayName: msDNS-SigningKeyDescriptors
attributeId: 1.2.840.113556.1.4.2143
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 3443d8cd-e5b6-4f3b-b098-659a0214a079
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
```

```
rangeUpper: 10000
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.212 Attribute msDNS-SigningKeys

This attribute is written onto dnsZone objects. It is used to store DNS state.

```
cn: ms-DNS-Signing-Keys
ldapDisplayName: msDNS-SigningKeys
attributeId: 1.2.840.113556.1.4.2144
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: b7673e6d-cad9-4e9e-b31a-63e8098fdd63
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
rangeUpper: 10000
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.213 Attribute msDNS-SignWithNSEC3

This attribute is written onto dnsZone objects. It is used to store DNS configuration information.

```
cn: ms-DNS-Sign-With-NSEC3
ldapDisplayName: msDNS-SignWithNSEC3
attributeId: 1.2.840.113556.1.4.2131
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: c79f2199-6da1-46ff-923c-1f3f800c721e
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.214 Attribute msDRM-IdentityCertificate

For a given user object, this attribute specifies the XrML digital rights management (DRM) certificates for the individual represented by that object.

```
cn: MS-DRM-Identity-Certificate
ldapDisplayName: msDRM-IdentityCertificate
attributeId: 1.2.840.113556.1.4.1843
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: e85e1204-3434-41ad-9b56-e2901228fff0
searchFlags: 0
rangeLower: 1
rangeUpper: 10240
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.215 Attribute msDS-AdditionalDnsHostName

For a given computer object, this attribute specifies additional fully qualified domain names (FQDNs) (1) ([MS-ADTS] section 1.1) of that computer, as specified in [MS-ADTS] section 3.1.1.

```
cn: ms-DS-Additional-Dns-Host-Name
ldapDisplayName: msDS-AdditionalDnsHostName
attributeId: 1.2.840.113556.1.4.1717
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 80863791-dbe9-4eb8-837e-7f0ab55d9ac7
systemOnly: TRUE
searchFlags: 0
rangeLower: 0
rangeUpper: 2048
attributeSecurityGuid: 72e39547-7b18-11d1-adef-00c04fd8d5cd
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.216 Attribute msDS-AdditionalSamAccountName

For a given computer object, this attribute specifies the additional Security Accounts Manager (SAM) account names of that computer. For more information, see [MS-ADTS].

```
cn: ms-DS-Additional-Sam-Account-Name
ldapDisplayName: msDS-AdditionalSamAccountName
attributeId: 1.2.840.113556.1.4.1718
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 975571df-a4d5-429a-9f59-cdc6581d91e6
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE| fANR | fATTINDEX
rangeLower: 0
rangeUpper: 256
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.217 Attribute msDS-AllowedDNSSuffixes

For a given Active Directory domain, this attribute specifies the list of DNS suffixes (by their fully qualified domain name (FQDN) (1) ([MS-ADTS] section 1.1)) allowed to be used to identify computers that are members of that domain.

```
cn: ms-DS-Allowed-DNS-Suffixes
ldapDisplayName: msDS-AllowedDNSSuffixes
attributeId: 1.2.840.113556.1.4.1710
attributeSyntax: 2.5.5.12
```

```
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 8469441b-9ac4-4e45-8205-bd219dbf672d
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 2048
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.218 Attribute msDS-AllowedToActOnBehalfOfOtherIdentity

This attribute is used for access checks to determine if a requestor has permission to act on the behalf of other identities to services running as this account.

```
cn: ms-DS-Allowed-To-Act-On-Behalf-Of-Other-Identity
ldapDisplayName: msDS-AllowedToActOnBehalfOfOtherIdentity
attributeId: 1.2.840.113556.1.4.2182
attributeSyntax: 2.5.5.15
omSyntax: 66
isSingleValued: TRUE
systemOnly: TRUE
searchFlags: 0
rangeLower: 0
rangeUpper: 132096
schemaIdGuid: 3f78c3e5-f79a-46bd-a0b8-9d18116ddc79
attributeSecurityGuid: 4c164200-20c0-11d0-a768-00aa006e0529
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.219 Attribute msDS-AllowedToDelegateTo

For a given computer or user account, this attribute specifies the list of service principal names (SPN) corresponding to Windows services that can act on behalf of the computer or user account.

```
cn: ms-DS-Allowed-To-Delegate-To
ldapDisplayName: msDS-AllowedToDelegateTo
attributeId: 1.2.840.113556.1.4.1787
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 800d94d7-b7a1-42a1-b14d-7cae1423d07f
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.220 Attribute msDS-AllUsersTrustQuota

For a given Active Directory forest, this attribute specifies the maximum number of trusted domain objects (TDOs) allowed. For more information on the use of this attribute, see [MS-LSAD].

```
cn: MS-DS-All-Users-Trust-Quota
ldapDisplayName: msDS-AllUsersTrustQuota
attributeId: 1.2.840.113556.1.4.1789
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: d3aa4a5c-4e03-4810-97aa-2b339e7a434b
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.221 Attribute msDS-AppliesToResourceTypes

For a resource property, this attribute indicates what resource types this resource property applies to.

```
cn: ms-DS-Applies-To-Resource-Types
ldapDisplayName: msDS-AppliesToResourceTypes
attributeId: 1.2.840.113556.1.4.2195
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: 0
schemaIdGuid: 693f2006-5764-3d4a-8439-58f04aab4b59
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.222 Attribute msDS-Approx-Immed-Subordinates

For a given object in the directory, this attribute specifies the approximate number of direct descendants. For more information, see [MS-ADTS] section 3.1.1.4.5.15.

```
cn: ms-DS-Approx-Immed-Subordinates
ldapDisplayName: msDS-Approx-Immed-Subordinates
attributeId: 1.2.840.113556.1.4.1669
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: e185d243-f6ce-4adb-b496-b0c005d7823c
systemOnly: TRUE
searchFlags: 0
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.223 Attribute msDS-ApproximateLastLogonTimeStamp

This attribute specifies the approximate time a user last logged on from the device.

```
cn: ms-DS-Approximate-Last-Logon-Time-Stamp
ldapDisplayName: msDS-ApproximateLastLogonTimeStamp
attributeId: 1.2.840.113556.1.4.2262
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: a34f983b-84c6-4f0c-9050-a3a14a1d35a4
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
showInAdvancedViewOnly: TRUE
```

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

2.224 Attribute msDS-AssignedAuthNPolicy

This attribute specifies which AuthNPolicy is applied to this principal.

```
cn: ms-DS-Assigned-AuthN-Policy
ldapDisplayName: msDS-AssignedAuthNPolicy
attributeId: 1.2.840.113556.1.4.2295
attributeSyntax: 2.5.5.1
omObjectClass: 1.3.12.2.1011.28.0.714
omSyntax: 127
isSingleValued: TRUE
schemaIdGuid: b87a0ad8-54f7-49c1-84a0-e64d12853588
systemOnly: FALSE
searchFlags: 0
linkID: 2212
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.225 Attribute msDS-AssignedAuthNPolicyBL

This attribute is the backlink for msDS-AssignedAuthNPolicy.

```
cn: ms-DS-Assigned-AuthN-Policy-BL
ldapDisplayName: msDS-AssignedAuthNPolicyBL
attributeId: 1.2.840.113556.1.4.2296
attributeSyntax: 2.5.5.1
omObjectClass: 1.3.12.2.1011.28.0.714
omSyntax: 127
isSingleValued: FALSE
schemaIdGuid: 2d131b3c-d39f-4aee-815e-8db4bc1ce7ac
systemOnly: TRUE
searchFlags: 0
linkID: 2213
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.226 Attribute msDS-AssignedAuthNPolicySilo

This attribute specifies the AuthNPolicySilo that a principal is assigned to.

```
cn: ms-DS-Assigned-AuthN-Policy-Silo
ldapDisplayName: msDS-AssignedAuthNPolicySilo
attributeId: 1.2.840.113556.1.4.2285
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: b23fc141-0df5-4aea-b33d-6cf493077b3f
systemOnly: FALSE
searchFlags: 0
linkID: 2202
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.227 Attribute msDS-AssignedAuthNPolicySiloBL

This attribute is the backlink for msDS-AssignedAuthNPolicySilo.

```
cn: ms-DS-Assigned-AuthN-Policy-Silo-BL
ldapDisplayName: msDS-AssignedAuthNPolicySiloBL
attributeId: 1.2.840.113556.1.4.2286
attributeSyntax: 2.5.5.1
omObjectClass: 1.3.12.2.1011.28.0.714
omSyntax: 127
isSingleValued: FALSE
schemaIdGuid: 33140514-f57a-47d2-8ec4-04c4666600c7
systemOnly: TRUE
searchFlags: 0
linkID: 2203
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.228 Attribute msDS-AuthenticatedAtDC

This attribute specifies the forward link for ms-DS-AuthenticatedTo-Accountlist. For a user, it identifies which DC a user has authenticated to.

```
cn: ms-DS-AuthenticatedAt-DC
ldapDisplayName: msDS-AuthenticatedAtDC
attributeId: 1.2.840.113556.1.4.1958
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 3e1ee99c-6604-4489-89d9-84798a89515a
systemOnly: FALSE
searchFlags: 0
linkID: 2112
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.229 Attribute msDS-AuthenticatedToAccountlist

This attribute specifies the back link for ms-DS-AuthenticatedAt-DC. For a computer, it identifies which users have authenticated to this computer.

```
cn: ms-DS-AuthenticatedTo-Accountlist
ldapDisplayName: msDS-AuthenticatedToAccountlist
attributeId: 1.2.840.113556.1.4.1957
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: e8b2c971-a6df-47bc-8d6f-62770d527aa5
systemOnly: TRUE
searchFlags: 0
linkID: 2113
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.230 Attribute msDS-AuthNPolicyEnforced

This attribute specifies whether the authentication policy is enforced.

```
cn: ms-DS-AuthN-Policy-Enforced
ldapDisplayName: msDS-AuthNPolicyEnforced
attributeId: 1.2.840.113556.1.4.2297
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 7a560cc2-ec45-44ba-b2d7-21236ad59fd5
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.231 Attribute msDS-AuthNPolicySiloEnforced

This attribute specifies whether the authentication policy silo is enforced.

```
cn: ms-DS-AuthN-Policy-Silo-Enforced
ldapDisplayName: msDS-AuthNPolicySiloEnforced
attributeId: 1.2.840.113556.1.4.2298
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: f2f51102-6be0-493d-8726-1546cdbc8771
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.232 Attribute msDS-AuthNPolicySiloMembers

This attribute specifies which principals are assigned to the AuthNPolicySilo object.

```
cn: ms-DS-AuthN-Policy-Silo-Members
ldapDisplayName: msDS-AuthNPolicySiloMembers
attributeId: 1.2.840.113556.1.4.2287
attributeSyntax: 2.5.5.1
omObjectClass: 1.3.12.2.1011.28.0.714
omSyntax: 127
isSingleValued: FALSE
schemaIdGuid: 164d1e05-48a6-4886-a8e9-77a2006e3c77
systemOnly: FALSE
searchFlags: 0
linkID: 2204
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.233 Attribute msDS-AuthNPolicySiloMembersBL

This attribute is the backlink for msDS-AuthNPolicySiloMembers.

```
cn: ms-DS-AuthN-Policy-Silo-Members-BL
ldapDisplayName: msDS-AuthNPolicySiloMembersBL
attributeId: 1.2.840.113556.1.4.2288
attributeSyntax: 2.5.5.1
omObjectClass: 1.3.12.2.1011.28.0.714
omSyntax: 127
isSingleValued: FALSE
schemaIdGuid: 11fccbc7-fbe4-4951-b4b7-addf6f9efd44
systemOnly: TRUE
searchFlags: 0
linkID: 2205
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.234 Attribute msDS-Auxiliary-Classes

For a given object, this attribute specifies the list of auxiliary classes that have been dynamically attached to an object. For more information, see [MS-ADTS] section 3.1.1.2.

```
cn: ms-DS-Auxiliary-Classes
ldapDisplayName: msDS-Auxiliary-Classes
attributeId: 1.2.840.113556.1.4.1458
attributeSyntax: 2.5.5.2
omSyntax: 6
isSingleValued: FALSE
schemaIdGuid: c4af1073-ee50-4be0-b8c0-89a41fe99abe
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.235 Attribute msDS-AzApplicationData

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

```
cn: ms-DS-Az-Application-Data
ldapDisplayName: msDS-AzApplicationData
attributeId: 1.2.840.113556.1.4.1819
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 503fc3e8-1cc6-461a-99a3-9eee04f402a7
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.236 Attribute msDS-AzApplicationName

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Application-Name
ldapDisplayName: msDS-AzApplicationName
attributeId: 1.2.840.113556.1.4.1798
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: db5b0728-6208-4876-83b7-95d3e5695275
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 512
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.237 Attribute msDS-AzApplicationVersion

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Application-Version
ldapDisplayName: msDS-AzApplicationVersion
attributeId: 1.2.840.113556.1.4.1817
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 7184a120-3ac4-47ae-848f-fe0ab20784d4
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.238 Attribute msDS-AzBizRule

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Biz-Rule
ldapDisplayName: msDS-AzBizRule
attributeId: 1.2.840.113556.1.4.1801
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 33d41ea8-c0c9-4c92-9494-f104878413fd
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 65536
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.239 Attribute msDS-AzBizRuleLanguage

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Biz-Rule-Language
ldapDisplayName: msDS-AzBizRuleLanguage
attributeId: 1.2.840.113556.1.4.1802
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 52994b56-0e6c-4e07-aa5c-ef9d7f5a0e25
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 64
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.240 Attribute msDS-AzClassId

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Class-ID
ldapDisplayName: msDS-AzClassId
attributeId: 1.2.840.113556.1.4.1816
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 013a7277-5c2d-49ef-a7de-b765b36a3f6f
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 40
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.241 Attribute msDS-AzDomainTimeout

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Domain-Timeout
ldapDisplayName: msDS-AzDomainTimeout
attributeId: 1.2.840.113556.1.4.1795
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 6448f56a-ca70-4e2e-b0af-d20e4ce653d0
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.242 Attribute msDS-AzGenerateAudits

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Generate-Audits
ldapDisplayName: msDS-AzGenerateAudits
attributeId: 1.2.840.113556.1.4.1805
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: f90abab0-186c-4418-bb85-88447c87222a
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.243 Attribute msDS-AzGenericData

This attribute specifies AzMan-specific generic data.

```
cn: ms-DS-Az-Generic-Data
ldapDisplayName: msDS-AzGenericData
attributeId: 1.2.840.113556.1.4.1950
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: b5f7e349-7a5b-407c-a334-a31c3f538b98
systemOnly: FALSE
searchFlags: 0
rangeUpper: 65536
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.244 Attribute msDS-AzLastImportedBizRulePath

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Last-Imported-Biz-Rule-Path
ldapDisplayName: msDS-AzLastImportedBizRulePath
attributeId: 1.2.840.113556.1.4.1803
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 665acb5c-bb92-4dbc-8c59-b3638eab09b3
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 65536
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.245 Attribute msDS-AzLDAPQuery

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-LDAP-Query
ldapDisplayName: msDS-AzLDAPQuery
attributeId: 1.2.840.113556.1.4.1792
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 5e53368b-fc94-45c8-9d7d-daf31ee7112d
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 4096
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.246 Attribute msDS-AzMajorVersion

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Major-Version
ldapDisplayName: msDS-AzMajorVersion
attributeId: 1.2.840.113556.1.4.1824
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: cfb9adb7-c4b7-4059-9568-1ed9db6b7248
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.247 Attribute msDS-AzMinorVersion

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Minor-Version
ldapDisplayName: msDS-AzMinorVersion
attributeId: 1.2.840.113556.1.4.1825
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ee85ed93-b209-4788-8165-e702f51bfbf3
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.248 Attribute msDS-AzObjectGuid

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

```
cn: ms-DS-Az-Object-Guid
ldapDisplayName: msDS-AzObjectGuid
attributeId: 1.2.840.113556.1.4.1949
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 8491e548-6c38-4365-a732-af041569b02c
systemOnly: TRUE
searchFlags: fATTINDEX
rangeLower: 16
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.249 Attribute msDS-AzOperationID

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Operation-ID
ldapDisplayName: msDS-AzOperationID
attributeId: 1.2.840.113556.1.4.1800
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: a5f3b553-5d76-4cbe-ba3f-4312152cab18
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.250 Attribute msDS-AzScopeName

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Scope-Name
ldapDisplayName: msDS-AzScopeName
attributeId: 1.2.840.113556.1.4.1799
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 515a6b06-2617-4173-8099-d5605df043c6
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 65536
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.251 Attribute msDS-AzScriptEngineCacheMax

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Script-Engine-Cache-Max
ldapDisplayName: msDS-AzScriptEngineCacheMax
attributeId: 1.2.840.113556.1.4.1796
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 2629f66a-1f95-4bf3-a296-8e9d7b9e30c8
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.252 Attribute msDS-AzScriptTimeout

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Script-Timeout
ldapDisplayName: msDS-AzScriptTimeout
attributeId: 1.2.840.113556.1.4.1797
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 87d0fb41-2c8b-41f6-b972-11fdfd50d6b0
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.253 Attribute msDS-AzTaskIsRoleDefinition

This attribute is used by applications that leverage Active Directory for authentication and authorization.

```
cn: ms-DS-Az-Task-Is-Role-Definition
ldapDisplayName: msDS-AzTaskIsRoleDefinition
attributeId: 1.2.840.113556.1.4.1818
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 7b078544-6c82-4fe9-872f-ff48ad2b2e26
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.254 Attribute msDS-Behavior-Version

For a given Active Directory domain or forest, this attribute specifies the domain or forest behavior version. It is a monotonically increasing number that is used to enable certain Active Directory features.

```
cn: ms-DS-Behavior-Version
ldapDisplayName: msDS-Behavior-Version
attributeId: 1.2.840.113556.1.4.1459
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: d31a8757-2447-4545-8081-3bb610cacbf2
systemOnly: TRUE
searchFlags: 0
rangeLower: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.255 Attribute msDS-BridgeHeadServersUsed

This attribute specifies the list of bridge head servers used by the KCC in the previous run.

```
cn: ms-DS-BridgeHead-Servers-Used
ldapDisplayName: msDS-BridgeHeadServersUsed
attributeId: 1.2.840.113556.1.4.2049
attributeSyntax: 2.5.5.7
omSyntax: 127
omObjectClass: 1.2.840.113556.1.1.1.11
linkID: 2160
isSingleValued: FALSE
showInAdvancedViewOnly: TRUE
schemaIdGuid: 3ced1465-7b71-2541-8780-1e1ea6243a82
searchFlags: 0
systemFlags: FLAG_ATTR_NOT_REPLICATED | FLAG_ATTR_IS_OPERATIONAL |
 FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.256 Attribute msDS-ByteArray

This attribute specifies binary data for a given object. Its use is dependent on the object with which it is associated.

```
cn: ms-DS-Byte-Array
ldapDisplayName: msDS-ByteArray
attributeId: 1.2.840.113556.1.4.1831
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: f0d8972e-dd5b-40e5-a51d-044c7c17ece7
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1000000
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.257 Attribute msDS-Cached-Membership

This attribute specifies a membership of cached groups and is used during group expansion. For more information, see [MS-SAMR].

```
cn: ms-DS-Cached-Membership
ldapDisplayName: msDS-Cached-Membership
attributeId: 1.2.840.113556.1.4.1441
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 69cab008-cdd4-4bc9-bab8-0ff37efe1b20
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.258 Attribute msDS-Cached-Membership-Time-Stamp

This attribute specifies the time stamp of cached groups and is used during group expansion. For more information, see [MS-SAMR].

```
cn: ms-DS-Cached-Membership-Time-Stamp
ldapDisplayName: msDS-Cached-Membership-Time-Stamp
attributeId: 1.2.840.113556.1.4.1442
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 3566bf1f-beee-4dcb-8abe-ef89fcfec6c1
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.259 Attribute msDS-ClaimAttributeSource

For a claim type object, this attribute points to the attribute that will be used as the source for the claim type.

```
cn: ms-DS-Claim-Attribute-Source
ldapDisplayName: msDS-ClaimAttributeSource
attributeId: 1.2.840.113556.1.4.2099
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: eebc123e-bae6-4166-9e5b-29884a8b76b0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.260 Attribute msDS-ClaimIsSingleValued

For a claim type object, this attribute identifies whether the claim type or resource property can contain only a single value.

```
cn: ms-DS-Claim-Is-Single-Valued
ldapDisplayName: msDS-ClaimIsSingleValued
attributeId: 1.2.840.113556.1.4.2160
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
systemOnly: TRUE
searchFlags: 0
schemaIdGuid: cd789fb9-96b4-4648-8219-ca378161af38
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.261 Attribute msDS-ClaimIsValueSpaceRestricted

For a claim type, this attribute identifies whether a user can enter values in applications other than those described for the msDS-ClaimPossibleValues attribute.

```
cn: ms-DS-Claim-Is-Value-Space-Restricted
ldapDisplayName: msDS-ClaimIsValueSpaceRestricted
attributeId: 1.2.840.113556.1.4.2159
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
schemaIdGuid: 0c2ce4c7-f1c3-4482-8578-c60d4bb74422
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.262 Attribute msDS-ClaimPossibleValues

For a claim type or resource property object, this attribute describes the values suggested to a user when he or she uses the claim type or resource property in applications.

```
cn: ms-DS-Claim-Possible-Values
ldapDisplayName: msDS-ClaimPossibleValues
attributeId: 1.2.840.113556.1.4.2097
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1048576
schemaIdGuid: 2e28edee-ed7c-453f-afe4-93bd86f2174f
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.263 Attribute msDS-ClaimSharesPossibleValuesWith

For a claim type object, this attribute indicates that the possible values of the claims issued are defined on the object that this linked attribute points to. If populated, this attribute overrides msDS-ClaimPossibleValues, msDS-ClaimValueType, and msDS-ClaimIsValueSpaceRestricted.

```
cn: ms-DS-Claim-Shares-Possible-Values-With
ldapDisplayName: msDS-ClaimSharesPossibleValuesWith
attributeId: 1.2.840.113556.1.4.2101
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: 52c8d13a-ce0b-4f57-892b-18f5a43a2400
linkID: 2178
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.264 Attribute msDS-ClaimSharesPossibleValuesWithBL

For a claim type object, this attribute indicates that the possible values described in msDS-ClaimPossibleValues are being referenced by other claim type objects.

```
cn: ms-DS-Claim-Shares-Possible-Values-With-BL
ldapDisplayName: msDS-ClaimSharesPossibleValuesWithBL
attributeId: 1.2.840.113556.1.4.2102
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: 54d522db-ec95-48f5-9bbd-1880ebbb2180
linkID: 2179
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.265 Attribute msDS-ClaimSource

For a claim type, this attribute indicates the source of the claim type. For example, the source can be a certificate.

```
cn: ms-DS-Claim-Source
ldapDisplayName: msDS-ClaimSource
attributeId: 1.2.840.113556.1.4.2157
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
schemaIdGuid: fa32f2a6-f28b-47d0-bf91-663e8f910a72
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.266 Attribute msDS-ClaimSourceType

For a security principal claim type, this attribute lists the type of store the issued claim is sourced from.

```
cn: ms-DS-Claim-Source-Type
ldapDisplayName: msDS-ClaimSourceType
attributeId: 1.2.840.113556.1.4.2158
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
schemaIdGuid: 92f19c05-8dfa-4222-bbd1-2c4f01487754
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.267 Attribute msDS-ClaimTypeAppliesToClass

For a claim type object, this linked attribute points to the Active Directory security principal classes for which claims are issued (for example, a link to the user class).

```
cn: ms-DS-Claim-Type-Applies-To-Class
ldapDisplayName: msDS-ClaimTypeAppliesToClass
attributeId: 1.2.840.113556.1.4.2100
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: 6afb0e4c-d876-437c-aeb6-c3e41454c272
linkID: 2176
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.268 Attribute msDS-ClaimValueType

For a claim type object, this attribute specifies the value type of the claims issued.

```
cn: ms-DS-Claim-Value-Type
ldapDisplayName: msDS-ClaimValueType
attributeId: 1.2.840.113556.1.4.2098
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
systemOnly: TRUE
searchFlags: 0
schemaIdGuid: c66217b9-e48e-47f7-b7d5-6552b8afd619
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.269 Attribute msDS-CloudAnchor

This attribute is used by the DirSync engine to specify the object start of authority and to maintain the relationship between on-premises and cloud objects.

```
cn: ms-DS-Cloud-Anchor
ldapDisplayName: msDS-CloudAnchor
attributeId: 1.2.840.113556.1.4.2273
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 78565e80-03d4-4fe3-afac-8c3bca2f3653
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.270 Attribute msDS-cloudExtensionAttribute1

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute1
lDAPDisplayName: msDS-cloudExtensionAttribute1
attributeID: 1.2.840.113556.1.4.2214
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 9709eaaf-49da-4db2-908a-0446e5eab844
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.271 Attribute msDS-cloudExtensionAttribute2

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute2
lDAPDisplayName: msDS-cloudExtensionAttribute2
attributeID: 1.2.840.113556.1.4.2215
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: f34ee0ac-c0c1-4ba9-82c9-1a90752f16a5
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.272 Attribute msDS-cloudExtensionAttribute3

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute3
lDAPDisplayName: msDS-cloudExtensionAttribute3
attributeID: 1.2.840.113556.1.4.2216
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 82f6c81a-fada-4a0d-b0f7-706d46838eb5
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.273 Attribute msDS-cloudExtensionAttribute4

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute4
lDAPDisplayName: msDS-cloudExtensionAttribute4
attributeID: 1.2.840.113556.1.4.2217
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 9cbf3437-4e6e-485b-b291-22b02554273f
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.274 Attribute msDS-cloudExtensionAttribute5

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute5
```

```
lDAPDisplayName: msDS-cloudExtensionAttribute5
attributeID: 1.2.840.113556.1.4.2218
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 2915e85b-e347-4852-aabb-22e5a651c864
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.275 Attribute msDS-cloudExtensionAttribute6

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute6
lDAPDisplayName: msDS-cloudExtensionAttribute6
attributeID: 1.2.840.113556.1.4.2219
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 60452679-28e1-4bec-ace3-712833361456
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.276 Attribute msDS-cloudExtensionAttribute7

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute7
lDAPDisplayName: msDS-cloudExtensionAttribute7
attributeID: 1.2.840.113556.1.4.2220
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 4a7c1319-e34e-40c2-9d00-60ff7890f207
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.277 Attribute msDS-cloudExtensionAttribute8

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute8
lDAPDisplayName: msDS-cloudExtensionAttribute8
attributeID: 1.2.840.113556.1.4.2221
```

```
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 3cd1c514-8449-44ca-81c0-021781800d2a
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.278 Attribute msDS-cloudExtensionAttribute9

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute9
lDAPDisplayName: msDS-cloudExtensionAttribute9
attributeID: 1.2.840.113556.1.4.2222
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 0a63e12c-3040-4441-ae26-cd95af0d247e
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.279 Attribute msDS-cloudExtensionAttribute10

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute10
lDAPDisplayName: msDS-cloudExtensionAttribute10
attributeID: 1.2.840.113556.1.4.2223
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 670afcb3-13bd-47fc-90b3-0a527ed81ab7
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.280 Attribute msDS-cloudExtensionAttribute11

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute11
lDAPDisplayName: msDS-cloudExtensionAttribute11
attributeID: 1.2.840.113556.1.4.2224
attributeSyntax: 2.5.5.12
oMSyntax: 64
```

```
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 9e9ebbc8-7da5-42a6-8925-244e12a56e24
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.281 Attribute msDS-cloudExtensionAttribute12

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute12
lDAPDisplayName: msDS-cloudExtensionAttribute12
attributeID: 1.2.840.113556.1.4.2225
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 3c01c43d-e10b-4fca-92b2-4cf615d5b09a
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.282 Attribute msDS-cloudExtensionAttribute13

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute13
lDAPDisplayName: msDS-cloudExtensionAttribute13
attributeID: 1.2.840.113556.1.4.2226
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 28be464b-ab90-4b79-a6b0-df437431d036
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.283 Attribute msDS-cloudExtensionAttribute14

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute14
lDAPDisplayName: msDS-cloudExtensionAttribute14
attributeID: 1.2.840.113556.1.4.2227
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
```

```
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: cebcb6ba-6e80-4927-8560-98feca086a9f
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.284 Attribute msDS-cloudExtensionAttribute15

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute15
lDAPDisplayName: msDS-cloudExtensionAttribute15
attributeID: 1.2.840.113556.1.4.2228
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: aae4d537-8af0-4daa-9cc6-62eadb84ff03
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.285 Attribute msDS-cloudExtensionAttribute16

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute16
lDAPDisplayName: msDS-cloudExtensionAttribute16
attributeID: 1.2.840.113556.1.4.2229
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 9581215b-5196-4053-a11e-6ffcafc62c4d
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.286 Attribute msDS-cloudExtensionAttribute17

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute17
lDAPDisplayName: msDS-cloudExtensionAttribute17
attributeID: 1.2.840.113556.1.4.2230
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
```

```
schemaIDGUID: 3d3c6dda-6be8-4229-967e-2ff5bb93b4ce
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.287 Attribute msDS-cloudExtensionAttribute18

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute18
lDAPDisplayName: msDS-cloudExtensionAttribute18
attributeID: 1.2.840.113556.1.4.2231
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 88e73b34-0aa6-4469-9842-6eb01b32a5b5
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.288 Attribute msDS-cloudExtensionAttribute19

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute19
lDAPDisplayName: msDS-cloudExtensionAttribute19
attributeID: 1.2.840.113556.1.4.2232
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: 0975fe99-9607-468a-8e18-c800d3387395
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.289 Attribute msDS-cloudExtensionAttribute20

This attribute contains an arbitrary, cloud-relevant string.

```
cn: ms-DS-cloudExtensionAttribute20
lDAPDisplayName: msDS-cloudExtensionAttribute20
attributeID: 1.2.840.113556.1.4.2233
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
schemaIDGUID: f5446328-8b6e-498d-95a8-211748d5acdc
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
```

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.290 Attribute msDS-CloudIsEnabled

This attribute is used to indicate whether the cloud device registration service is enabled.

```
cn: ms-DS-Cloud-IsEnabled
ldapDisplayName: msDS-CloudIsEnabled
attributeId: 1.2.840.113556.1.4.2275
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 89848328-7c4e-4f6f-a013-28ce3ad282dc
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.291 Attribute msDS-CloudIsManaged

This attribute is used to indicate that the device is managed by a cloud mobile device manager.

```
cn: ms-DS-Cloud-IsManaged
ldapDisplayName: msDS-CloudIsManaged
attributeId: 1.2.840.113556.1.4.2271
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 5315ba8e-958f-4b52-bd38-1349a304dd63
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.292 Attribute msDS-CloudIssuerPublicCertificates

This attribute specifies the public keys used by the cloud device registration service to sign certificates that have been issued by the registration service.

```
cn: ms-DS-Cloud-Issuer-Public-Certificates
ldapDisplayName: msDS-CloudIssuerPublicCertificates
attributeId: 1.2.840.113556.1.4.2274
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: a1e8b54f-4bd6-4fd2-98e2-bcee92a55497
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 65536
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.293 Attribute msDS-ComputerAllowedToAuthenticateTo

This attribute is used to determine whether a computer has permission to authenticate to a service.

```
cn: ms-DS-Computer-Allowed-To-Authenticate-To
ldapDisplayName: msDS-ComputerAllowedToAuthenticateTo
attributeId: 1.2.840.113556.1.4.2280
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 105babe9-077e-4793-b974-ef0410b62573
systemOnly: FALSE
searchFlags: 0
RangeLower: 0
RangeUpper: 132096
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.294 Attribute msDS-ComputerAuthNPolicy

This attribute specifies which AuthNPolicy is applied to computers assigned to this silo object.

```
cn: ms-DS-Computer-AuthN-Policy
ldapDisplayName: msDS-ComputerAuthNPolicy
attributeId: 1.2.840.113556.1.4.2291
attributeSyntax: 2.5.5.1
omObjectClass: 1.3.12.2.1011.28.0.714
omSyntax: 127
isSingleValued: TRUE
schemaIdGuid: afb863c9-bea3-440f-a9f3-6153cc668929
systemOnly: FALSE
searchFlags: 0
linkID: 2208
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.295 Attribute msDS-ComputerAuthNPolicyBL

This attribute is the backlink for msDS-ComputerAuthNPolicy.

```
cn: ms-DS-Computer-AuthN-Policy-BL
ldapDisplayName: msDS-ComputerAuthNPolicyBL
attributeId: 1.2.840.113556.1.4.2292
attributeSyntax: 2.5.5.1
omObjectClass: 1.3.12.2.1011.28.0.714
omSyntax: 127
isSingleValued: FALSE
schemaIdGuid: 2bef6232-30a1-457e-8604-7af6dbf131b8
systemOnly: TRUE
searchFlags: 0
linkID: 2209
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.296 Attribute msDS-ComputerSID

This attribute identifies a domain-joined computer.

```
cn: ms-DS-Computer-SID
ldapDisplayName: msDS-ComputerSID
attributeId: 1.2.840.113556.1.4.2321
attributeSyntax: 2.5.5.17
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: dffbd720-0872-402e-9940-fcd78db049ba
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: FALSE
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016 operating system.

2.297 Attribute msDS-ComputerTGTLifetime

This attribute specifies the maximum age of a Kerberos TGT issued to a computer in units of $10^{(-7)}$ seconds.

```
cn: ms-DS-Computer-TGT-Lifetime
ldapDisplayName: msDS-ComputerTGTLifetime
attributeId: 1.2.840.113556.1.4.2281
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 2e937524-dfb9-4cac-a436-a5b7da64fd66
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.298 Attribute msDS-CustomKeyInformation

This attribute contains additional information about the key.

```
cn: ms-DS-Custom-Key-Information
ldapDisplayName: msDS-CustomKeyInformation
attributeId: 1.2.840.113556.1.4.2322
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: b6e5e988-e5e4-4c86-a2ae-0dacb970a0e1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
RangeLower: 0
RangeUpper: 132096
isMemberOfPartialAttributeSet: FALSE
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.299 Attribute msDS-DateTime

This attribute specifies the date and time for a given object. Its use is dependent on the object with which it is associated.

```
cn: ms-DS-Date-Time
ldapDisplayName: msDS-DateTime
attributeId: 1.2.840.113556.1.4.1832
attributeSyntax: 2.5.5.11
omSyntax: 24
isSingleValued: FALSE
schemaIdGuid: 234fcbd8-fb52-4908-a328-fd9f6e58e403
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.300 Attribute msDS-DefaultQuota

This attribute specifies the default object creation quota for a given security principle. For more information, see [MS-ADTS] section 6.1.1.4.

```
cn: ms-DS-Default-Quota
ldapDisplayName: msDS-DefaultQuota
attributeId: 1.2.840.113556.1.4.1846
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 6818f726-674b-441b-8a3a-f40596374cea
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.301 (Added Section) Attribute msDS-DelegatedMSAState

This attribute is used to track whether a DelegatedManagedServiceAccount has been Linked to a Service Account.

```
cn: ms-DS-Delegated-MSA-State
ldapDisplayName: msDS-DelegatedMSAState
attributeId: 1.2.840.113556.1.4.2372
attributeSyntax: 2.5.5.9
omSyntax: 10
isSingleValued: TRUE
schemaIdGuid: 2f5c138a-bd38-4016-88b4-0ec87cbb4919
systemOnly: FALSE
searchFlags: 0
showInAdvancedViewOnly: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2025 operating system.

2.302 Attribute msDS-DeletedObjectLifetime

This attribute specifies the lifetime of deleted objects.

```
cn: ms-DS-Deleted-Object-Lifetime
ldapDisplayName: msDS-DeletedObjectLifetime
attributeId: 1.2.840.113556.1.4.2068
attributeSyntax: 2.5.5.9
omSyntax: 10
isSingleValued: TRUE
schemaIdGuid: a9b38cb6-189a-4def-8a70-0fcfa158148e
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.303 Attribute msDS-DeviceDN

This attribute identifies the registered device from which this key object was provisioned.

```
cn: ms-DS-Device-DN
ldapDisplayName: msDS-DeviceDN
attributeId: 1.2.840.113556.1.4.2320
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 642c1129-3899-4721-8e21-4839e3988ce5
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: FALSE
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.304 Attribute msDS-DeviceID

This attribute stores the ID of the device.

```
cn: ms-DS-Device-ID
ldapDisplayName: msDS-DeviceID
attributeId: 1.2.840.113556.1.4.2252
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: c30181c7-6342-41fb-b279-f7c566cbe0a7
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 16
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
showInAdvancedViewOnly: TRUE
```

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

2.305 Attribute msDS-DeviceLocation

This attribute specifies the DN under which the device objects will be created.

```
cn: ms-DS-Device-Location
ldapDisplayName: msDS-DeviceLocation
attributeId: 1.2.840.113556.1.4.2261
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: e3fb56c8-5de8-45f5-b1b1-d2b6cd31e762
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.306 Attribute msDS-DeviceMDMStatus

This attribute is used to manage the mobile device management status of the device.

```
cn: ms-DS-Device-MDMStatus
ldapDisplayName: msDS-DeviceMDMStatus
attributeId: 1.2.840.113556.1.4.2308
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
rangeUpper: 256
schemaIdGuid: f60a8f96-57c4-422c-a3ad-9e2fa09ce6f7
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.307 Attribute msDS-DeviceObjectVersion

This attribute is used to identify the schema version of the device.

```
cn: ms-DS-Device-Object-Version
ldapDisplayName: msDS-DeviceObjectVersion
attributeId: 1.2.840.113556.1.4.2257
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ef65695a-f179-4e6a-93de-b01e06681cfb
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_ATTR_REQ_PARTIAL_SET_MEMBER | FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
showInAdvancedViewOnly: TRUE
```

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

2.308 Attribute msDS-DeviceOSType

This attribute is used to track the type of device based on the operating system.

```
cn: ms-DS-Device-OS-Type
ldapDisplayName: msDS-DeviceOSType
attributeId: 1.2.840.113556.1.4.2249
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 100e454d-f3bb-4dcb-845f-8d5edc471c59
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 0
rangeUpper: 1024
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
showInAdvancedViewOnly: TRUE
```

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

2.309 Attribute msDS-DeviceOSVersion

This attribute is used to track the operating system version of the device.

```
cn: ms-DS-Device-OS-Version
ldapDisplayName: msDS-DeviceOSVersion
attributeId: 1.2.840.113556.1.4.2250
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 70fb8c63-5fab-4504-ab9d-14b329a8a7f8
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 0
rangeUpper: 512
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
showInAdvancedViewOnly: TRUE
```

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

2.310 Attribute msDS-DevicePhysicalIDs

This attribute is used to store identifiers of the physical device.

```
cn: ms-DS-Device-Physical-IDs
ldapDisplayName: msDS-DevicePhysicalIDs
attributeId: 1.2.840.113556.1.4.2251
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 90615414-a2a0-4447-a993-53409599b74e
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 1
rangeUpper: 1024
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
showInAdvancedViewOnly: TRUE
```

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

2.311 Attribute msDS-DeviceTrustType

This attribute represents the join type for devices.

```
cn: ms-DS-Device-Trust-Type
ldapDisplayName: msDS-DeviceTrustType
attributeId: 1.2.840.113556.1.4.2325
oMSyntax: 2
attributeSyntax: 2.5.5.9
isSingleValued: TRUE
schemaIDGUID: c4a46807-6adc-4bbb-97de-6bed181a1bfe
searchFlags: 0
systemOnly: FALSE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.312 Attribute msDS-DnsRootAlias

This attribute specifies the additional fully qualified domain names (FQDNs) (1) ([MS-ADTS] section 1.1) for a given application naming context (NC).

```
cn: ms-DS-DnsRootAlias
ldapDisplayName: msDS-DnsRootAlias
attributeId: 1.2.840.113556.1.4.1719
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 2143acca-eead-4d29-b591-85fa49ce9173
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 255
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.313 Attribute msDS-DrsFarmID

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

```
cn: ms-DS-Drs-Farm-ID
ldapDisplayName: msDS-DrsFarmID
attributeId: 1.2.840.113556.1.4.2265
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: TRUE
searchFlags: 0
schemaIdGuid: 6055f766-202e-49cd-a8be-e52bb159edfb
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

```
isDefunct: TRUE
```

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

2.314 Attribute msDS-EgressClaimsTransformationPolicy

This attribute is a link to a claims transformation policy object for the egress claims (that is, claims leaving this forest) to the Trusted Domain. This attribute is applicable only for an incoming or bidirectional cross-forest trust. When this link is not present, all claims are allowed to egress as is.

```
cn: ms-DS-Egress-Claims-Transformation-Policy
ldapDisplayName: msDS-EgressClaimsTransformationPolicy
attributeId: 1.2.840.113556.1.4.2192
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: c137427e-9a73-b040-9190-1b095bb43288
linkID: 2192
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.315 Attribute msDS-EnabledFeature

This attribute lists the enabled optional features.

```
cn: ms-DS-Enabled-Feature
ldapDisplayName: msDS-EnabledFeature
attributeId: 1.2.840.113556.1.4.2061
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
linkId: 2168
isSingleValued: FALSE
schemaIdGuid: 5706aeaf-b940-4fb2-bcfc-5268683ad9fe
isMemberOfPartialAttributeSet: TRUE
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.316 Attribute msDS-EnabledFeatureBL

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

```
cn: ms-DS-Enabled-Feature-BL
ldapDisplayName: msDS-EnabledFeatureBL
attributeId: 1.2.840.113556.1.4.2069
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
```

```
linkId: 2169
isSingleValued: FALSE
schemaIdGuid: ce5b01bc-17c6-44b8-9dc1-a9668b00901b
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.317 Attribute msDS-Entry-Time-To-Die

This attribute specifies the absolute expiration time of a dynamic object in the directory. For more information, see [MS-ADTS].

```
cn: ms-DS-Entry-Time-To-Die
ldapDisplayName: msDS-Entry-Time-To-Die
attributeId: 1.2.840.113556.1.4.1622
attributeSyntax: 2.5.5.11
omSyntax: 24
isSingleValued: TRUE
schemaIdGuid: e1e9bad7-c6dd-4101-a843-794cec85b038
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE | fATTINDEX
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_OPERATIONAL
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.318 Attribute msDS-ExecuteScriptPassword

This attribute specifies a password to be used when renaming an Active Directory domain or forest.

```
cn: ms-DS-ExecuteScriptPassword
ldapDisplayName: msDS-ExecuteScriptPassword
attributeId: 1.2.840.113556.1.4.1783
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 9d054a5a-d187-46c1-9d85-42dfc44a56dd
systemOnly: TRUE
searchFlags: 0
rangeLower: 0
rangeUpper: 64
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.319 Attribute msDS-ExpirePasswordsOnSmartCardOnlyAccounts

This attribute controls whether the passwords on smart-card-only accounts expire in accordance with the password policy.

```
cn: ms-DS-Expire-Passwords-On-Smart-Card-Only-Accounts
lDAPDisplayName: msDS-ExpirePasswordsOnSmartCardOnlyAccounts
attributeID: 1.2.840.113556.1.4.2344
attributeSyntax: 2.5.5.8
oMSyntax: 1
isSingleValued: TRUE
schemaIDGUID: 3417ab48-df24-4fb1-80b0-0fcb367e25e3
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.320 Attribute msDS-ExternalDirectoryObjectId

This attribute specifies the unique identifier for users and groups and is populated when applicable Windows Server releases of Active Directory are federated with Azure Active Directory.

```
cn: ms-DS-External-Directory-Object-Id
ldapDisplayName: msDS-ExternalDirectoryObjectId
attributeId: 1.2.840.113556.1.4.2310
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
rangeUpper: 256
schemaIdGuid: bd29bf90-66ad-40e1-887b-10df070419a6
systemOnly: FALSE
searchFlags: fATTINDEX | fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
isMemberOfPartialAttributeSet: TRUE
showInAdvancedViewOnly: FALSE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.321 Attribute msDS-ExternalKey

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

```
cn: ms-DS-External-Key
ldapDisplayName: msDS-ExternalKey
attributeId: 1.2.840.113556.1.4.1833
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: b92fd528-38ac-40d4-818d-0433380837c1
systemOnly: FALSE
searchFlags: 0
rangeUpper: 10000
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.322 Attribute msDS-ExternalStore

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

```
cn: ms-DS-External-Store
ldapDisplayName: msDS-ExternalStore
attributeId: 1.2.840.113556.1.4.1834
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 604877cd-9cdb-47c7-b03d-3daadb044910
systemOnly: FALSE
searchFlags: 0
rangeUpper: 10000
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.323 Attribute msDS-FailedInteractiveLogonCount

This attribute specifies the total number of failed interactive logons since this feature was turned on.

```
cn: ms-DS-Failed-Interactive-Logon-Count
ldapDisplayName: msDS-FailedInteractiveLogonCount
attributeId: 1.2.840.113556.1.4.1972
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: dc3ca86f-70ad-4960-8425-a4d6313d93dd
systemOnly: TRUE
searchFlags: 0
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.324 Attribute msDS-FailedInteractiveLogonCountAtLastSuccessfulLogon

This attribute specifies the total number of failed interactive logons up until the last successful Ctrl-Alt-Del logon.

```
cn: ms-DS-Failed-Interactive-Logon-Count-At-Last-Successful-Logon
ldapDisplayName: msDS-FailedInteractiveLogonCountAtLastSuccessfulLogon
attributeId: 1.2.840.113556.1.4.1973
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: c5d234e5-644a-4403-a665-e26e0aef5e98
systemOnly: TRUE
searchFlags: 0
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.325 Attribute msDS-FilterContainers

This attribute specifies which container types are shown by the Active Directory Users and Computers Microsoft Management Console (ADUC MMC) snap-in.

```
cn: ms-DS-Filter-Containers
```

```
ldapDisplayName: msDS-FilterContainers
attributeId: 1.2.840.113556.1.4.1703
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: fb00dcdf-ac37-483a-9c12-ac53a6603033
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 64
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.326 Attribute msDS-GenerationId

For a virtual machine (VM) snapshot resuming detection, this attribute represents the VM Generation ID.

```
cn: ms-DS-Generation-Id
ldapDisplayName: msDS-GenerationId
attributeId: 1.2.840.113556.1.4.2166
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
rangeLower: 16
rangeUpper: 16
systemOnly: TRUE
searchFlags: 0
schemaIdGuid: 1e5d393d-8cb7-4b4f-840a-973b36cc09c3
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.327 Attribute msDS-GeoCoordinatesAltitude

This attribute describes the elevation in a geographic coordinate system.

```
cn: ms-DS-GeoCoordinates-Altitude
ldapDisplayName: msDS-GeoCoordinatesAltitude
attributeId: 1.2.840.113556.1.4.2183
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
searchFlags: fATTINDEX
schemaIdGuid: a11703b7-5641-4d9c-863e-5fb3325e74e0
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.328 Attribute msDS-GeoCoordinatesLatitude

This attribute describes the latitude in a geographic coordinate system.

```
cn: ms-DS-GeoCoordinates-Latitude
ldapDisplayName: msDS-GeoCoordinatesLatitude
attributeId: 1.2.840.113556.1.4.2184
attributeSyntax: 2.5.5.16
```

```
omSyntax: 65
isSingleValued: TRUE
searchFlags: fATTINDEX
schemaIdGuid: dc66d44e-3d43-40f5-85c5-3c12e169927e
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.329 Attribute msDS-GeoCoordinatesLongitude

This attribute describes the longitude in a geographic coordinate system.

```
cn: ms-DS-GeoCoordinates-Longitude
ldapDisplayName: msDS-GeoCoordinatesLongitude
attributeId: 1.2.840.113556.1.4.2185
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
searchFlags: fATTINDEX
schemaIdGuid: 94c42110-bae4-4cea-8577-af813af5da25
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.330 Attribute msDS-GroupMSAMembership

This attribute is used for access checks to determine if a requestor has permission to retrieve the password for a group MSA.

```
cn: ms-DS-GroupMSAMembership
ldapDisplayName: msDS-GroupMSAMembership
attributeId: 1.2.840.113556.1.4.2200
attributeSyntax: 2.5.5.15
omSyntax: 66
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeUpper: 132096
schemaIdGuid: 888eedd6-ce04-df40-b462-b8a50e41ba38
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.331 Attribute msDS-HABSeniorityIndex

This attribute contains the seniority index as applied by the organization where the individual works.

```
cn: ms-DS-HAB-Seniority-Index
ldapDisplayName: msDS-HABSeniorityIndex
attributeId: 1.2.840.113556.1.4.1997
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: def449f1-fd3b-4045-98cf-d9658da788b5
systemOnly: FALSE
searchFlags: fATTINDEX
```

```
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
mapiID: 36000
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
```

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

2.332 Attribute msDS-HasDomainNCs

This attribute specifies replication information regarding the domain NCs that are present in a particular server. For more information, see [MS-DRSR].

```
cn: ms-DS-Has-Domain-NCs
ldapDisplayName: msDS-HasDomainNCs
attributeId: 1.2.840.113556.1.4.1820
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 6f17e347-a842-4498-b8b3-15e007da4fed
systemOnly: TRUE
searchFlags: 0
rangeLower: 4
rangeUpper: 4
linkID: 2026
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.333 Attribute msDS-hasFullReplicaNCs

For an Active Directory instance, this attribute identifies the partitions held as full replicas.

```
cn: ms-DS-Has-Full-Replica-NCs
ldapDisplayName: msDS-hasFullReplicaNCs
attributeId: 1.2.840.113556.1.4.1925
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 1d3c2d18-42d0-4868-99fe-0eca1e6fa9f3
systemOnly: TRUE
searchFlags: 0
linkID: 2104
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.334 Attribute msDS-HasInstantiatedNCs

This attribute specifies replication information in the form of the distinguished name of each naming context that is present on a particular server. For more information, see [MS-DRSR].

```
cn: ms-DS-Has-Instantiated-NCs
```

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```
ldapDisplayName: msDS-HasInstantiatedNCs
attributeId: 1.2.840.113556.1.4.1709
attributeSyntax: 2.5.5.7
omSyntax: 127
omObjectClass: 1.2.840.113556.1.1.1.11
isSingleValued: FALSE
schemaIdGuid: 11e9a5bc-4517-4049-af9c-51554fb0fc09
systemOnly: TRUE
searchFlags: 0
rangeLower: 4
rangeUpper: 4
linkID: 2002
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.335 Attribute msDS-hasMasterNCs

This attribute specifies the NCs contained on a domain controller (DC). For more information, see [MS-ADTS].

```
cn: ms-DS-Has-Master-NCs
ldapDisplayName: msDS-hasMasterNCs
attributeId: 1.2.840.113556.1.4.1836
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: ae2de0e2-59d7-4d47-8d47-ed4dfe4357ad
systemOnly: TRUE
searchFlags: 0
linkID: 2036
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.336 Attribute msDS-HostServiceAccount

On a computer object, this attribute lists service accounts that are configured to run on this computer.

```
cn: ms-DS-Host-Service-Account
ldapDisplayName: msDS-HostServiceAccount
attributeId: 1.2.840.113556.1.4.2056
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 80641043-15a2-40e1-92a2-8ca866f70776
attributeSecurityGUID: 77b5b886-944a-11d1-aebd-0000f80367c1
searchFlags: 0
linkID: 2166
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.337 Attribute msDS-HostServiceAccountBL

This attribute is the back link attribute for msDS-HostServiceAccount. It lists computer objects associated with a service account.

```
cn: ms-DS-Host-Service-Account-BL
ldapDisplayName: msDS-HostServiceAccountBL
attributeId: 1.2.840.113556.1.4.2057
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 79abe4eb-88f3-48e7-89d6-f4bc7e98c331
searchFlags: 0
linkID: 2167
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.338 Attribute msDS-IngressClaimsTransformationPolicy

This attribute is a link to a claims transformation policy object for the ingress claims (that is, claims entering this forest) from the Trusted Domain. This is applicable only for an outgoing or bidirectional cross-forest trust. If this link is absent, all the ingress claims are dropped.

```
cn: ms-DS-Ingress-Claims-Transformation-Policy
ldapDisplayName: msDS-IngressClaimsTransformationPolicy
attributeId: 1.2.840.113556.1.4.2191
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: 86284c08-0c6e-1540-8b15-75147d23d20d
linkID: 2190
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.339 Attribute msDS-Integer

This attribute specifies an integer for a given object. Its use is dependent on the object with which it is associated.

```
cn: ms-DS-Integer
ldapDisplayName: msDS-Integer
attributeId: 1.2.840.113556.1.4.1835
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: FALSE
schemaIdGuid: 7bc64cea-c04e-4318-b102-3e0729371a65
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.340 Attribute msDS-IntId

This attribute specifies an integer for a schema object. It can also be used to uniquely identify the associated schema object. For more information, see [MS-ADTS] section 3.1.1.2.3 and [MS-DRSR] section 5.15.

```
cn: ms-DS-IntId
ldapDisplayName: msDS-IntId
attributeId: 1.2.840.113556.1.4.1716
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bc60096a-1b47-4b30-8877-602c93f56532
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.341 Attribute msDS-IsCompliant

This attribute is used to determine if the object is compliant with company policies.

```
cn: ms-DS-Is-Compliant
ldapDisplayName: msDS-IsCompliant
attributeId: 1.2.840.113556.1.4.2314
attributeSyntax: 2.5.5.8
oMSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 59527d0f-b7c0-4ce2-a1dd-71cef6963292
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.342 Attribute msDS-IsDomainFor

This attribute specifies a back link for ms-DS-Has-Domain-NCs. For a partition root object, it identifies which Active Directory instances hold that partition as their primary domain.

```
cn: ms-DS-Is-Domain-For
ldapDisplayName: msDS-IsDomainFor
attributeId: 1.2.840.113556.1.4.1933
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: ff155a2a-44e5-4de0-8318-13a58988de4f
systemOnly: TRUE
searchFlags: 0
linkID: 2027
```

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.343 Attribute msDS-IsEnabled

This attribute is used to enable or disable the user-device relationship.

```
cn: ms-DS-Is-Enabled
ldapDisplayName: msDS-IsEnabled
attributeId: 1.2.840.113556.1.4.2248
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 22a95c0e-1f83-4c82-94ce-bea688cfc871
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
showInAdvancedViewOnly: TRUE
```

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

2.344 Attribute msDS-IsFullReplicaFor

This attribute specifies back link for ms-Ds-Has-Full-Replica-NCs. For a partition root object, it identifies which Active Directory instances hold that partition as a full replica.

```
cn: ms-DS-Is-Full-Replica-For
ldapDisplayName: msDS-IsFullReplicaFor
attributeId: 1.2.840.113556.1.4.1932
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: c8bc72e0-a6b4-48f0-94a5-fd76a88c9987
systemOnly: TRUE
searchFlags: 0
linkID: 2105
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.345 Attribute msDS-isGC

For an Active Directory instance, this attribute identifies the state of the global catalog (GC) on the directory system agent (DSA).

```
cn: ms-DS-isGC
ldapDisplayName: msDS-isGC
attributeId: 1.2.840.113556.1.4.1959
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 1df5cf33-0fe5-499e-90e1-e94b42718a46
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
```

```
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.346 Attribute msDS-IsManaged

This attribute is used to indicate that the device is managed by an on-premises mobile device manager.

```
cn: ms-DS-IsManaged
ldapDisplayName: msDS-IsManaged
attributeId: 1.2.840.113556.1.4.2270
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 60686ace-6c27-43de-a4e5-f00c2f8d3309
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.347 Attribute msDS-IsPartialReplicaFor

This attribute specifies a back link for has-Partial-Replica-NCs. For a partition root object, it identifies which Active Directory instances hold that partition as a partial replica.

```
cn: ms-DS-Is-Partial-Replica-For
ldapDisplayName: msDS-IsPartialReplicaFor
attributeId: 1.2.840.113556.1.4.1934
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 37c94ff6-c6d4-498f-b2f9-c6f7f8647809
systemOnly: TRUE
searchFlags: 0
linkID: 75
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.348 Attribute msDS-IsPossibleValuesPresent

This attribute identifies whether msDS-ClaimPossibleValues on a linked resource property has a value or does not have a value.

```
cn: ms-DS-Is-Possible-Values-Present
ldapDisplayName: msDS-IsPossibleValuesPresent
attributeId: 1.2.840.113556.1.4.2186
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
systemOnly: TRUE
searchFlags: 0
schemaIdGuid: 6fabdcda-8c53-204f-b1a4-9df0c67c1eb4
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

```
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.349 Attribute msDS-IsPrimaryComputerFor

This is the back link attribute for msDS-IsPrimaryComputer.

```
cn: ms-DS-Is-Primary-Computer-For
ldapDisplayName: msDS-IsPrimaryComputerFor
attributeId: 1.2.840.113556.1.4.2168
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: 998c06ac-3f87-444e-a5df-11b03dc8a50c
linkID: 2187
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.350 Attribute msDS-isRODC

For an Active Directory instance, this attribute identifies whether the DSA is a read-only DSA.

```
cn: ms-DS-isRODC
ldapDisplayName: msDS-isRODC
attributeId: 1.2.840.113556.1.4.1960
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: a8e8aa23-3e67-4af1-9d7a-2f1a1d633ac9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.351 Attribute msDS-IssuerCertificates

This attribute specifies the keys used to sign certificates that have been issued by the Registration Service.

```
cn: ms-DS-Issuer-Certificates
ldapDisplayName: msDS-IssuerCertificates
attributeId: 1.2.840.113556.1.4.2240
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 6b3d6fda-0893-43c4-89fb-1fb52a6616a9
rangeLower: 1
rangeUpper: 65536
searchFlags: fCONFIDENTIAL
systemOnly: FALSE
showInAdvancedViewOnly: TRUE
```

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.352 Attribute msDS-IssuerPublicCertificates

This attribute specifies the public keys of the key pairs used to sign the certificates that have been issued by the device registration service.

```
cn: ms-DS-Issuer-Public-Certificates
ldapDisplayName: msDS-IssuerPublicCertificates
attributeId: 1.2.840.113556.1.4.2269
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: b5f1edfe-b4d2-4076-ab0f-6148342b0bf6
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 65536
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.353 Attribute msDS-IsUsedAsResourceSecurityAttribute

For a resource property, this attribute indicates whether it is being used as a secure attribute.

```
cn: ms-DS-Is-Used-As-Resource-Security-Attribute
ldapDisplayName: msDS-IsUsedAsResourceSecurityAttribute
attributeId: 1.2.840.113556.1.4.2095
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
schemaIdGuid: 51c9f89d-4730-468d-a2b5-1d493212d17e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.354 Attribute msDS-IsUserCachableAtRodc

For a read-only Active Directory instance, this attribute identifies whether the specified user's secrets can be cached.

```
cn: ms-DS-Is-User-Cachable-At-Rodc
ldapDisplayName: msDS-IsUserCachableAtRodc
attributeId: 1.2.840.113556.1.4.2025
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: fe01245a-341f-4556-951f-48c033a89050
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.355 (Added Section) Attribute msDS-JetDBPageSize

This attribute advertises what Jet database page size the DSA supports.

```
cn: ms-DS-JetDB-Page-Size
ldapDisplayName: msDS-JetDBPageSize
attributeId: 1.2.840.113556.1.4.2378
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: da823a60-41f0-4c89-942b-2b70a6c003d4
systemOnly: TRUE
searchFlags: 0
systemFlags: SCHEMA BASE OBJECT
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2025.

2.356 (Added Section) Attribute msDS-JetGetRecordSize3

This attribute provides the result of the JetGetRecordSize3 API call which gives you details about the records size in the database.

```
cn: ms-DS-JetGetRecordSize3
ldapDisplayName: msDS-JetGetRecordSize3
attributeId: 1.2.840.113556.1.4.2377
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 59a1892f-719e-47a3-95a5-8633dd38ba78
systemOnly: FALSE
searchFlags: 0
systemFlags: ATTR IS CONSTRUCTED | SCHEMA BASE OBJECT
systemOnly: FALSE
```

Version-Specific Behavior: First implemented on Windows Server 2025.

2.357 Attribute msDS-KeyApproximateLastLogonTimeStamp

The approximate time this key was last used in a logon operation.

```
cn: ms-DS-Key-Approximate-Last-Logon-Time-Stamp
ldapDisplayName: msDS-KeyApproximateLastLogonTimeStamp
attributeId: 1.2.840.113556.1.4.2323
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 649ac98d-9b9a-4d41-af6b-f616f2a62e4a
searchFlags: fATTINDEX
systemOnly: FALSE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: FALSE
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.358 msDS-KeyCredentialLink

This attribute contains key material and usage information.

```
cn: ms-DS-Key-Credential-Link
ldapDisplayName: msDS-KeyCredentialLink
attributeID: 1.2.840.113556.1.4.2328
attributeSyntax: 2.5.5.7
omObjectClass: 1.2.840.113556.1.1.1.11
oMSyntax: 127
isSingleValued: FALSE
schemaIdGuid: 5b47d60f-6090-40b2-9f37-2a4de88f3063
systemOnly: FALSE
searchFlags: 0
linkId: 2220
systemFlags: FLAG_SCHEMA_BASE_OBJECT
attributeSecurityGUID: 9b026da6-0d3c-465c-8bee-5199d7165cba
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.359 msDS-KeyCredentialLink-BL

This attribute is the backlink for msDS-KeyCredentialLink.

```
cn: ms-DS-Key-Credential-Link-BL
ldapDisplayName: msDS-KeyCredentialLink-BL
attributeID: 1.2.840.113556.1.4.2329
attributeSyntax: 2.5.5.1
omObjectClass: 1.3.12.2.1011.28.0.714
oMSyntax: 127
isSingleValued: FALSE
schemaIdGuid: 938ad788-225f-4eee-93b9-ad24a159e1db
systemOnly: FALSE
searchFlags: 0
linkId: 2221
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.360 Attribute msDS-KeyId

This attribute contains a key identifier.

```
cn: ms-DS-Key-Id
ldapDisplayName: msDS-KeyId
attributeId: 1.2.840.113556.1.4.2315
attributeSyntax: 2.5.5.10
oMSyntax: 4
isSingleValued: TRUE
schemaIdGuid: c294f84b-2fad-4b71-be4c-9fc5701f60ba
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
RangeLower: 0
RangeUpper: 132096
isMemberOfPartialAttributeSet: FALSE
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.361 Attribute msDS-KeyMaterial

This attribute contains key material.

```
cn: ms-DS-Key-Material
ldapDisplayName: msDS-KeyMaterial
attributeId: 1.2.840.113556.1.4.2316
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: a12e0e9f-dedb-4f31-8f21-1311b958182f
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
RangeLower: 0
RangeUpper: 132096
isMemberOfPartialAttributeSet: FALSE
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.362 Attribute msDS-KeyPrincipal

This attribute specifies the principal to which a key object applies.

```
cn: ms-DS-Key-Principal
ldapDisplayName: msDS-KeyPrincipal
attributeId: 1.2.840.113556.1.4.2318
attributeSyntax: 2.5.5.1
omObjectClass: 1.3.12.2.1011.28.0.714
omSyntax: 127
isSingleValued: TRUE
schemaIdGuid: bd61253b-9401-4139-a693-356fc400f3ea
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
linkID: 2218
isMemberOfPartialAttributeSet: FALSE
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.363 Attribute msDS-KeyPrincipalBL

This attribute is the backlink for msDS-KeyPrincipal.

```
cn: ms-DS-Key-Principal-BL
ldapDisplayName: msDS-KeyPrincipalBL
attributeId: 1.2.840.113556.1.4.2319
attributeSyntax: 2.5.5.1
omObjectClass: 1.3.12.2.1011.28.0.714
omSyntax: 127
isSingleValued: FALSE
schemaIdGuid: d1328fbc-8574-4150-881d-0b1088827878
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
linkID: 2219
```

```
isMemberOfPartialAttributeSet: TRUE
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.364 Attribute msDS-KeyUsage

This attribute identifies the usage scenario for the key.

```
cn: ms-DS-Key-Usage
ldapDisplayName: msDS-KeyUsage
attributeId: 1.2.840.113556.1.4.2317
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: de71b44c-29ba-4597-9eca-c3348ace1917
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
RangeLower: 0
RangeUpper: 132096
isMemberOfPartialAttributeSet: FALSE
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.365 Attribute msDS-KeyVersionNumber

For a given user, computer, or built-in account, this attribute specifies the Kerberos version number of
the current key for that account. The Kerberos key version number for trusts is stored in the trusted
domain object (TDO) whose object class is trustedDomain.

```
cn: ms-DS-KeyVersionNumber
ldapDisplayName: msDS-KeyVersionNumber
attributeId: 1.2.840.113556.1.4.1782
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: c523e9c0-33b5-4ac8-8923-b57b927f42f6
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.366 Attribute msDS-KrbTgtLink

For a computer, this attribute identifies the user object (krbtgt) that acts as the domain or secondary
domain master secret. This depends on which domain or secondary domain the computer resides in.

```
cn: ms-DS-KrbTgt-Link
ldapDisplayName: msDS-KrbTgtLink
attributeId: 1.2.840.113556.1.4.1923
attributeSyntax: 2.5.5.1
omSyntax: 127
```

```
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 778ff5c9-6f4e-4b74-856a-d68383313910
systemOnly: FALSE
searchFlags: 0
linkID: 2100
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.367 Attribute msDS-KrbTgtLinkBl

This attribute specifies the back link for ms-DS-KrbTgt-Link. For a user object (krbtgt) that acts as a domain or secondary domain master secret, it identifies which computers are in that domain or secondary domain.

```
cn: ms-DS-KrbTgt-Link-BL
ldapDisplayName: msDS-KrbTgtLinkBl
attributeId: 1.2.840.113556.1.4.1931
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 5dd68c41-bfdf-438b-9b5d-39d9618bf260
systemOnly: TRUE
searchFlags: 0
linkID: 2101
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.368 Attribute msDS-LastFailedInteractiveLogonTime

This attribute specifies the time that an incorrect password was presented during a Ctrl-Alt-Del logon.

```
cn: ms-DS-Last-Failed-Interactive-Logon-Time
ldapDisplayName: msDS-LastFailedInteractiveLogonTime
attributeId: 1.2.840.113556.1.4.1971
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: c7e7dafa-10c3-4b8b-9acd-54f11063742e
systemOnly: TRUE
searchFlags: 0
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.369 Attribute msDS-LastKnownRDN

This attribute holds the original relative distinguished name (RDN) of a deleted object.

```
cn: ms-DS-Last-Known-RDN
ldapDisplayName: msDS-LastKnownRDN
attributeId: 1.2.840.113556.1.4.2067
```

```
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 8ab15858-683e-466d-877f-d640e1f9a611
systemOnly: TRUE
searchFlags: 0
rangeLower: 1
rangeUpper: 255
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.370 Attribute msDS-LastSuccessfulInteractiveLogonTime

This attribute specifies the time that the correct password was presented during a Ctrl-Alt-Del logon.

```
cn: ms-DS-Last-Successful-Interactive-Logon-Time
ldapDisplayName: msDS-LastSuccessfulInteractiveLogonTime
attributeId: 1.2.840.113556.1.4.1970
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 011929e6-8b5d-4258-b64a-00b0b4949747
systemOnly: TRUE
searchFlags: 0
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.371 Attribute msDS-LocalEffectiveDeletionTime

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

```
cn: ms-DS-Local-Effective-Deletion-Time
ldapDisplayName: msDS-LocalEffectiveDeletionTime
attributeId: 1.2.840.113556.1.4.2059
attributeSyntax: 2.5.5.11
omSyntax: 24
isSingleValued: TRUE
schemaIdGuid: 94f2800c-531f-4aeb-975d-48ac39fd8ca4
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT|FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.372 Attribute msDS-LocalEffectiveRecycleTime

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

```
cn: ms-DS-Local-Effective-Recycle-Time
ldapDisplayName: msDS-LocalEffectiveRecycleTime
attributeId: 1.2.840.113556.1.4.2060
attributeSyntax: 2.5.5.11
omSyntax: 24
```

```
isSingleValued: TRUE
schemaIdGuid: 4ad6016b-b0d2-4c9b-93b6-5964b17b968c
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT|FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.373 Attribute msDS-LockoutDuration

This attribute specifies the lockout duration for locked-out user accounts.

```
cn: ms-DS-Lockout-Duration
ldapDisplayName: msDS-LockoutDuration
attributeId: 1.2.840.113556.1.4.2018
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeUpper: 0
schemaIdGuid: 421f889a-472e-4fe4-8eb9-e1d0bc6071b2
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.374 Attribute msDS-LockoutThreshold

This attribute specifies the lockout threshold for lockout of user accounts.

```
cn: ms-DS-Lockout-Threshold
ldapDisplayName: msDS-LockoutThreshold
attributeId: 1.2.840.113556.1.4.2019
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 65535
schemaIdGuid: b8c8c35e-4a19-4a95-99d0-69fe4446286f
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.375 Attribute msDS-LockoutObservationWindow

This attribute specifies the observation window for lockout of user accounts.

```
cn: ms-DS-Lockout-Observation-Window
ldapDisplayName: msDS-LockoutObservationWindow
attributeId: 1.2.840.113556.1.4.2017
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
systemOnly: FALSE
```

```
searchFlags: 0
rangeUpper: 0
schemaIdGuid: b05bda89-76af-468a-b892-1be55558ecc8
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.376 Attribute msDS-LogonTimeSyncInterval

This attribute specifies the frequency (in days) with which the last logon time for a user/computer, recorded in the lastLogonTimestamp attribute, is updated.

```
cn: ms-DS-Logon-Time-Sync-Interval
ldapDisplayName: msDS-LogonTimeSyncInterval
attributeId: 1.2.840.113556.1.4.1784
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ad7940f8-e43a-4a42-83bc-d688e59ea605
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.377 (Added Section) Attribute msDS-ManagedAccountPrecededByLink

This attribute is the forward link from a delegated managed service account to a service account object.

```
cn: ms-DS-Managed-Account-Preceded-By-Link
ldapDisplayName: msDS-ManagedAccountPrecededByLink
attributeID: 1.2.840.113556.1.4.2375;
attributeSyntax: 2.5.5.1
isSingleValued: TRUE
linkID: 2224
oMObjectClass: 1.3.12.2.1011.28.0.714
oMSyntax: 127
schemaIDGUID: a0945b2b-57a2-43bd-b327-4d112a4e8bd1
systemOnly: FALSE
searchFlags: 0
showInAdvancedViewOnly: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2025.

2.378 (Added Section) Attribute msDS-ManagedAccountPrecededByLinkBL

This attribute is the back link from a delegated managed service account to a service account object.

```
cn: ms-DS-Managed-Account-Preceded-By-LinkBL
ldapDisplayName: msDS-ManagedAccountPrecededByLinkBL
attributeID: 1.2.840.113556.1.4.2376
```

```
attributeSyntax: 2.5.5.1
isSingleValued: TRUE
linkID: 2225
oMObjectClass: 1.3.12.2.1011.28.0.714
oMSyntax: 127
schemaIDGUID: 94774af0-5355-402c-9c9a-12470c873e4a
systemOnly: FALSE
searchFlags: 0
showInAdvancedViewOnly: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2025.

2.379 Attribute msDS-ManagedPassword

This attribute is the managed password data for a group MSA.

```
cn: ms-DS-ManagedPassword
ldapDisplayName: msDS-ManagedPassword
attributeId: 1.2.840.113556.1.4.2196
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
schemaIdGuid: e362ed86-b728-0842-b27d-2dea7a9df218
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.380 Attribute msDS-ManagedPasswordId

This attribute is the identifier for the current managed password data for a group MSA.

```
cn: ms-DS-ManagedPasswordId
ldapDisplayName: msDS-ManagedPasswordId
attributeId: 1.2.840.113556.1.4.2197
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: TRUE
searchFlags: 0
rangeUpper: 1024
schemaIdGuid: 0e78295a-c6d3-0a40-b491-d62251ffa0a6
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.381 Attribute msDS-ManagedPasswordInterval

This attribute is used to retrieve the number of days before a managed password is automatically changed for a group MSA.

```
cn: ms-DS-ManagedPasswordInterval
ldapDisplayName: msDS-ManagedPasswordInterval
attributeId: 1.2.840.113556.1.4.2199
attributeSyntax: 2.5.5.9
```

```
omSyntax: 2
isSingleValued: TRUE
systemOnly: TRUE
searchFlags: 0
schemaIdGuid: f8758ef7-ac76-8843-a2ee-a26b4dcaf409
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.382 Attribute msDS-ManagedPasswordPreviousId

This attribute is the identifier for the previous managed password data for a group MSA.

```
cn: ms-DS-ManagedPasswordPreviousId
ldapDisplayName: msDS-ManagedPasswordPreviousId
attributeId: 1.2.840.113556.1.4.2198
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: TRUE
searchFlags: 0
rangeUpper: 1024
schemaIdGuid: d0d62131-2d4a-d04f-99d9-1c63646229a4
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.383 Attribute msDs-masteredBy

This attribute specifies the back link for ms-DS-Has-Master-NCs. For more information, see [MS-ADTS].

```
cn: ms-DS-Mastered-By
ldapDisplayName: msDs-masteredBy
attributeId: 1.2.840.113556.1.4.1837
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 60234769-4819-4615-a1b2-49d2f119acb5
systemOnly: TRUE
searchFlags: 0
linkID: 2037
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.384 Attribute msDS-MaximumPasswordAge

This attribute specifies the maximum age of passwords for user accounts.

```
cn: ms-DS-Maximum-Password-Age
ldapDisplayName: msDS-MaximumPasswordAge
attributeId: 1.2.840.113556.1.4.2011
```

```
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeUpper: 0
schemaIdGuid: fdd337f5-4999-4fce-b252-8ff9c9b43875
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.385 Attribute msDS-MaximumRegistrationInactivityPeriod

This attribute specifies the maximum number of days used to detect inactivity of registration objects.

```
cn: ms-DS-Maximum-Registration-Inactivity-Period
ldapDisplayName: msDS-MaximumRegistrationInactivityPeriod
attributeId: 1.2.840.113556.1.4.2242
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 0a5caa39-05e6-49ca-b808-025b936610e7
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.386 Attribute msDs-MaxValues

This attribute specifies the maximum values allowed for a given object. Its use is dependent on the object with which it is associated.

```
cn: ms-DS-Max-Values
ldapDisplayName: msDs-MaxValues
attributeId: 1.2.840.113556.1.4.1842
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: d1e169a4-ebe9-49bf-8fcb-8aef3874592d
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.387 Attribute msds-memberOfTransitive

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

```
cn: ms-DS-Is-Member-Of-DL-Transitive
ldapDisplayName: msds-memberOfTransitive
attributeId: 1.2.840.113556.1.4.2236
```

```
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 862166b6-c941-4727-9565-48bfff2941de
systemOnly: TRUE
searchFlags: fBASEONLY
systemFlags: FLAG_ATTR_NOT_REPLICATED | FLAG_ATTR_IS_CONSTRUCTED |
 FLAG_ATTR_IS_OPERATIONAL | FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.388 Attribute msDS-MembersForAzRole

This attribute is used by the Authorization Manager feature of Windows Server 2003 and is not necessary for Active Directory to function. It specifies the list of member application groups or users linked to Az-Role objects.

```
cn: ms-DS-Members-For-Az-Role
ldapDisplayName: msDS-MembersForAzRole
attributeId: 1.2.840.113556.1.4.1806
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: cbf7e6cd-85a4-4314-8939-8bfe80597835
systemOnly: FALSE
searchFlags: 0
linkID: 2016
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.389 Attribute msDS-MembersForAzRoleBL

This attribute specifies the back link from a member application group or user to the Az-Role objects that link to it. It is used by the Authorization Manager feature of Windows Server 2003 and is not necessary for Active Directory to function.

```
cn: ms-DS-Members-For-Az-Role-BL
ldapDisplayName: msDS-MembersForAzRoleBL
attributeId: 1.2.840.113556.1.4.1807
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: ececcd20-a7e0-4688-9ccf-02ece5e287f5
systemOnly: TRUE
searchFlags: 0
linkID: 2017
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.390 Attribute msDS-MembersOfResourcePropertyList

For a resource property list object, this multivalued link attribute points to one or more resource property objects.

```
cn: ms-DS-Members-Of-Resource-Property-List
ldapDisplayName: msDS-MembersOfResourcePropertyList
attributeId: 1.2.840.113556.1.4.2103
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: 4d371c11-4cad-4c41-8ad2-b180ab2bd13c
linkID: 2180
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.391 Attribute msDS-MembersOfResourcePropertyListBL

This attribute is the back link for msDS-MembersOfResourcePropertyList. For a resource property object, this attribute references the resource property list object that it is a member of.

```
cn: ms-DS-Members-Of-Resource-Property-List-BL
ldapDisplayName: msDS-MembersOfResourcePropertyListBL
attributeId: 1.2.840.113556.1.4.2104
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: 7469b704-edb0-4568-a5a5-59f4862c75a7
linkID: 2181
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.392 Attribute msds-memberTransitive

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

```
cn: ms-DS-Member-Transitive
ldapDisplayName: msds-memberTransitive
attributeId: 1.2.840.113556.1.4.2238
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: e215395b-9104-44d9-b894-399ec9e21dfc
systemOnly: TRUE
searchFlags: fBASEONLY
systemFlags: FLAG_ATTR_NOT_REPLICATED | FLAG_ATTR_IS_CONSTRUCTED |
 FLAG_ATTR_IS_OPERATIONAL | FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.393 Attribute msDS-MinimumPasswordAge

This attribute specifies the minimum age of passwords for user accounts.

```
cn: ms-DS-Minimum-Password-Age
ldapDisplayName: msDS-MinimumPasswordAge
attributeId: 1.2.840.113556.1.4.2012
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeUpper: 0
schemaIdGuid: 2a74f878-4d9c-49f9-97b3-6767d1cbd9a3
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.394 Attribute msDS-MinimumPasswordLength

This attribute specifies the minimum length of passwords for user accounts.

```
cn: ms-DS-Minimum-Password-Length
ldapDisplayName: msDS-MinimumPasswordLength
attributeId: 1.2.840.113556.1.4.2013
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 255
schemaIdGuid: b21b3439-4c3a-441c-bb5f-08f20e9b315e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.395 Attribute msDS-NC-Replica-Locations

This attribute specifies the list of servers that are the replica set for the corresponding non-domain NC. For more information, see [MS-ADTS] section 6.1.1.2.1.1.5.

```
cn: ms-DS-NC-Replica-Locations
ldapDisplayName: msDS-NC-Replica-Locations
attributeId: 1.2.840.113556.1.4.1661
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 97de9615-b537-46bc-ac0f-10720f3909f3
systemOnly: FALSE
searchFlags: 0
linkID: 1044
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.396 Attribute msDS-NC-RO-Replica-Locations

This attribute specifies a linked attribute on a cross ref object for a partition. This attribute lists the DSA instances that host the partition in a read-only manner.

```
cn: ms-DS-NC-RO-Replica-Locations
ldapDisplayName: msDS-NC-RO-Replica-Locations
attributeId: 1.2.840.113556.1.4.1967
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 3df793df-9858-4417-a701-735a1ecebf74
systemOnly: FALSE
searchFlags: 0
linkID: 2114
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.397 Attribute msDS-NC-RO-Replica-Locations-BL

This attribute specifies a back link attribute for ms-DS-NC-RO-Replica-Locations.

```
cn: ms-DS-NC-RO-Replica-Locations-BL
ldapDisplayName: msDS-NC-RO-Replica-Locations-BL
attributeId: 1.2.840.113556.1.4.1968
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: f547511c-5b2a-44cc-8358-992a88258164
systemOnly: FALSE
searchFlags: 0
linkID: 2115
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.398 Attribute msDS-NcType

This attribute specifies a bit field that maintains information about aspects of an NC replica that are relevant to replication.

```
cn: ms-DS-NC-Type
ldapDisplayName: msDS-NcType
attributeId: 1.2.840.113556.1.4.2024
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
systemOnly: TRUE
searchFlags: 0
schemaIdGuid: 5a2eacd7-cc2b-48cf-9d9a-b6f1a0024de9
showInAdvancedViewOnly: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

```
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.399 Attribute msDS-NCReplCursors

This attribute specifies a list of past and present replication partners for a particular machine, and how up-to-date that machine is with each of them. For more information, see [MS-DRSR].

```
cn: ms-DS-NC-Repl-Cursors
ldapDisplayName: msDS-NCReplCursors
attributeId: 1.2.840.113556.1.4.1704
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 8a167ce4-f9e8-47eb-8d78-f7fe80abb2cc
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.400 Attribute msDS-NCReplInboundNeighbors

This attribute specifies replication partners for this NC. For more information, see [MS-DRSR].

```
cn: ms-DS-NC-Repl-Inbound-Neighbors
ldapDisplayName: msDS-NCReplInboundNeighbors
attributeId: 1.2.840.113556.1.4.1705
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 9edba85a-3e9e-431b-9b1a-a5b6e9eda796
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.401 Attribute msDS-NCReplOutboundNeighbors

This attribute specifies replication partners for this NC. For more information, see [MS-DRSR].

```
cn: ms-DS-NC-Repl-Outbound-Neighbors
ldapDisplayName: msDS-NCReplOutboundNeighbors
attributeId: 1.2.840.113556.1.4.1706
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 855f2ef5-a1c5-4cc4-ba6d-32522848b61f
systemOnly: FALSE
searchFlags: 0
```

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.402 Attribute msDS-NeverRevealGroup

For an Active Directory instance, this attribute identifies the security group whose users never have their secrets disclosed to that instance.

```
cn: ms-DS-Never-Reveal-Group
ldapDisplayName: msDS-NeverRevealGroup
attributeId: 1.2.840.113556.1.4.1926
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 15585999-fd49-4d66-b25d-eeb96aba8174
systemOnly: FALSE
searchFlags: 0
linkID: 2106
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

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

This attribute specifies the common names of the nonstandard classes that can be added to a nonsecurity group through the Active Directory Users and Computers snap-in (ADUC MMC). For more information, see [MSDN-ACL].

```
cn: ms-DS-Non-Security-Group-Extra-Classes
ldapDisplayName: msDS-Non-Security-Group-Extra-Classes
attributeId: 1.2.840.113556.1.4.1689
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 2de144fc-1f52-486f-bdf4-16fcc3084e54
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.404 Attribute msDS-NonMembers

This attribute holds non-security members of a group and is used for Microsoft Exchange Server distribution lists.

```
cn: ms-DS-Non-Members
ldapDisplayName: msDS-NonMembers
attributeId: 1.2.840.113556.1.4.1793
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
```

```
isSingleValued: FALSE
schemaIdGuid: cafcb1de-f23c-46b5-adf7-1e64957bd5db
systemOnly: FALSE
searchFlags: 0
linkID: 2014
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.405 Attribute msDS-NonMembersBL

This attribute specifies the back link from a nonmember group or a user to the nonmember groups that link to it. Groups of this type are not used by Active Directory, and this attribute is not necessary for Active Directory to function. The protocol does not define a format beyond that required by the schema.

```
cn: ms-DS-Non-Members-BL
ldapDisplayName: msDS-NonMembersBL
attributeId: 1.2.840.113556.1.4.1794
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 2a8c68fc-3a7a-4e87-8720-fe77c51cbe74
systemOnly: TRUE
searchFlags: 0
linkID: 2015
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.406 Attribute msDS-ObjectReference

For a given object, this attribute specifies a link to another object. Its use is dependent on the object with which it is associated.

```
cn: ms-DS-Object-Reference
ldapDisplayName: msDS-ObjectReference
attributeId: 1.2.840.113556.1.4.1840
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 638ec2e8-22e7-409c-85d2-11b21bee72de
systemOnly: FALSE
searchFlags: 0
linkID: 2038
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.407 Attribute msDS-ObjectReferenceBL

For a given object, this attribute specifies a back link to another object. Its use is dependent on the object with which it is associated.

```
cn: ms-DS-Object-Reference-BL
ldapDisplayName: msDS-ObjectReferenceBL
attributeId: 1.2.840.113556.1.4.1841
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 2b702515-c1f7-4b3b-b148-c0e4c6ceecb4
systemOnly: TRUE
searchFlags: 0
linkID: 2039
systemFlags: FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.408 Attribute msDS-ObjectSoa

This attribute is used to identify the source of authority of an object.

```
cn: ms-DS-Object-SOA
ldapDisplayName: msDS-ObjectSoa
attributeId: 1.2.840.113556.1.4.2353
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 34f6bdf5-2e79-4c3b-8e14-3d93b75aab89
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
rangeLower: 1
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.409 Attribute msDS-OIDToGroupLink

On an object of class msPKI-Enterprise-Oid, this attribute identifies the group object corresponding to the issuance policy represented by this object.

```
cn: ms-DS-OIDToGroup-Link
ldapDisplayName: msDS-OIDToGroupLink
attributeId: 1.2.840.113556.1.4.2051
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: f9c9a57c-3941-438d-bebf-0edaf2aca187
systemOnly: FALSE
searchFlags: 0
linkID: 2164
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.410 Attribute msDS-OIDToGroupLinkBl

This attribute is the back link attribute for ms-DS-OIDToGroupLink; it identifies the issuance policy, represented by an object of class msPKI-Enterprise-Oid, that is mapped to this group.

```
cn: ms-DS-OIDToGroup-Link-BL
ldapDisplayName: msDS-OIDToGroupLinkBl
attributeId: 1.2.840.113556.1.4.2052
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 1a3d0d20-5844-4199-ad25-0f5039a76ada
systemOnly: TRUE
searchFlags: 0
linkID: 2165
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.411 Attribute msDS-OperationsForAzRole

This attribute is used by the Authorization Manager feature of Windows Server 2003 and is not necessary for Active Directory to function. It specifies a list of operations.

```
cn: ms-DS-Operations-For-Az-Role
ldapDisplayName: msDS-OperationsForAzRole
attributeId: 1.2.840.113556.1.4.1812
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 93f701be-fa4c-43b6-bc2f-4dbea718ffab
systemOnly: FALSE
searchFlags: 0
linkID: 2022
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.412 Attribute msDS-OperationsForAzRoleBL

This attribute specifies a back link from Az-Operation to the Az-Role objects that link to it. It is used by the Authorization Manager feature of Windows Server 2003 and is not necessary for Active Directory to function.

```
cn: ms-DS-Operations-For-Az-Role-BL
ldapDisplayName: msDS-OperationsForAzRoleBL
attributeId: 1.2.840.113556.1.4.1813
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: f85b6228-3734-4525-b6b7-3f3bb220902c
systemOnly: TRUE
searchFlags: 0
linkID: 2023
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.413 Attribute msDS-OperationsForAzTask

This attribute is used by the Authorization Manager feature of Windows Server 2003 and is not necessary for Active Directory to function. It specifies a list of operations linked to Az-Task.

```
cn: ms-DS-Operations-For-Az-Task
ldapDisplayName: msDS-OperationsForAzTask
attributeId: 1.2.840.113556.1.4.1808
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 1aacb436-2e9d-44a9-9298-ce4debeb6ebf
systemOnly: FALSE
searchFlags: 0
linkID: 2018
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.414 Attribute msDS-OperationsForAzTaskBL

This attribute specifies a back link from Az-Operation to the Az-Task object(s) that link to it. It is used by the Authorization Manager Feature of Windows Server 2003 and is not necessary for Active Directory functioning.

```
cn: ms-DS-Operations-For-Az-Task-BL
ldapDisplayName: msDS-OperationsForAzTaskBL
attributeId: 1.2.840.113556.1.4.1809
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: a637d211-5739-4ed1-89b2-88974548bc59
systemOnly: TRUE
searchFlags: 0
linkID: 2019
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.415 Attribute msDS-OptionalFeatureFlags

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

```
cn: ms-DS-Optional-Feature-Flags
ldapDisplayName: msDS-OptionalFeatureFlags
attributeId: 1.2.840.113556.1.4.2063
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 8a0560c1-97b9-4811-9db7-dc061598965b
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.416 Attribute msDS-OptionalFeatureGUID

This attribute stores the GUID of an optional feature.

```
cn: ms-DS-Optional-Feature-GUID
ldapDisplayName: msDS-OptionalFeatureGUID
attributeId: 1.2.840.113556.1.4.2062
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 9b88bda8-dd82-4998-a91d-5f2d2baf1927
systemOnly: TRUE
searchFlags: 0
rangeLower: 16
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.417 Attribute msDS-Other-Settings

For a given object, this attribute specifies any configurable setting in the "Name, Value" format. Its use is dependent on the object with which it is associated.

```
cn: ms-DS-Other-Settings
ldapDisplayName: msDS-Other-Settings
attributeId: 1.2.840.113556.1.4.1621
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 79d2f34c-9d7d-42bb-838f-866b3e4400e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.418 Attribute msDS-parentdistname

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

```
cn: ms-DS-Parent-Dist-Name
ldapDisplayName: msDS-parentdistname
attributeId: 1.2.840.113556.1.4.2203
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIDGUID: b918fe7d-971a-f404-9e21-9261abec970b
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_ATTR_NOT_REPLICATED | FLAG_ATTR_IS_CONSTRUCTED |
 FLAG_ATTR_IS_OPERATIONAL | FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.419 Attribute msDS-PasswordComplexityEnabled

This attribute specifies password complexity status for user accounts.

```
cn: ms-DS-Password-Complexity-Enabled
ldapDisplayName: msDS-PasswordComplexityEnabled
attributeId: 1.2.840.113556.1.4.2015
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
schemaIdGuid: db68054b-c9c3-4bf0-b15b-0fb52552a610
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.420 Attribute msDS-PasswordHistoryLength

This attribute specifies the length of password history for user accounts.

```
cn: ms-DS-Password-History-Length
ldapDisplayName: msDS-PasswordHistoryLength
attributeId: 1.2.840.113556.1.4.2014
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 65535
schemaIdGuid: fed81bb7-768c-4c2f-9641-2245de34794d
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.421 Attribute msDS-PasswordReversibleEncryptionEnabled

This attribute specifies password-reversible encryption status for user accounts.

```
cn: ms-DS-Password-Reversible-Encryption-Enabled
ldapDisplayName: msDS-PasswordReversibleEncryptionEnabled
attributeId: 1.2.840.113556.1.4.2016
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
schemaIdGuid: 75ccdd8f-af6c-4487-bb4b-69e4d38a959c
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.422 Attribute msDS-PasswordSettingsPrecedence

This attribute specifies the precedence of password settings.

```
cn: ms-DS-Password-Settings-Precedence
ldapDisplayName: msDS-PasswordSettingsPrecedence
attributeId: 1.2.840.113556.1.4.2023
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
schemaIdGuid: 456374ac-1f0a-4617-93cf-bc55a7c9d341
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.423 Attribute msDS-PerUserTrustQuota

For a given user, this attribute specifies a quota for creating trusted domain objects (TDOs).

```
cn: MS-DS-Per-User-Trust-Quota
ldapDisplayName: msDS-PerUserTrustQuota
attributeId: 1.2.840.113556.1.4.1788
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: d161adf0-ca24-4993-a3aa-8b2c981302e8
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.424 Attribute msDS-PerUserTrustTombstonesQuota

For a given user, this attribute specifies a quota for deleting TDOs.

```
cn: MS-DS-Per-User-Trust-Tombstones-Quota
ldapDisplayName: msDS-PerUserTrustTombstonesQuota
attributeId: 1.2.840.113556.1.4.1790
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 8b70a6c6-50f9-4fa3-a71e-1ce03040449b
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.425 Attribute msDS-PhoneticCompanyName

This attribute contains the phonetic company name where the person works.

```
cn: ms-DS-Phonetic-Company-Name
ldapDisplayName: msDS-PhoneticCompanyName
attributeId: 1.2.840.113556.1.4.1945
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 5bd5208d-e5f4-46ae-a514-543bc9c47659
systemOnly: FALSE
searchFlags: fATTINDEX | fANR
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
mapiID: 35985
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
```

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

2.426 Attribute msDS-PhoneticDepartment

This attribute contains the phonetic department name where the person works.

```
cn: ms-DS-Phonetic-Department
ldapDisplayName: msDS-PhoneticDepartment
attributeId: 1.2.840.113556.1.4.1944
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 6cd53daf-003e-49e7-a702-6fa896e7a6ef
systemOnly: FALSE
searchFlags: fATTINDEX | fANR
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
mapiID: 35984
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
```

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

2.427 Attribute msDS-PhoneticDisplayName

This attribute contains the phonetic display name of an object. In the absence of a phonetic display name, the existing display name is used.

```
cn: ms-DS-Phonetic-Display-Name
ldapDisplayName: msDS-PhoneticDisplayName
attributeId: 1.2.840.113556.1.4.1946
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: e21a94e4-2d66-4ce5-b30d-0ef87a776ff0
systemOnly: FALSE
searchFlags: fATTINDEX | fANR
rangeLower: 0
rangeUpper: 256
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
```

```
mapiID: 35986
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.428 Attribute msDS-PhoneticFirstName

This attribute contains the phonetic given name or first name of the person.

```
cn: ms-DS-Phonetic-First-Name
ldapDisplayName: msDS-PhoneticFirstName
attributeId: 1.2.840.113556.1.4.1942
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 4b1cba4e-302f-4134-ac7c-f01f6c797843
systemOnly: FALSE
searchFlags: fATTINDEX | fANR
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
mapiID: 35982
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
```

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

2.429 Attribute msDS-PhoneticLastName

This attribute contains the phonetic last name of the person.

```
cn: ms-DS-Phonetic-Last-Name
ldapDisplayName: msDS-PhoneticLastName
attributeId: 1.2.840.113556.1.4.1943
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: f217e4ec-0836-4b90-88af-2f5d4bbda2bc
systemOnly: FALSE
searchFlags: fATTINDEX | fANR
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
mapiID: 35983
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
```

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

2.430 Attribute msDS-Preferred-GC-Site

This attribute specifies a preferred global catalog server and is used during group expansion. For more information, see [MS-SAMR].

```
cn: ms-DS-Preferred-GC-Site
ldapDisplayName: msDS-Preferred-GC-Site
attributeId: 1.2.840.113556.1.4.1444
```

```
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: d921b50a-0ab2-42cd-87f6-09cf83a91854
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.431 Attribute msDS-preferredDataLocation

This attribute indicates the preferred data location.

```
cn: ms-DS-Preferred-Data-Location
lDAPDisplayName: msDS-preferredDataLocation
attributeID: 1.2.840.113556.1.4.2366
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
schemaIDGUID: fa0c8ade-4c94-4610-bace-180efdee2140
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 10
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
showInAdvancedViewOnly: FALSE
```

Version-Specific Behavior: First implemented on Windows Server v1803 operating system.

2.432 Attribute msDS-PrimaryComputer

For a user or group object, this attribute identifies the primary computers.

```
cn: ms-DS-Primary-Computer
ldapDisplayName: msDS-PrimaryComputer
attributeId: 1.2.840.113556.1.4.2167
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: fATTINDEX
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: a13df4e2-dbb0-4ceb-828b-8b2e143e9e81
linkID: 2186
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.433 Attribute msDS-PrincipalName

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

```
cn: ms-DS-Principal-Name
ldapDisplayName: msDS-PrincipalName
attributeId: 1.2.840.113556.1.4.1865
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 564e9325-d057-c143-9e3b-4f9e5ef46f93
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.434 Attribute msDS-PromotionSettings

For a computer, this attribute contains an XML string to be used for delegated DSA promotion.

```
cn: ms-DS-Promotion-Settings
ldapDisplayName: msDS-PromotionSettings
attributeId: 1.2.840.113556.1.4.1962
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: c881b4e2-43c0-4ebe-b9bb-5250aa9b434c
systemOnly: TRUE
searchFlags: 0
rangeUpper: 65536
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.435 Attribute msDS-PSOApplied

This attribute specifies a password settings object. When present on a user or group object, it identifies the password settings object applied to that user or group object.

```
cn: ms-DS-PSO-Applied
ldapDisplayName: msDS-PSOApplied
attributeId: 1.2.840.113556.1.4.2021
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: FALSE
systemOnly: TRUE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: 5e6cf031-bda8-43c8-aca4-8fee4127005b
linkID: 2119
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.436 Attribute msDS-PSOAppliesTo

This attribute specifies the links to objects that this password settings object applies to.

```
cn: ms-DS-PSO-Applies-To
```

```
ldapDisplayName: msDS-PSOAppliesTo
attributeId: 1.2.840.113556.1.4.2020
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: 64c80f48-cdd2-4881-a86d-4e97b6f561fc
linkID: 2118
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.437 Attribute msDS-QuotaAmount

This attribute specifies the assigned quota in terms of the number of objects owned in the database. For more information on how Active Directory uses this attribute, refer to [MS-ADTS].

```
cn: ms-DS-Quota-Amount
ldapDisplayName: msDS-QuotaAmount
attributeId: 1.2.840.113556.1.4.1845
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: fbb9a00d-3a8c-4233-9cf9-7189264903a1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.438 Attribute msDS-QuotaEffective

For a given user, this attribute specifies the cumulative quota based on multiple policies within a given NC. For more information about this attribute, see [MS-ADTS] section 3.1.1.4.5.22.

```
cn: ms-DS-Quota-Effective
ldapDisplayName: msDS-QuotaEffective
attributeId: 1.2.840.113556.1.4.1848
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 6655b152-101c-48b4-b347-e1fcebc60157
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.439 Attribute msDS-QuotaTrustee

For a given set of quotas, this attribute specifies the SID for a security principal who is constrained by the quota policy. For more information on how Active Directory uses this attribute, refer to [MS-ADTS].

```
cn: ms-DS-Quota-Trustee
ldapDisplayName: msDS-QuotaTrustee
attributeId: 1.2.840.113556.1.4.1844
attributeSyntax: 2.5.5.17
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 16378906-4ea5-49be-a8d1-bfd41dff4f65
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 28
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.440 Attribute msDS-QuotaUsed

For a given user, this attribute specifies the quota currently consumed. For more information about this attribute, see [MS-ADTS] section 3.1.1.4.5.23.

```
cn: ms-DS-Quota-Used
ldapDisplayName: msDS-QuotaUsed
attributeId: 1.2.840.113556.1.4.1849
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: b5a84308-615d-4bb7-b05f-2f1746aa439f
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.441 Attribute msDS-RegisteredOwner

This attribute is a single-valued binary attribute containing the primary SID that references the first user to register the device. The value is not removed during de-registration, but could be managed by an administrator.

```
cn: ms-DS-Registered-Owner
ldapDisplayName: msDS-RegisteredOwner
attributeId: 1.2.840.113556.1.4.2258
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 617626e9-01eb-42cf-991f-ce617982237e
systemOnly: FALSE
searchFlags: fATTINDEX
```

```
systemFlags: FLAG_ATTR_REQ_PARTIAL_SET_MEMBER | FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
showInAdvancedViewOnly: TRUE
```

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

2.442 Attribute msDS-RegisteredUsers

This attribute contains the list of users that have registered the device. Users in this list have access to all of the features provided by the "Company Portal" application, and they have single-sign-on access to company resources.

```
cn: ms-DS-Registered-Users
ldapDisplayName: msDS-RegisteredUsers
attributeId: 1.2.840.113556.1.4.2263
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 0449160c-5a8e-4fc8-b052-01c0f6e48f02
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_ATTR_REQ_PARTIAL_SET_MEMBER | FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
showInAdvancedViewOnly: TRUE
```

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

2.443 Attribute msDS-RegistrationQuota

This attribute specifies the policy used to limit the number of registrations allowed for a single user.

```
cn: ms-DS-Registration-Quota
ldapDisplayName: msDS-RegistrationQuota
attributeId: 1.2.840.113556.1.4.2241
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ca3286c2-1f64-4079-96bc-e62b610e730f
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.444 Attribute msDS-ReplAttributeMetaData

This attribute specifies a list of metadata for each replicated attribute. The metadata indicates who last changed the attribute. For more information, see [MS-DRSR].

```
cn: ms-DS-Repl-Attribute-Meta-Data
ldapDisplayName: msDS-ReplAttributeMetaData
attributeId: 1.2.840.113556.1.4.1707
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: d7c53242-724e-4c39-9d4c-2df8c9d66c7a
systemOnly: FALSE
```

```
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

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

This attribute specifies the delay between changes to directory objects and notification of the first replica partner for an NC.

```
cn: ms-DS-Replication-Notify-First-DSA-Delay
ldapDisplayName: msDS-Replication-Notify-First-DSA-Delay
attributeId: 1.2.840.113556.1.4.1663
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 85abd4f4-0a89-4e49-bdec-6f35bb2562ba
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

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

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

```
cn: ms-DS-Replication-Notify-Subsequent-DSA-Delay
ldapDisplayName: msDS-Replication-Notify-Subsequent-DSA-Delay
attributeId: 1.2.840.113556.1.4.1664
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: d63db385-dd92-4b52-b1d8-0d3ecc0e86b6
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.447 Attribute msDS-ReplicationEpoch

This attribute specifies the epoch under which all the DCs are replicating. For more information, see [MS-DRSR].

```
cn: ms-DS-ReplicationEpoch
ldapDisplayName: msDS-ReplicationEpoch
attributeId: 1.2.840.113556.1.4.1720
attributeSyntax: 2.5.5.9
```

```
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 08e3aa79-eb1c-45b5-af7b-8f94246c8e41
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.448 Attribute msDS-ReplValueMetaData

This attribute specifies a list of metadata for each value of an attribute. The metadata indicates who last changed the value. For more information, see [MS-DRSR].

```
cn: ms-DS-Repl-Value-Meta-Data
ldapDisplayName: msDS-ReplValueMetaData
attributeId: 1.2.840.113556.1.4.1708
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 2f5c8145-e1bd-410b-8957-8bfa81d5acfd
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.449 Attribute msDS-ReplValueMetaDataExt

This attribute contains no values on any object.

```
cn: ms-DS-Repl-Value-Meta-Data-Ext
ldapDisplayName: msDS-ReplValueMetaDataExt
attributeId: 1.2.840.113556.1.4.2235
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 1e02d2ef-44ad-46b2-a67d-9fd18d780bca
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_ATTR_IS_CONSTRUCTED | FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.450 Attribute msDS-RequiredDomainBehaviorVersion

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

```
cn: ms-DS-Required-Domain-Behavior-Version
ldapDisplayName: msDS-RequiredDomainBehaviorVersion
```

```
attributeId: 1.2.840.113556.1.4.2066
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: eadd3dfe-ae0e-4cc2-b9b9-5fe5b6ed2dd2
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.451 Attribute msDS-RequiredForestBehaviorVersion

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

```
cn: ms-DS-Required-Forest-Behavior-Version
ldapDisplayName: msDS-RequiredForestBehaviorVersion
attributeId: 1.2.840.113556.1.4.2079
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 4beca2e8-a653-41b2-8fee-721575474bec
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.452 Attribute msDS-ResultantPSO

This attribute specifies the effective password policy applied to this object.

```
cn: ms-DS-Resultant-PSO
ldapDisplayName: msDS-ResultantPSO
attributeId: 1.2.840.113556.1.4.2022
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: TRUE
systemOnly: TRUE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: b77ea093-88d0-4780-9a98-911f8e8b1dca
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.453 Attribute msDS-RetiredReplNCSignatures

This attribute specifies information about NCs that are no longer held on this computer. For more information, see [MS-DRSR].

```
cn: ms-DS-Retired-Repl-NC-Signatures
ldapDisplayName: msDS-RetiredReplNCSignatures
attributeId: 1.2.840.113556.1.4.1826
attributeSyntax: 2.5.5.10
omSyntax: 4
```

```
isSingleValued: TRUE
schemaIdGuid: d5b35506-19d6-4d26-9afb-11357ac99b5e
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.454 Attribute msDS-RevealedDSAs

This attribute specifies the back link for ms-DS-Revealed-Users. For a user, it identifies which Active Directory instances hold that user's secret.

```
cn: ms-DS-Revealed-DSAs
ldapDisplayName: msDS-RevealedDSAs
attributeId: 1.2.840.113556.1.4.1930
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 94f6f2ac-c76d-4b5e-b71f-f332c3e93c22
systemOnly: TRUE
searchFlags: 0
linkID: 2103
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.455 Attribute msDS-RevealedList

For an Active Directory instance, this attribute identifies the user objects whose secrets have been disclosed to that instance.

```
cn: ms-DS-Revealed-List
ldapDisplayName: msDS-RevealedList
attributeId: 1.2.840.113556.1.4.1940
attributeSyntax: 2.5.5.14
omSyntax: 127
omObjectClass: 1.2.840.113556.1.1.1.12
isSingleValued: FALSE
schemaIdGuid: cbdad11c-7fec-387b-6219-3a0627d9af81
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.456 Attribute msDS-RevealedListBL

This attribute specifies the back link attribute for ms-DS-Revealed-List.

```
cn: ms-DS-Revealed-List-BL
ldapDisplayName: msDS-RevealedListBL
```

```
attributeId: 1.2.840.113556.1.4.1975
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: aa1c88fd-b0f6-429f-b2ca-9d902266e808
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.457 Attribute msDS-RevealedUsers

For an Active Directory instance, this attribute identifies the user objects whose secrets have been disclosed to that instance.

```
cn: ms-DS-Revealed-Users
ldapDisplayName: msDS-RevealedUsers
attributeId: 1.2.840.113556.1.4.1924
attributeSyntax: 2.5.5.7
omSyntax: 127
omObjectClass: 1.2.840.113556.1.1.1.11
isSingleValued: FALSE
schemaIdGuid: 185c7821-3749-443a-bd6a-288899071adb
systemOnly: TRUE
searchFlags: 0
linkID: 2102
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.458 Attribute msDS-RevealOnDemandGroup

For an Active Directory instance, this attribute identifies the security group whose users can have their secrets disclosed to that instance.

```
cn: ms-DS-Reveal-OnDemand-Group
ldapDisplayName: msDS-RevealOnDemandGroup
attributeId: 1.2.840.113556.1.4.1928
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 303d9f4a-1dd6-4b38-8fc5-33afe8c988ad
systemOnly: FALSE
searchFlags: 0
linkID: 2110
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.459 Attribute msDS-RIDPoolAllocationEnabled

This attribute indicates whether RID pool allocation is enabled.

```
cn: ms-DS-RID-Pool-Allocation-Enabled
ldapDisplayName: msDS-RIDPoolAllocationEnabled
attributeId: 1.2.840.113556.1.4.2213
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 24977c8c-c1b7-3340-b4f6-2b375eb711d7
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.460 Attribute msDs-Schema-Extensions

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

```
cn: ms-ds-Schema-Extensions
ldapDisplayName: msDs-Schema-Extensions
attributeId: 1.2.840.113556.1.4.1440
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: b39a61be-ed07-4cab-9a4a-4963ed0141e1
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.461 Attribute msDS-SDReferenceDomain

This attribute specifies the domain to be used for default security descriptor translation for a non-domain NC. For more information, see [MS-WPO].

```
cn: ms-DS-SD-Reference-Domain
ldapDisplayName: msDS-SDReferenceDomain
attributeId: 1.2.840.113556.1.4.1711
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 4c51e316-f628-43a5-b06b-ffb695fcb4f3
systemOnly: FALSE
searchFlags: 0
linkID: 2000
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.462 Attribute msDS-SecondaryKrbTgtNumber

For a user object (krbtgt) acting as a secondary domain master secret, this attribute identifies the protocol identification number associated with the secondary domain.

```
cn: ms-DS-Secondary-KrbTgt-Number
ldapDisplayName: msDS-SecondaryKrbTgtNumber
attributeId: 1.2.840.113556.1.4.1929
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: aa156612-2396-467e-ad6a-28d23fdb1865
systemOnly: TRUE
searchFlags: fATTINDEX
rangeLower: 65536
rangeUpper: 65536
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.463 Attribute msDS-Security-Group-Extra-Classes

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

```
cn: ms-DS-Security-Group-Extra-Classes
ldapDisplayName: msDS-Security-Group-Extra-Classes
attributeId: 1.2.840.113556.1.4.1688
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 4f146ae8-a4fe-4801-a731-f51848a4f4e4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.464 Attribute msDS-ServiceAllowedNTLMNetworkAuthentication

This attribute is used to determine if a service is allowed to authenticate using NTLM authentication.

```
cn: ms-DS-Service-Allowed-NTLM-Network-Authentication
ldapDisplayName: msDS-ServiceAllowedNTLMNetworkAuthentication
attributeId: 1.2.840.113556.1.4.2349
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
systemOnly: FALSE
schemaIdGuid: 278947b9-5222-435e-96b7-1503858c2b48
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.465 Attribute msDS-ServiceAllowedToAuthenticateFrom

This attribute is used to determine whether a service has permission to authenticate from a computer.

```
cn: ms-DS-Service-Allowed-To-Authenticate-From
ldapDisplayName: msDS-ServiceAllowedToAuthenticateFrom
```

```
attributeId: 1.2.840.113556.1.4.2283
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 97da709a-3716-4966-b1d1-838ba53c3d89
systemOnly: FALSE
searchFlags: 0
RangeLower: 0
RangeUpper: 132096
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.466 Attribute msDS-ServiceAllowedToAuthenticateTo

This attribute is used to determine whether a service has permission to authenticate to a service.

```
cn: ms-DS-Service-Allowed-To-Authenticate-To
ldapDisplayName: msDS-ServiceAllowedToAuthenticateTo
attributeId: 1.2.840.113556.1.4.2282
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: f2973131-9b4d-4820-b4de-0474ef3b849f
systemOnly: FALSE
searchFlags: 0
RangeLower: 0
RangeUpper: 132096
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.467 Attribute msDS-ServiceAuthNPolicy

This attribute specifies which AuthNPolicy is applied to services assigned to this silo object.

```
cn: ms-DS-Service-AuthN-Policy
ldapDisplayName: msDS-ServiceAuthNPolicy
attributeId: 1.2.840.113556.1.4.2293
attributeSyntax: 2.5.5.1
omObjectClass: 1.3.12.2.1011.28.0.714
omSyntax: 127
isSingleValued: TRUE
schemaIdGuid: 2a6a6d95-28ce-49ee-bb24-6d1fc01e3111
systemOnly: FALSE
searchFlags: 0
linkID: 2210
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.468 Attribute msDS-ServiceAuthNPolicyBL

This attribute is the backlink for msDS-ServiceAuthNPolicy.

```
cn: ms-DS-Service-AuthN-Policy-BL
ldapDisplayName: msDS-ServiceAuthNPolicyBL
attributeId: 1.2.840.113556.1.4.2294
attributeSyntax: 2.5.5.1
```

```
omObjectClass: 1.3.12.2.1011.28.0.714
omSyntax: 127
isSingleValued: FALSE
schemaIdGuid: 2c1128ec-5aa2-42a3-b32d-f0979ca9fcd2
systemOnly: TRUE
searchFlags: 0
linkID: 2211
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.469 Attribute msDS-ServiceTGTLifetime

This attribute specifies the maximum age of a Kerberos TGT issued to a service in units of 10^(-7) seconds.

```
cn: ms-DS-Service-TGT-Lifetime
ldapDisplayName: msDS-ServiceTGTLifetime
attributeId: 1.2.840.113556.1.4.2284
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 5dfe3c20-ca29-407d-9bab-8421e55eb75c
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.470 Attribute msDS-Settings

This attribute specifies settings for a given object. Its use is dependent on the object with which it is associated.

```
cn: ms-DS-Settings
ldapDisplayName: msDS-Settings
attributeId: 1.2.840.113556.1.4.1697
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 0e1b47d7-40a3-4b48-8d1b-4cac0c1cdf21
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1000000
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.471 Attribute msDS-ShadowPrincipalSid

This attribute contains the SID of a principal from an external forest.

```
cn: ms-DS-Shadow-Principal-Sid
ldapDisplayName: msDS-ShadowPrincipalSid
attributeID: 1.2.840.113556.1.4.2324
attributeSyntax: 2.5.5.17
oMSyntax: 4
isSingleValued: TRUE
schemaIDGUID: 1dcc0722-aab0-4fef-956f-276fe19de107
systemOnly: FALSE
```

```
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.472 Attribute msDS-SiteName

For an Active Directory instance, this attribute identifies the site name that contains the DSA.

```
cn: ms-DS-SiteName
ldapDisplayName: msDS-SiteName
attributeId: 1.2.840.113556.1.4.1961
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 98a7f36d-3595-448a-9e6f-6b8965baed9c
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.473 Attribute msDS-Site-Affinity

This attribute specifies site affinity and is used during group expansion. For more information, see [MS-SAMR].

```
cn: ms-DS-Site-Affinity
ldapDisplayName: msDS-Site-Affinity
attributeId: 1.2.840.113556.1.4.1443
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: c17c5602-bcb7-46f0-9656-6370ca884b72
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.474 Attribute msDS-SourceAnchor

The msDS-SourceAnchor attribute defines a unique, immutable identifier for the object in the authoritative directory. This attribute is reserved for future use.

```
cn: ms-DS-Source-Anchor
ldapDisplayName: msDS-SourceAnchor
attributeId: 1.2.840.113556.1.4.2352
attributeSyntax: 2.5.5.12
oMSyntax: 64
isSingleValued: TRUE
schemaIdGuid: b002f407-1340-41eb-bca0-bd7d938e25a9
systemOnly: FALSE
```

```
searchFlags: fPDNTATTINDEX | fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
rangeLower: 1
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.475 Attribute msDS-SourceObjectDN

This attribute specifies a string representation of the DN of the object in another forest that has a relationship to this object. The details of the relationship are defined by the objects.

```
cn: ms-DS-Source-Object-DN
ldapDisplayName: msDS-SourceObjectDN
attributeId: 1.2.840.113556.1.4.1879
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 773e93af-d3b4-48d4-b3f9-06457602d3d0
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 10240
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.476 Attribute msDS-SPNSuffixes

This attribute specifies the suffixes of DNS host names used by servers in the forest. These DNS suffixes are shared with other forests that have cross-forest trust with this forest.

```
cn: ms-DS-SPN-Suffixes
ldapDisplayName: msDS-SPNSuffixes
attributeId: 1.2.840.113556.1.4.1715
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 789ee1eb-8c8e-4e4c-8cec-79b31b7617b5
systemOnly: FALSE
searchFlags: 0
rangeUpper: 255
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.477 Attribute msDS-StrongNTLMPolicy

This attribute specifies policy options for NTLM secrets with strong entropy.

```
cn: ms-DS-Strong-NTLM-Policy
ldapDisplayName: msDS-StrongNTLMPolicy
attributeId: 1.2.840.113556.1.4.2350
attributeSyntax: 2.5.5.9
omSyntax: 2
```

```
isSingleValued: TRUE
systemOnly: FALSE
schemaIdGuid: aacd2170-482a-44c6-b66e-42c2f66a285c
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.478 (Added Section) Attribute msDS-SupersededManagedAccountLink

This attribute is the forward link from a service account to a delegated managed service account object

```
cn: ms-DS-Superseded-Managed-Account-Link
ldapDisplayName: : msDS-SupersededManagedAccountLink
attributeID: 1.2.840.113556.1.4.2373
attributeSyntax: 2.5.5.1
isSingleValued: TRUE
linkID: 2222
oMObjectClass: 1.3.12.2.1011.28.0.714
oMSyntax: 127
schemaIDGUID: 3752e002-43be-48c8-b3ca-2cb2fffbc8a1
systemOnly: FALSE
searchFlags: 0
showInAdvancedViewOnly: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2025.

2.479 (Added Section) Attribute msDS-SupersededManagedAccountLinkBL

This attribute is the forward link from a service account to a delegated managed service account object.

```
cn: ms-DS-Superseded-Managed-Account-LinkBL
ldapDisplayName: : msDS-SupersededManagedAccountLinkBL
attributeID: 1.2.840.113556.1.4.2374
attributeSyntax: 2.5.5.1
isSingleValued: TRUE
linkID: 2223
oMObjectClass: 1.3.12.2.1011.28.0.714
oMSyntax: 127
schemaIDGUID: fa05730a-9efd-4bba-a4a6-1c9e54ef57d5
systemOnly: FALSE
searchFlags: 0
showInAdvancedViewOnly: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2025.

2.480 (Added Section) Attribute msDS-SupersededServiceAccountState

This attribute is used to track whether a service account has been superseded by a Delegated Managed Service Account.

```
cn: ms-DS-Superseded-Service-Account-State
ldapDisplayName: msDS-SupersededServiceAccountState
```

```
    attributeId: 1.2.840.113556.1.4.237
    attributeSyntax: 2.5.5.9
    omSyntax: 10
    isSingleValued: TRUE
    schemaIdGuid: a4693096-a4c3-4ecd-b8cb-73cd6398b7a2
    systemOnly: FALSE
    searchFlags: 0
    showInAdvancedViewOnly: TRUE
    systemOnly: FALSE
    systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2025.

2.481 Attribute msDS-SupportedEncryptionTypes

This attribute specifies the encryption algorithms supported by user, computer, or trust accounts. The Key Distribution Center (KDC) uses this information while generating a service ticket for this account. Services and computers can automatically update this attribute on their respective accounts in Active Directory, and therefore need write access to this attribute.

```
cn: ms-DS-Supported-Encryption-Types
ldapDisplayName: msDS-SupportedEncryptionTypes
attributeId: 1.2.840.113556.1.4.1963
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 20119867-1d04-4ab7-9371-cfc3d5df0afd
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.482 Attribute msDS-SyncServerUrl

This attribute stores information about the sync server (in URL format) that hosts the user's sync folder.

```
cn: ms-DS-SyncServerUrl
ldapDisplayName: msDS-SyncServerUrl
AttributeID: 1.2.840.113556.1.4.2276
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: b7acc3d2-2a74-4fa4-ac25-e63fe8b61218
SystemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 1
rangeUpper: 512
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: FALSE
```

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

2.483 Attribute msDS-TasksForAzRole

This attribute is used by the Authorization Manager feature of Windows Server 2003 and is not necessary for Active Directory to function. It specifies a list of tasks for Az-Role.

```
cn: ms-DS-Tasks-For-Az-Role
ldapDisplayName: msDS-TasksForAzRole
attributeId: 1.2.840.113556.1.4.1814
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 35319082-8c4a-4646-9386-c2949d49894d
systemOnly: FALSE
searchFlags: 0
linkID: 2024
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.484 Attribute msDS-TasksForAzRoleBL

This attribute specifies a back link from Az-Task to Az-Role objects linking to it. It is used by the Authorization Manager feature of Windows Server 2003 and is not necessary for Active Directory to function.

```
cn: ms-DS-Tasks-For-Az-Role-BL
ldapDisplayName: msDS-TasksForAzRoleBL
attributeId: 1.2.840.113556.1.4.1815
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: a0dcd536-5158-42fe-8c40-c00a7ad37959
systemOnly: TRUE
searchFlags: 0
linkID: 2025
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.485 Attribute msDS-TasksForAzTask

This attribute is used by the Authorization Manager feature of Windows Server 2003 and is not necessary for Active Directory to function. It specifies a list of tasks linked to Az-Task.

```
cn: ms-DS-Tasks-For-Az-Task
ldapDisplayName: msDS-TasksForAzTask
attributeId: 1.2.840.113556.1.4.1810
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: b11c8ee2-5fcd-46a7-95f0-f38333f096cf
systemOnly: FALSE
searchFlags: 0
linkID: 2020
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.486 Attribute msDS-TasksForAzTaskBL

This attribute specifies a back link from Az-Task to the Az-Task objects linking to it. It is used by the Authorization Manager feature of Windows Server 2003 and is not necessary for Active Directory to function.

```
cn: ms-DS-Tasks-For-Az-Task-BL
ldapDisplayName: msDS-TasksForAzTaskBL
attributeId: 1.2.840.113556.1.4.1811
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: df446e52-b5fa-4ca2-a42f-13f98a526c8f
systemOnly: TRUE
searchFlags: 0
linkID: 2021
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.487 Attribute msDS-TDOEgressBL

This attribute is the back link to the TDO egress rules link on an object.

```
cn: ms-DS-TDO-Egress-BL
ldapDisplayName: msDS-TDOEgressBL
attributeId: 1.2.840.113556.1.4.2194
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: FALSE
systemOnly: TRUE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: d5006229-9913-2242-8b17-83761d1e0e5b
linkID: 2193
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.488 Attribute msDS-TDOIngressBL

This attribute is the back link to the TDO ingress rules link on an object.

```
cn: ms-DS-TDO-Ingress-BL
ldapDisplayName: msDS-TDOIngressBL
attributeId: 1.2.840.113556.1.4.2193
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: FALSE
systemOnly: TRUE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: 5a5661a1-97c6-544b-8056-e430fe7bc554
linkID: 2191
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

```
    schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.489 Attribute msds-tokenGroupNames

This attribute contains the distinguished names of security groups that the principal is directly or indirectly a member of.

```
    cn: ms-DS-Token-Group-Names
    ldapDisplayName: msds-tokenGroupNames
    attributeId: 1.2.840.113556.1.4.2345
    attributeSyntax: 2.5.5.1
    omSyntax: 127
    omObjectClass: 1.3.12.2.1011.28.0.714
    isSingleValued: FALSE
    systemOnly: TRUE
    schemaIdGuid: 65650576-4699-4fc9-8d18-26e0cd0137a6
    attributeSecurityGuid: 037088f8-0ae1-11d2-b422-00a0c968f939
    searchFlags: fBASEONLY
    systemFlags: FLAG_ATTR_NOT_REPLICATED | FLAG_ATTR_IS_CONSTRUCTED |
     FLAG_ATTR_IS_OPERATIONAL | FLAG_SCHEMA_BASE_OBJECT
    showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.490 Attribute msds-tokenGroupNamesGlobalAndUniversal

This attribute contains the distinguished names of global and universal security groups the principal is directly or indirectly a member of.

```
    cn: ms-DS-Token-Group-Names-Global-And-Universal
    ldapDisplayName: msds-tokenGroupNamesGlobalAndUniversal
    attributeId: 1.2.840.113556.1.4.2346
    attributeSyntax: 2.5.5.1
    omSyntax: 127
    omObjectClass: 1.3.12.2.1011.28.0.714
    isSingleValued: FALSE
    systemOnly: TRUE
    schemaIdGuid: fa06d1f4-7922-4aad-b79c-b2201f54417c
    attributeSecurityGuid: 037088f8-0ae1-11d2-b422-00a0c968f939
    searchFlags: fBASEONLY
    systemFlags: FLAG_ATTR_NOT_REPLICATED | FLAG_ATTR_IS_CONSTRUCTED |
     FLAG_ATTR_IS_OPERATIONAL | FLAG_SCHEMA_BASE_OBJECT
    showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.491 Attribute msds-tokenGroupNamesNoGCAcceptable

This attribute contains the distinguished names of security groups that the principal is directly or indirectly a member of as reported by the local DC.

```
    cn: ms-DS-Token-Group-Names-No-GC-Acceptable
    ldapDisplayName: msds-tokenGroupNamesNoGCAcceptable
    attributeId: 1.2.840.113556.1.4.2347
    attributeSyntax: 2.5.5.1
    omSyntax: 127
```

```
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
systemOnly: TRUE
schemaIdGuid: 523fc6c8-9af4-4a02-9cd7-3dea129eeb27
attributeSecurityGuid: 037088f8-0ae1-11d2-b422-00a0c968f939
searchFlags: fBASEONLY
systemFlags: FLAG_ATTR_NOT_REPLICATED | FLAG_ATTR_IS_CONSTRUCTED |
 FLAG_ATTR_IS_OPERATIONAL | FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.492 Attribute msDS-TombstoneQuotaFactor

This attribute specifies the percentage factor by which tombstone object count is reduced for the purpose of quota accounting. ("Tombstoned" objects are objects that have been deleted but not yet removed from the directory.) For more information on how Active Directory uses this attribute, refer to [MS-ADTS].

```
cn: ms-DS-Tombstone-Quota-Factor
ldapDisplayName: msDS-TombstoneQuotaFactor
attributeId: 1.2.840.113556.1.4.1847
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 461744d7-f3b6-45ba-8753-fb9552a5df32
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 100
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.493 Attribute msDS-TopQuotaUsage

This attribute specifies the top quota users ordered by decreasing quota usage currently in the directory. For more information about this attribute, see [MS-ADTS] section 3.1.1.3.2.31.

```
cn: ms-DS-Top-Quota-Usage
ldapDisplayName: msDS-TopQuotaUsage
attributeId: 1.2.840.113556.1.4.1850
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 7b7cce4f-f1f5-4bb6-b7eb-23504af19e75
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.494 Attribute msDS-TransformationRules

This attribute specifies the transformation rules for cross-forest claims transformation.

```
cn: ms-DS-Transformation-Rules
ldapDisplayName: msDS-TransformationRules
attributeId: 1.2.840.113556.1.4.2189
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
schemaIdGuid: 55872b71-c4b2-3b48-ae51-4095f91ec600
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.495 Attribute msDS-TransformationRulesCompiled

This attribute is a blob containing compiled transformation rules.

```
cn: ms-DS-Transformation-Rules-Compiled
ldapDisplayName: msDS-TransformationRulesCompiled
attributeId: 1.2.840.113556.1.4.2190
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: TRUE
searchFlags: fCONFIDENTIAL
schemaIdGuid: 0bb49a10-536b-bc4d-a273-0bab0dd4bd10
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.496 Attribute msDS-TrustForestTrustInfo

This attribute specifies forest trust information (BLOB) that is used by the Active Directory system [MS-ADOD] for a trusted domain object (TDO). For more information about this attribute, see [MS-ADTS] section 6.1.6.9.3.

```
cn: ms-DS-Trust-Forest-Trust-Info
ldapDisplayName: msDS-TrustForestTrustInfo
attributeId: 1.2.840.113556.1.4.1702
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 29cc866e-49d3-4969-942e-1dbc0925d183
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.497 Attribute msDS-UpdateScript

This attribute stores an XML script that is generated during a domain rename operation.

```
cn: ms-DS-UpdateScript
ldapDisplayName: msDS-UpdateScript
attributeId: 1.2.840.113556.1.4.1721
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 146eb639-bb9f-4fc1-a825-e29e00c77920
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.498 Attribute msDS-User-Account-Control-Computed

This attribute specifies flags that control behavior of the user account. For more information, see [MS-ADTS] section 3.1.1.4.5.17.

```
cn: ms-DS-User-Account-Control-Computed
ldapDisplayName: msDS-User-Account-Control-Computed
attributeId: 1.2.840.113556.1.4.1460
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 2cc4b836-b63f-4940-8d23-ea7acf06af56
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: 4c164200-20c0-11d0-a768-00aa006e0529
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows Server 2003.

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

2.499 Attribute msDS-UserAllowedNTLMNetworkAuthentication

This attribute is used to determine if a user is allowed to authenticate using NTLM authentication.

```
cn: ms-DS-User-Allowed-NTLM-Network-Authentication
ldapDisplayName: msDS-UserAllowedNTLMNetworkAuthentication
attributeId: 1.2.840.113556.1.4.2348
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
systemOnly: FALSE
schemaIdGuid: 7ece040f-9327-4cdc-aad3-037adfe62639
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

Version-Specific Behavior: First implemented on Windows Server 2016.

2.500 Attribute msDS-UserAllowedToAuthenticateFrom

This attribute is used to determine whether a user has permission to authenticate from a computer.

```
cn: ms-DS-User-Allowed-To-Authenticate-From
ldapDisplayName: msDS-UserAllowedToAuthenticateFrom
attributeId: 1.2.840.113556.1.4.2278
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 2c4c9600-b0e1-447d-8dda-74902257bdb5
systemOnly: FALSE
searchFlags: 0
RangeLower: 0
RangeUpper: 132096
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.501 Attribute msDS-UserAllowedToAuthenticateTo

This attribute is used to determine whether a user has permission to authenticate to a service.

```
cn: ms-DS-User-Allowed-To-Authenticate-To
ldapDisplayName: msDS-UserAllowedToAuthenticateTo
attributeId: 1.2.840.113556.1.4.2277
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: de0caa7f-724e-4286-b179-192671efc664
systemOnly: FALSE
searchFlags: 0
RangeLower: 0
RangeUpper: 132096
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.502 Attribute msDS-UserAuthNPolicy

This attribute specifies which AuthNPolicy is applied to users assigned to this silo object.

```
cn: ms-DS-User-AuthN-Policy
ldapDisplayName: msDS-UserAuthNPolicy
attributeId: 1.2.840.113556.1.4.2289
attributeSyntax: 2.5.5.1
omObjectClass: 1.3.12.2.1011.28.0.714
omSyntax: 127
isSingleValued: TRUE
schemaIdGuid: cd26b9f3-d415-442a-8f78-7c61523ee95b
systemOnly: FALSE
searchFlags: 0
linkID: 2206
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.503 Attribute msDS-UserAuthNPolicyBL

This attribute is the backlink for msDS-UserAuthNPolicy.

```
cn: ms-DS-User-AuthN-Policy-BL
ldapDisplayName: msDS-UserAuthNPolicyBL
attributeId: 1.2.840.113556.1.4.2290
attributeSyntax: 2.5.5.1
omObjectClass: 1.3.12.2.1011.28.0.714
omSyntax: 127
isSingleValued: FALSE
schemaIdGuid: 2f17faa9-5d47-4b1f-977e-aa52fabe65c8
systemOnly: TRUE
searchFlags: 0
linkID: 2207
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.504 Attribute msDS-UserPasswordExpiryTimeComputed

This attribute contains the expiry time for the user's current password.

```
cn: ms-DS-User-Password-Expiry-Time-Computed
ldapDisplayName: msDS-UserPasswordExpiryTimeComputed
attributeId: 1.2.840.113556.1.4.1996
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: add5cf10-7b09-4449-9ae6-2534148f8a72
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: 4c164200-20c0-11d0-a768-00aa006e0529
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.505 Attribute msDS-UserTGTLifetime

This attribute specifies the maximum age of a Kerberos TGT issued to a user in units of 10^{-7} seconds.

```
cn: ms-DS-User-TGT-Lifetime
ldapDisplayName: msDS-UserTGTLifetime
attributeId: 1.2.840.113556.1.4.2279
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 8521c983-f599-420f-b9ab-b1222bdf95c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.506 Attribute msDS-USNLastSyncSuccess

The update sequence number (USN) at which the last successful replication synchronization occurred.

```
cn: ms-DS-USN-Last-Sync-Success
ldapDisplayName: msDS-USNLastSyncSuccess
attributeId: 1.2.840.113556.1.4.2055
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 31f7b8b6-c9f8-4f2d-a37b-58a823030331
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED | FLAG_ATTR_IS_OPERATIONAL
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.507 Attribute msDS-ValueTypeReference

This attribute is used to link a resource property object to its value type.

```
cn: ms-DS-Value-Type-Reference
ldapDisplayName: msDS-ValueTypeReference
attributeId: 1.2.840.113556.1.4.2187
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: TRUE
systemOnly: TRUE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: 78fc5d84-c1dc-3148-8984-58f792d41d3e
linkID: 2188
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.508 Attribute msDS-ValueTypeReferenceBL

This attribute is the back link for msDS-ValueTypeReference. It links a value type object back to resource properties.

```
cn: ms-DS-Value-Type-Reference-BL
ldapDisplayName: msDS-ValueTypeReferenceBL
attributeId: 1.2.840.113556.1.4.2188
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: FALSE
systemOnly: TRUE
searchFlags: 0
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: ab5543ad-23a1-3b45-b937-9b313d5474a8
linkID: 2189
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

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

2.509 Attribute msExchAssistantName

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

```
cn: ms-Exch-Assistant-Name
ldapDisplayName: msExchAssistantName
attributeId: 1.2.840.113556.1.2.444
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: a8df7394-c5ea-11d1-bbcb-0080c76670c0
searchFlags: 0
rangeLower: 1
rangeUpper: 256
mapiID: 14896
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.510 Attribute msExchHouseIdentifier

This attribute specifies a physical address for a contact in an Exchange Server address book.

```
cn: ms-Exch-House-Identifier
ldapDisplayName: msExchHouseIdentifier
attributeId: 1.2.840.113556.1.2.596
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: a8df7407-c5ea-11d1-bbcb-0080c76670c0
searchFlags: 0
rangeLower: 1
rangeUpper: 128
mapiID: 35924
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.511 Attribute msExchLabeledURI

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

```
cn: ms-Exch-LabeledURI
ldapDisplayName: msExchLabeledURI
attributeId: 1.2.840.113556.1.2.593
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 16775820-47f3-11d1-a9c3-0000f80367c1
searchFlags: 0
rangeLower: 1
rangeUpper: 1024
mapiID: 35921
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.512 Attribute msFRS-Hub-Member

This attribute specifies a value used by the File Replication Service.

```
cn: ms-FRS-Hub-Member
ldapDisplayName: msFRS-Hub-Member
attributeId: 1.2.840.113556.1.4.1693
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 5643ff81-35b6-4ca9-9512-baf0bd0a2772
searchFlags: 0
linkID: 1046
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.513 Attribute msFRS-Topology-Pref

This attribute specifies a value used by the File Replication Service.

```
cn: ms-FRS-Topology-Pref
ldapDisplayName: msFRS-Topology-Pref
attributeId: 1.2.840.113556.1.4.1692
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 92aa27e0-5c50-402d-9ec1-ee847def9788
searchFlags: 0
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.514 Attribute msFVE-KeyPackage

This attribute contains a volume's BitLocker encryption key secured by the corresponding recovery password. Full Volume Encryption (FVE) was the prerelease name for BitLocker Drive Encryption.

```
cn: ms-FVE-KeyPackage
ldapDisplayName: msFVE-KeyPackage
attributeId: 1.2.840.113556.1.4.1999
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
rangeUpper: 102400
schemaIdGuid: 1fd55ea8-88a7-47dc-8129-0daa97186a54
searchFlags: fRODCFilteredAttribute | fCONFIDENTIAL | fCOPY |
 fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.515 Attribute msFVE-RecoveryGuid

This attribute contains the GUID associated with a BitLocker recovery password. Full Volume Encryption (FVE) was the prerelease name for BitLocker Drive Encryption.

```
cn: ms-FVE-RecoveryGuid
```

```
ldapDisplayName: msFVE-RecoveryGuid
attributeId: 1.2.840.113556.1.4.1965
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: f76909bc-e678-47a0-b0b3-f86a0044c06d
searchFlags: fCOPY | fPRESERVEONDELETE | fPDNTATTINDEX | fATTINDEX
rangeUpper: 128
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
```

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

2.516 Attribute msFVE-RecoveryPassword

This attribute contains a password that can recover a BitLocker-encrypted volume. Full Volume Encryption (FVE) was the prerelease name for BitLocker Drive Encryption.

```
cn: ms-FVE-RecoveryPassword
ldapDisplayName: msFVE-RecoveryPassword
attributeId: 1.2.840.113556.1.4.1964
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
rangeUpper: 256
schemaIdGuid: 43061ac1-c8ad-4ccc-b785-2bfac20fc60a
searchFlags: fRODCFilteredAttribute | fCONFIDENTIAL | fCOPY |
 fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.517 Attribute msFVE-VolumeGuid

This attribute contains the GUID associated with a BitLocker-supported disk volume. Full Volume Encryption (FVE) was the prerelease name for BitLocker Drive Encryption.

```
cn: ms-FVE-VolumeGuid
ldapDisplayName: msFVE-VolumeGuid
attributeId: 1.2.840.113556.1.4.1998
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
searchFlags: fCOPY | fPRESERVEONDELETE | fPDNTATTINDEX | fATTINDEX
rangeUpper: 128
schemaIdGuid: 85e5a5cf-dcee-4075-9cfd-ac9db6a2f245
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: TRUE
```

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

2.518 Attribute msieee80211-Data

This attribute specifies the network configurations for wireless support.

```
cn: ms-ieee-80211-Data
ldapDisplayName: msieee80211-Data
attributeId: 1.2.840.113556.1.4.1821
attributeSyntax: 2.5.5.10
```

```
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 0e0d0938-2658-4580-a9f6-7a0ac7b566cb
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.519 Attribute msieee80211-DataType

This attribute specifies the network configurations for wireless support.

```
cn: ms-ieee-80211-Data-Type
ldapDisplayName: msieee80211-DataType
attributeId: 1.2.840.113556.1.4.1822
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 6558b180-35da-4efe-beed-521f8f48cafb
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.520 Attribute msieee80211-ID

This attribute specifies the network configurations for wireless support.

```
cn: ms-ieee-80211-ID
ldapDisplayName: msieee80211-ID
attributeId: 1.2.840.113556.1.4.1823
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 7f73ef75-14c9-4c23-81de-dd07a06f9e8b
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.521 Attribute msiFileList

For a given Active Directory domain, this attribute specifies a list of Microsoft installer files, such as the base MSI file (.msi) and MST transform files (.mst).

```
cn: Msi-File-List
ldapDisplayName: msiFileList
attributeId: 1.2.840.113556.1.4.671
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 7bfdcb7d-4807-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.522 Attribute msIIS-FTPDir

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

```
cn: ms-IIS-FTP-Dir
ldapDisplayName: msIIS-FTPDir
attributeId: 1.2.840.113556.1.4.1786
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 8a5c99e9-2230-46eb-b8e8-e59d712eb9ee
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 256
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.523 Attribute msIIS-FTPRoot

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

```
cn: ms-IIS-FTP-Root
ldapDisplayName: msIIS-FTPRoot
attributeId: 1.2.840.113556.1.4.1785
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 2a7827a4-1483-49a5-9d84-52e3812156b4
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 256
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.524 Attribute msImaging-HashAlgorithm

This attribute contains the name of the hash algorithm used to create the thumbprint hash for the Scan Repository/Secure Print device.

```
cn: ms-Imaging-Hash-Algorithm
ldapDisplayName: msImaging-HashAlgorithm
attributeId: 1.2.840.113556.1.4.2181
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeUpper: 64
schemaIdGuid: 8ae70db5-6406-4196-92fe-f3bb557520a7
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.525 Attribute msImaging-PSPIdentifier

This attribute contains the unique identifier for this PostScan Process.

```
cn: ms-Imaging-PSP-Identifier
ldapDisplayName: msImaging-PSPIdentifier
attributeId: 1.2.840.113556.1.4.2053
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 51583ce9-94fa-4b12-b990-304c35b18595
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.526 Attribute msImaging-PSPString

This attribute contains the XML sequence for this PostScan Process.

```
cn: ms-Imaging-PSP-String
ldapDisplayName: msImaging-PSPString
attributeId: 1.2.840.113556.1.4.2054
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 7b6760ae-d6ed-44a6-b6be-9de62c09ec67
searchFlags: 0
rangeUpper: 524288
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.527 Attribute msImaging-ThumbprintHash

This attribute contains a hash of the security certificate for the Scan Repository/Secure Print device.

```
cn: ms-Imaging-Thumbprint-Hash
ldapDisplayName: msImaging-ThumbprintHash
attributeId: 1.2.840.113556.1.4.2180
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1024
schemaIdGuid: 9cdfdbc5-0304-4569-95f6-c4f663fe5ae6
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.528 Attribute msiScript

For a given application, this attribute specifies the Microsoft Installer (MSI) script.

```
cn: Msi-Script
ldapDisplayName: msiScript
attributeId: 1.2.840.113556.1.4.814
```

```
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: d9e18313-8939-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.529 Attribute msiScriptName

For a given application, this attribute specifies the MSI script name.

```
cn: Msi-Script-Name
ldapDisplayName: msiScriptName
attributeId: 1.2.840.113556.1.4.845
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 96a7dd62-9118-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.530 Attribute msiScriptPath

For a given application, this attribute specifies the MSI script file path.

```
cn: Msi-Script-Path
ldapDisplayName: msiScriptPath
attributeId: 1.2.840.113556.1.4.15
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967937-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.531 Attribute msiScriptSize

For a given application, this attribute specifies the MSI script file size.

```
cn: Msi-Script-Size
ldapDisplayName: msiScriptSize
attributeId: 1.2.840.113556.1.4.846
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 96a7dd63-9118-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.532 Attribute msKds-CreateTime

This attribute contains the time when this root key was created.

```
cn: ms-Kds-CreateTime
ldapDisplayName: msKds-CreateTime
attributeId: 1.2.840.113556.1.4.2179
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fRODCFilteredAttribute | fCONFIDENTIAL
schemaIdGuid: ae18119f-6390-0045-b32d-97dbc701aef7
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.533 Attribute msKds-DomainID

This attribute holds the distinguished name of the domain controller that generated this root key.

```
cn: ms-Kds-DomainID
ldapDisplayName: msKds-DomainID
attributeId: 1.2.840.113556.1.4.2177
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fRODCFilteredAttribute | fCONFIDENTIAL
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: 96400482-cf07-e94c-90e8-f2efc4f0495e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.534 Attribute msKds-KDFAlgorithmID

This attribute contains the algorithm name of the key derivation function used to compute keys.

```
cn: ms-Kds-KDF-AlgorithmID
ldapDisplayName: msKds-KDFAlgorithmID
attributeId: 1.2.840.113556.1.4.2169
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fRODCFilteredAttribute | fCONFIDENTIAL
rangeUpper: 200
schemaIdGuid: db2c48b2-d14d-ec4e-9f58-ad579d8b440e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.535 Attribute msKds-KDFParam

This attribute holds parameters for the key derivation algorithm.

```
cn: ms-Kds-KDF-Param
ldapDisplayName: msKds-KDFParam
attributeId: 1.2.840.113556.1.4.2170
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fRODCFilteredAttribute | fCONFIDENTIAL
rangeUpper: 2000
schemaIdGuid: 8a800772-f4b8-154f-b41c-2e4271eff7a7
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.536 Attribute msKds-PrivateKeyLength

This attribute contains the length of the secret agreement private key.

```
cn: ms-Kds-PrivateKey-Length
ldapDisplayName: msKds-PrivateKeyLength
attributeId: 1.2.840.113556.1.4.2174
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fRODCFilteredAttribute | fCONFIDENTIAL
schemaIdGuid: 615f42a1-37e7-1148-a0dd-3007e09cfc81
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.537 Attribute msKds-PublicKeyLength

This attribute contains the length of the secret agreement public key.

```
cn: ms-Kds-PublicKey-Length
ldapDisplayName: msKds-PublicKeyLength
attributeId: 1.2.840.113556.1.4.2173
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fRODCFilteredAttribute | fCONFIDENTIAL
schemaIdGuid: e338f470-39cd-4549-ab5b-f69f9e583fe0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.538 Attribute msKds-RootKeyData

This attribute contains the data for the root key.

```
cn: ms-Kds-RootKeyData
ldapDisplayName: msKds-RootKeyData
```

```
attributeId: 1.2.840.113556.1.4.2175
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fRODCFilteredAttribute | fCONFIDENTIAL
rangeUpper: 128
schemaIdGuid: 26627c27-08a2-0a40-a1b1-8dce85b42993
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.539 Attribute msKds-SecretAgreementAlgorithmID

This attribute contains the name of the secret agreement algorithm to be used with public keys.

```
cn: ms-Kds-SecretAgreement-AlgorithmID
ldapDisplayName: msKds-SecretAgreementAlgorithmID
attributeId: 1.2.840.113556.1.4.2171
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fRODCFilteredAttribute | fCONFIDENTIAL
rangeUpper: 200
schemaIdGuid: 1702975d-225e-cb4a-b15d-0daea8b5e990
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.540 Attribute msKds-SecretAgreementParam

This attribute holds the parameters for the secret agreement algorithm.

```
cn: ms-Kds-SecretAgreement-Param
ldapDisplayName: msKds-SecretAgreementParam
attributeId: 1.2.840.113556.1.4.2172
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fRODCFilteredAttribute | fCONFIDENTIAL
rangeUpper: 2000
schemaIdGuid: 30b099d9-edfe-7549-b807-eba444da79e9
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.541 Attribute msKds-UseStartTime

This attribute contains the time after which a root key can be used.

```
cn: ms-Kds-UseStartTime
ldapDisplayName: msKds-UseStartTime
attributeId: 1.2.840.113556.1.4.2178
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
systemOnly: FALSE
```

```
searchFlags: fRODCFilteredAttribute | fCONFIDENTIAL
schemaIdGuid: 6cdc047f-f522-b74a-9a9c-d95ac8cdfda2
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.542 Attribute msKds-Version

This attribute holds the version number of this root key.

```
cn: ms-Kds-Version
ldapDisplayName: msKds-Version
attributeId: 1.2.840.113556.1.4.2176
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fRODCFilteredAttribute | fCONFIDENTIAL
schemaIdGuid: d5f07340-e6b0-1e4a-97be-0d3318bd9db1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.543 Attribute MSMQ-MulticastAddress

For a given Microsoft Message Queuing (MSMQ) object, this attribute specifies the multicast address associated with the queue.

```
cn: MSMQ-Multicast-Address
ldapDisplayName: MSMQ-MulticastAddress
attributeId: 1.2.840.113556.1.4.1714
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 1d2f4412-f10d-4337-9b48-6e5b125cd265
systemOnly: FALSE
searchFlags: 0
rangeLower: 9
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.544 Attribute msMQ-Recipient-FormatName

For a given MSMQ object, this attribute specifies the recipient format name of a queue.

```
cn: MSMQ-Recipient-FormatName
ldapDisplayName: msMQ-Recipient-FormatName
attributeId: 1.2.840.113556.1.4.1695
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 3bfe6748-b544-485a-b067-1b310c4334bf
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 255
```

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.545 Attribute MSMQ-SecuredSource

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

```
cn: MSMQ-Secured-Source
ldapDisplayName: MSMQ-SecuredSource
attributeId: 1.2.840.113556.1.4.1713
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 8bf0221b-7a06-4d63-91f0-1499941813d3
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.546 Attribute mSMQAuthenticate

For a given MSMQ object, this attribute specifies whether authenticated messages are accepted.

```
cn: MSMQ-Authenticate
ldapDisplayName: mSMQAuthenticate
attributeId: 1.2.840.113556.1.4.923
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 9a0dc326-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.547 Attribute mSMQBasePriority

For a given MSMQ object, this attribute specifies the base priority of messages transmitted to this queue.

```
cn: MSMQ-Base-Priority
ldapDisplayName: mSMQBasePriority
attributeId: 1.2.840.113556.1.4.920
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 9a0dc323-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.548 Attribute mSMQComputerType

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

```
cn: MSMQ-Computer-Type
ldapDisplayName: mSMQComputerType
attributeId: 1.2.840.113556.1.4.933
attributeSyntax: 2.5.5.4
omSyntax: 20
isSingleValued: TRUE
schemaIdGuid: 9a0dc32e-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.549 Attribute mSMQComputerTypeEx

For a given MSMQ object, this attribute specifies the operating system and MSMQ version.

```
cn: MSMQ-Computer-Type-Ex
ldapDisplayName: mSMQComputerTypeEx
attributeId: 1.2.840.113556.1.4.1417
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 18120de8-f4c4-4341-bd95-32eb5bcf7c80
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.550 Attribute mSMQCost

For a given MSMQ object, this attribute specifies the cost of routing between two MSMQ endpoints.

```
cn: MSMQ-Cost
ldapDisplayName: mSMQCost
attributeId: 1.2.840.113556.1.4.946
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 9a0dc33a-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.551 Attribute mSMQCSPName

For a given MSMQ object, this attribute specifies the type of cryptographic provider used by MSMQ for a given Active Directory domain.

```
cn: MSMQ-CSP-Name
ldapDisplayName: mSMQCSPName
attributeId: 1.2.840.113556.1.4.940
attributeSyntax: 2.5.5.4
omSyntax: 20
isSingleValued: TRUE
schemaIdGuid: 9a0dc334-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.552 Attribute mSMQDependentClientService

For a given server, this attribute specifies whether this server can be a supporting MSMQ server for dependent clients.

```
cn: MSMQ-Dependent-Client-Service
ldapDisplayName: mSMQDependentClientService
attributeId: 1.2.840.113556.1.4.1239
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 2df90d83-009f-11d2-aa4c-00c04fd7d83a
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.553 Attribute mSMQDependentClientServices

For a given server, this attribute specifies whether the Microsoft Message Queuing service installed on the server provides MSMQ-dependent client services.

```
cn: MSMQ-Dependent-Client-Services
ldapDisplayName: mSMQDependentClientServices
attributeId: 1.2.840.113556.1.4.1226
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 2df90d76-009f-11d2-aa4c-00c04fd7d83a
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.554 Attribute mSMQDigests

For a given MSMQ object, this attribute specifies an array of digests used by MSMQ.

```
cn: MSMQ-Digests
ldapDisplayName: mSMQDigests
attributeId: 1.2.840.113556.1.4.948
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 9a0dc33c-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 16
rangeUpper: 16
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.555 Attribute mSMQDigestsMig

For a given MSMQ object, this attribute is to be empty.

```
cn: MSMQ-Digests-Mig
ldapDisplayName: mSMQDigestsMig
attributeId: 1.2.840.113556.1.4.966
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 0f71d8e0-da3b-11d1-90a5-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

In Windows 2000 Server, the value of this attribute is set to the value of mSMQDigests attribute when the MSMQ object is created.

2.556 Attribute mSMQDsService

For a given MSMQ object, this attribute specifies whether the MSMQ server provides access to Active Directory.

```
cn: MSMQ-Ds-Service
ldapDisplayName: mSMQDsService
attributeId: 1.2.840.113556.1.4.1238
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 2df90d82-009f-11d2-aa4c-00c04fd7d83a
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.557 Attribute mSMQDsServices

For a given MSMQ object, this attribute specifies whether the MSMQ server provides access to Active Directory.

```
cn: MSMQ-Ds-Services
ldapDisplayName: mSMQDsServices
attributeId: 1.2.840.113556.1.4.1228
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 2df90d78-009f-11d2-aa4c-00c04fd7d83a
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.558 Attribute mSMQEncryptKey

For a given MSMQ object, this attribute specifies the computer's public key certificate used for encryption.

```
cn: MSMQ-Encrypt-Key
ldapDisplayName: mSMQEncryptKey
attributeId: 1.2.840.113556.1.4.936
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 9a0dc331-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.559 Attribute mSMQForeign

For a given MSMQ object, this attribute specifies whether the queue manager is a foreign system that services foreign queues.

```
cn: MSMQ-Foreign
ldapDisplayName: mSMQForeign
attributeId: 1.2.840.113556.1.4.934
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 9a0dc32f-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.560 Attribute mSMQInRoutingServers

For a given MSMQ object, this attribute specifies the distinguished names of MSMQ routing servers through which all incoming traffic to the server is routed.

```
cn: MSMQ-In-Routing-Servers
ldapDisplayName: mSMQInRoutingServers
attributeId: 1.2.840.113556.1.4.929
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 9a0dc32c-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.561 Attribute mSMQInterval1

For a given MSMQ object, this attribute specifies the default replication time within an MSMQ site.

```
cn: MSMQ-Interval1
ldapDisplayName: mSMQInterval1
attributeId: 1.2.840.113556.1.4.1308
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 8ea825aa-3b7b-11d2-90cc-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.562 Attribute mSMQInterval2

For a given MSMQ object, this attribute specifies the default replication time between MSMQ sites.

```
cn: MSMQ-Interval2
ldapDisplayName: mSMQInterval2
attributeId: 1.2.840.113556.1.4.1309
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 99b88f52-3b7b-11d2-90cc-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.563 Attribute mSMQJournal

For a given MSMQ object, this attribute specifies how MSMQ tracks messages removed from the queue.

```
cn: MSMQ-Journal
ldapDisplayName: mSMQJournal
attributeId: 1.2.840.113556.1.4.918
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 9a0dc321-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.564 Attribute mSMQJournalQuota

For a given MSMQ object, this attribute specifies the journal storage quota.

```
cn: MSMQ-Journal-Quota
ldapDisplayName: mSMQJournalQuota
attributeId: 1.2.840.113556.1.4.921
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 9a0dc324-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.565 Attribute mSMQLabel

This attribute has been superseded by the mSMQLabelEx attribute.

```
cn: MSMQ-Label
ldapDisplayName: mSMQLabel
attributeId: 1.2.840.113556.1.4.922
attributeSyntax: 2.5.5.4
omSyntax: 20
isSingleValued: TRUE
schemaIdGuid: 9a0dc325-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 0
rangeUpper: 124
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.566 Attribute mSMQLabelEx

For a given MSMQ object, this attribute specifies a descriptive label for a queue.

```
cn: MSMQ-Label-Ex
ldapDisplayName: mSMQLabelEx
attributeId: 1.2.840.113556.1.4.1415
```

```
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 4580ad25-d407-48d2-ad24-43e6e56793d7
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 0
rangeUpper: 124
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.567 Attribute mSMQLongLived

For a given MSMQ object, this attribute specifies the default value for the length of time a message has to reach a queue.

```
cn: MSMQ-Long-Lived
ldapDisplayName: mSMQLongLived
attributeId: 1.2.840.113556.1.4.941
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 9a0dc335-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.568 Attribute mSMQMigrated

For a given MSMQ object, this attribute specifies information used for MSMQ migration.

```
cn: MSMQ-Migrated
ldapDisplayName: mSMQMigrated
attributeId: 1.2.840.113556.1.4.952
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 9a0dc33f-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.569 Attribute mSMQNameStyle

For a given MSMQ object, this attribute specifies whether weakened security is enabled.

```
cn: MSMQ-Name-Style
ldapDisplayName: mSMQNameStyle
attributeId: 1.2.840.113556.1.4.939
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 9a0dc333-c100-11d1-bbc5-0080c76670c0
```

```
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.570 Attribute mSMQNt4Flags

For a given MSMQ object, this attribute specifies whether the server is MSMQ 1.0.

```
cn: MSMQ-Nt4-Flags
ldapDisplayName: mSMQNt4Flags
attributeId: 1.2.840.113556.1.4.964
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: eb38a158-d57f-11d1-90a2-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.571 Attribute mSMQNt4Stub

For a given MSMQ object, this attribute specifies whether the server was migrated from an MSMQ 1.0 database.

```
cn: MSMQ-Nt4-Stub
ldapDisplayName: mSMQNt4Stub
attributeId: 1.2.840.113556.1.4.960
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: FALSE
schemaIdGuid: 6f914be6-d57e-11d1-90a2-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.572 Attribute mSMQOSType

For a given MSMQ object, this attribute specifies the operating system type of the queue manager.

```
cn: MSMQ-OS-Type
ldapDisplayName: mSMQOSType
attributeId: 1.2.840.113556.1.4.935
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 9a0dc330-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.573 Attribute mSMQOutRoutingServers

For a given MSMQ object, this attribute specifies the distinguished names of the MSMQ routing servers through which outgoing traffic is routed.

```
cn: MSMQ-Out-Routing-Servers
ldapDisplayName: mSMQOutRoutingServers
attributeId: 1.2.840.113556.1.4.928
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 9a0dc32b-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.574 Attribute mSMQOwnerID

For a given MSMQ object, this attribute specifies the GUID of the MSMQ server that owns the queue.

```
cn: MSMQ-Owner-ID
ldapDisplayName: mSMQOwnerID
attributeId: 1.2.840.113556.1.4.925
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 9a0dc328-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE | fATTINDEX
rangeLower: 16
rangeUpper: 16
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

2.575 Attribute mSMQPrevSiteGates

This attribute was intended for use by MSMQ.

```
cn: MSMQ-Prev-Site-Gates
ldapDisplayName: mSMQPrevSiteGates
attributeId: 1.2.840.113556.1.4.1225
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 2df90d75-009f-11d2-aa4c-00c04fd7d83a
systemOnly: FALSE
searchFlags: 0
```

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.576 Attribute mSMQPrivacyLevel

For a given MSMQ object, this attribute specifies the privacy level of the queue.

```
cn: MSMQ-Privacy-Level
ldapDisplayName: mSMQPrivacyLevel
attributeId: 1.2.840.113556.1.4.924
attributeSyntax: 2.5.5.9
omSyntax: 10
isSingleValued: TRUE
schemaIdGuid: 9a0dc327-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 2
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.577 Attribute mSMQQMID

For a given MSMQ object, this attribute contains the GUID of the server's MSMQ configuration object.

```
cn: MSMQ-QM-ID
ldapDisplayName: mSMQQMID
attributeId: 1.2.840.113556.1.4.951
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 9a0dc33e-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
rangeLower: 16
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.578 Attribute mSMQQueueJournalQuota

For a given MSMQ object, this attribute contains the maximum size of the queue journal.

```
cn: MSMQ-Queue-Journal-Quota
ldapDisplayName: mSMQQueueJournalQuota
attributeId: 1.2.840.113556.1.4.963
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 8e441266-d57f-11d1-90a2-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.579 Attribute mSMQQueueNameExt

For a given MSMQ object, this attribute contains the suffix of the queue name if the name exceeds 64 characters.

```
cn: MSMQ-Queue-Name-Ext
ldapDisplayName: mSMQQueueNameExt
attributeId: 1.2.840.113556.1.4.1243
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 2df90d87-009f-11d2-aa4c-00c04fd7d83a
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 92
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.580 Attribute mSMQQueueQuota

For a given MSMQ object, this attribute contains the maximum size of the queue.

```
cn: MSMQ-Queue-Quota
ldapDisplayName: mSMQQueueQuota
attributeId: 1.2.840.113556.1.4.962
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 3f6b8e12-d57f-11d1-90a2-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.581 Attribute mSMQQueueType

For a given MSMQ object, this attribute specifies the type of service that the queue provides.

```
cn: MSMQ-Queue-Type
ldapDisplayName: mSMQQueueType
attributeId: 1.2.840.113556.1.4.917
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 9a0dc320-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 16
rangeUpper: 16
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.582 Attribute mSMQQuota

For a given MSMQ object, this attribute specifies the disk quota for all queues located at the queue manager.

```
cn: MSMQ-Quota
ldapDisplayName: mSMQQuota
attributeId: 1.2.840.113556.1.4.919
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 9a0dc322-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.583 Attribute mSMQRoutingService

For a given MSMQ object, this attribute specifies whether the server is a routing server.

```
cn: MSMQ-Routing-Service
ldapDisplayName: mSMQRoutingService
attributeId: 1.2.840.113556.1.4.1237
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 2df90d81-009f-11d2-aa4c-00c04fd7d83a
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.584 Attribute mSMQRoutingServices

For a given MSMQ object, this attribute specifies whether the queue manager is configured as a routing server.

```
cn: MSMQ-Routing-Services
ldapDisplayName: mSMQRoutingServices
attributeId: 1.2.840.113556.1.4.1227
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 2df90d77-009f-11d2-aa4c-00c04fd7d83a
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.585 Attribute mSMQServices

For a given MSMQ object, this attribute specifies the type of service.

```
cn: MSMQ-Services
ldapDisplayName: mSMQServices
attributeId: 1.2.840.113556.1.4.950
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 9a0dc33d-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.586 Attribute mSMQServiceType

For a given MSMQ object, this attribute specifies the type of service.

```
cn: MSMQ-Service-Type
ldapDisplayName: mSMQServiceType
attributeId: 1.2.840.113556.1.4.930
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 9a0dc32d-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.587 Attribute mSMQSignCertificates

For a given MSMQ object, this attribute contains an array of certificates.

```
cn: MSMQ-Sign-Certificates
ldapDisplayName: mSMQSignCertificates
attributeId: 1.2.840.113556.1.4.947
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 9a0dc33b-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1048576
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

In Windows 2000 Server, the rangeUpper attribute is not defined.

2.588 Attribute mSMQSignCertificatesMig

For a given MSMQ object, this attribute is to be empty.

```
cn: MSMQ-Sign-Certificates-Mig
ldapDisplayName: mSMQSignCertificatesMig
attributeId: 1.2.840.113556.1.4.967
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 3881b8ea-da3b-11d1-90a5-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1048576
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

In Windows 2000 Server, the rangeUpper attribute is not defined, and the value of this attribute is set to the value of the mSMQSignCertificates attribute when the MSMQ object is created.

2.589 Attribute mSMQSignKey

For a given MSMQ object, this attribute specifies the computer's public key certificate used for signing.

```
cn: MSMQ-Sign-Key
ldapDisplayName: mSMQSignKey
attributeId: 1.2.840.113556.1.4.937
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 9a0dc332-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.590 Attribute mSMQSite1

For a given MSMQ object, this attribute contains the GUID of a routing site.

```
cn: MSMQ-Site-1
ldapDisplayName: mSMQSite1
attributeId: 1.2.840.113556.1.4.943
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 9a0dc337-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.591 Attribute mSMQSite2

For a given MSMQ object, this attribute contains the GUID of a routing site.

```
cn: MSMQ-Site-2
ldapDisplayName: mSMQSite2
attributeId: 1.2.840.113556.1.4.944
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 9a0dc338-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.592 Attribute mSMQSiteForeign

For a given MSMQ object, this attribute specifies whether a site is an external messaging system.

```
cn: MSMQ-Site-Foreign
ldapDisplayName: mSMQSiteForeign
attributeId: 1.2.840.113556.1.4.961
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: FALSE
schemaIdGuid: fd129d8a-d57e-11d1-90a2-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.593 Attribute mSMQSiteGates

For a given MSMQ object, this attribute contains the GUIDs of the MSMQ configuration objects of the servers that are site gates on the link.

```
cn: MSMQ-Site-Gates
ldapDisplayName: mSMQSiteGates
attributeId: 1.2.840.113556.1.4.945
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 9a0dc339-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.594 Attribute mSMQSiteGatesMig

For a given MSMQ object, this attribute contains the previous value of the mSMQSiteGates attribute.

```
cn: MSMQ-Site-Gates-Mig
ldapDisplayName: mSMQSiteGatesMig
attributeId: 1.2.840.113556.1.4.1310
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: e2704852-3b7b-11d2-90cc-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.595 Attribute mSMQSiteID

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

```
cn: MSMQ-Site-ID
ldapDisplayName: mSMQSiteID
attributeId: 1.2.840.113556.1.4.953
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 9a0dc340-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.596 Attribute mSMQSiteName

For a given MSMQ object, this attribute contains the name of a site. This attribute has been superseded by the mSMQSiteNameEx attribute.

```
cn: MSMQ-Site-Name
ldapDisplayName: mSMQSiteName
attributeId: 1.2.840.113556.1.4.965
attributeSyntax: 2.5.5.4
omSyntax: 20
isSingleValued: TRUE
schemaIdGuid: ffadb4b2-de39-11d1-90a5-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.597 Attribute mSMQSiteNameEx

For a given MSMQ object, this attribute contains the name of a site.

```
cn: MSMQ-Site-Name-Ex
ldapDisplayName: mSMQSiteNameEx
attributeId: 1.2.840.113556.1.4.1416
attributeSyntax: 2.5.5.12
```

```
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 422144fa-c17f-4649-94d6-9731ed2784ed
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.598 Attribute mSMQSites

For a given MSMQ object, this attribute contains the site identifiers for sites to which the server belongs.

```
cn: MSMQ-Sites
ldapDisplayName: mSMQSites
attributeId: 1.2.840.113556.1.4.927
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 9a0dc32a-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
rangeLower: 16
rangeUpper: 16
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.599 Attribute mSMQTransactional

This attribute specifies, for a queue in MSMQ, the transaction level of the queue.

```
cn: MSMQ-Transactional
ldapDisplayName: mSMQTransactional
attributeId: 1.2.840.113556.1.4.926
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 9a0dc329-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.600 Attribute mSMQUserSid

For a given MSMQ object, this attribute contains the SID of a migrated user.

```
cn: MSMQ-User-Sid
ldapDisplayName: mSMQUserSid
attributeId: 1.2.840.113556.1.4.1337
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: c58aae32-56f9-11d2-90d0-00c04fd91ab1
```

```
systemOnly: TRUE
searchFlags: 0
rangeLower: 0
rangeUpper: 128
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

2.601 Attribute mSMQVersion

For a given MSMQ object, this attribute contains the version number of the MSMQ information.

```
cn: MSMQ-Version
ldapDisplayName: mSMQVersion
attributeId: 1.2.840.113556.1.4.942
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 9a0dc336-c100-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.602 Attribute msNPAllowDialin

For a given user or machine account, this attribute specifies whether the account has permission to dial in to the Remote Access Service from outside the corporate network.

```
cn: msNPAllowDialin
ldapDisplayName: msNPAllowDialin
attributeId: 1.2.840.113556.1.4.1119
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: db0c9085-c1f2-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: fCOPY
attributeSecurityGuid: 037088f8-0ae1-11d2-b422-00a0c968f939
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.603 Attribute msNPCalledStationID

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

```
cn: msNPCalledStationID
ldapDisplayName: msNPCalledStationID
```

```
attributeId: 1.2.840.113556.1.4.1123
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: db0c9089-c1f2-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.604 Attribute msNPCallingStationID

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

```
cn: msNPCallingStationID
ldapDisplayName: msNPCallingStationID
attributeId: 1.2.840.113556.1.4.1124
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: db0c908a-c1f2-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: fCOPY
attributeSecurityGuid: 037088f8-0ae1-11d2-b422-00a0c968f939
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.605 Attribute msNPSavedCallingStationID

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

```
cn: msNPSavedCallingStationID
ldapDisplayName: msNPSavedCallingStationID
attributeId: 1.2.840.113556.1.4.1130
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: db0c908e-c1f2-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: fCOPY
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.606 Attribute msPKI-Cert-Template-OID

For the certificate authority (CA) for the Active Directory domain, this attribute specifies the object identifier for a certificate template.

```
cn: ms-PKI-Cert-Template-OID
ldapDisplayName: msPKI-Cert-Template-OID
attributeId: 1.2.840.113556.1.4.1436
attributeSyntax: 2.5.5.12
omSyntax: 64
```

```
isSingleValued: TRUE
schemaIdGuid: 3164c36a-ba26-468c-8bda-c1e5cc256728
systemOnly: FALSE
searchFlags: 1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.607 Attribute msPKI-Certificate-Application-Policy

For the CA for the Active Directory domain, this attribute specifies application identifiers that can be found in a certificate.

```
cn: ms-PKI-Certificate-Application-Policy
ldapDisplayName: msPKI-Certificate-Application-Policy
attributeId: 1.2.840.113556.1.4.1674
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: dbd90548-aa37-4202-9966-8c537ba5ce32
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.608 Attribute msPKI-Certificate-Name-Flag

For the CA for the Active Directory domain, this attribute specifies flags to construct the subject name in an issued certificate.

```
cn: ms-PKI-Certificate-Name-Flag
ldapDisplayName: msPKI-Certificate-Name-Flag
attributeId: 1.2.840.113556.1.4.1432
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ea1dddc4-60ff-416e-8cc0-17cee534bce7
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.609 Attribute msPKI-Certificate-Policy

For the CA for the Active Directory domain, this attribute specifies the list of policy identifiers and (optional) certificate service providers (CSPs) in an issued certificate.

```
cn: ms-PKI-Certificate-Policy
ldapDisplayName: msPKI-Certificate-Policy
attributeId: 1.2.840.113556.1.4.1439
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 38942346-cc5b-424b-a7d8-6ffd12029c5f
systemOnly: FALSE
searchFlags: 0
```

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.610 Attribute msPKI-CredentialRoamingTokens

This attribute stores the encrypted user credential token blobs for roaming.

```
cn: ms-PKI-Credential-Roaming-Tokens
ldapDisplayName: msPKI-CredentialRoamingTokens
attributeId: 1.2.840.113556.1.4.2050
attributeSyntax: 2.5.5.7
omSyntax: 127
omObjectClass: 1.2.840.113556.1.1.1.11
isSingleValued: FALSE
showInAdvancedViewOnly: TRUE
schemaIdGuid: b7ff5a38-0818-42b0-8110-d3d154c97f24
attributeSecurityGUID: 91e647de-d96f-4b70-9557-d63ff4f3ccd8
searchFlags: fCONFIDENTIAL
linkID: 2162
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.611 Attribute msPKI-Enrollment-Flag

For the CA for the Active Directory domain, this attribute specifies enrollment flags for clients.

```
cn: ms-PKI-Enrollment-Flag
ldapDisplayName: msPKI-Enrollment-Flag
attributeId: 1.2.840.113556.1.4.1430
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: d15ef7d8-f226-46db-ae79-b34e560bd12c
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.612 Attribute msPKI-Enrollment-Servers

For the certificate authority (CA) for the Active Directory domain, this attribute specifies priority, authentication type, and URI of each certificate enrollment Web service.

```
cn: ms-PKI-Enrollment-Servers
ldapDisplayName: msPKI-Enrollment-Servers
attributeId: 1.2.840.113556.1.4.2076
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: f22bd38f-a1d0-4832-8b28-0331438886a6
systemOnly: FALSE
rangeUpper: 65536
isMemberOfPartialAttributeSet: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.613 Attribute msPKI-Minimal-Key-Size

For the CA for the Active Directory domain, this attribute specifies the minimum private key size for a certificate.

```
cn: ms-PKI-Minimal-Key-Size
ldapDisplayName: msPKI-Minimal-Key-Size
attributeId: 1.2.840.113556.1.4.1433
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: e96a63f5-417f-46d3-be52-db7703c503df
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.614 Attribute msPKI-OID-Attribute

For the CA for the Active Directory domain, this attribute specifies the enterprise object identifier (OID).

```
cn: ms-PKI-OID-Attribute
ldapDisplayName: msPKI-OID-Attribute
attributeId: 1.2.840.113556.1.4.1671
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 8c9e1288-5028-4f4f-a704-76d026f246ef
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.615 Attribute msPKI-OID-CPS

For the CA for the Active Directory domain, this attribute specifies the certification practice statement (CPS).

```
cn: ms-PKI-OID-CPS
ldapDisplayName: msPKI-OID-CPS
attributeId: 1.2.840.113556.1.4.1672
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 5f49940e-a79f-4a51-bb6f-3d446a54dc6b
systemOnly: FALSE
searchFlags: 0
rangeUpper: 32768
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.616 Attribute msPKI-OID-User-Notice

For the CA for the Active Directory domain, this attribute specifies the user notice for the enterprise issuer policy OID.

```
cn: ms-PKI-OID-User-Notice
ldapDisplayName: msPKI-OID-User-Notice
attributeId: 1.2.840.113556.1.4.1673
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 04c4da7a-e114-4e69-88de-e293f2d3b395
systemOnly: FALSE
searchFlags: 0
rangeUpper: 32768
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.617 Attribute msPKI-OIDLocalizedName

For the CA for the Active Directory domain, this attribute specifies the list of display names used to describe an OID by locale.

```
cn: ms-PKI-OID-LocalizedName
ldapDisplayName: msPKI-OIDLocalizedName
attributeId: 1.2.840.113556.1.4.1712
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 7d59a816-bb05-4a72-971f-5c1331f67559
systemOnly: FALSE
searchFlags: 0
rangeUpper: 512
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.618 Attribute msPKI-Private-Key-Flag

For the CA for the Active Directory domain, this attribute specifies the private key-related flags.

```
cn: ms-PKI-Private-Key-Flag
ldapDisplayName: msPKI-Private-Key-Flag
attributeId: 1.2.840.113556.1.4.1431
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bab04ac2-0435-4709-9307-28380e7c7001
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.619 Attribute msPKI-RA-Application-Policies

For the CA for the Active Directory domain, this attribute specifies the required registration authority (RA) application policy OID in the counter signatures of the certificate request.

```
cn: ms-PKI-RA-Application-Policies
ldapDisplayName: msPKI-RA-Application-Policies
attributeId: 1.2.840.113556.1.4.1675
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 3c91fbbf-4773-4ccd-a87b-85d53e7bcf6a
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.620 Attribute msPKI-RA-Policies

For the CA for the Active Directory domain, this attribute specifies the required RA application policy OID in the counter signatures of the certificate request.

```
cn: ms-PKI-RA-Policies
ldapDisplayName: msPKI-RA-Policies
attributeId: 1.2.840.113556.1.4.1438
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: d546ae22-0951-4d47-817e-1c9f96faad46
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.621 Attribute msPKI-RA-Signature

For the CA for the Active Directory domain, this attribute specifies the number of enrollment RA signatures required in an enrollment request.

```
cn: ms-PKI-RA-Signature
ldapDisplayName: msPKI-RA-Signature
attributeId: 1.2.840.113556.1.4.1429
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: fe17e04b-937d-4f7e-8e0e-9292c8d5683e
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.622 Attribute msPKI-Site-Name

For the CA for the Active Directory domain, this attribute specifies the Active Directory site to which the CA machine belongs.

```
cn: ms-PKI-Site-Name
ldapDisplayName: msPKI-Site-Name
attributeId: 1.2.840.113556.1.4.2077
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 0cd8711f-0afc-4926-a4b1-09b08d3d436c
systemOnly: FALSE
rangeUpper: 1024
isMemberOfPartialAttributeSet: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.623 Attribute msPKI-Supersede-Templates

For the CA for the Active Directory domain, this attribute specifies the names of the certificate templates that are superseded by the current template.

```
cn: ms-PKI-Supersede-Templates
ldapDisplayName: msPKI-Supersede-Templates
attributeId: 1.2.840.113556.1.4.1437
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 9de8ae7d-7a5b-421d-b5e4-061f79dfd5d7
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.624 Attribute msPKI-Template-Minor-Revision

For the CA for the Active Directory domain, this attribute specifies the attributes in the template that are changing.

```
cn: ms-PKI-Template-Minor-Revision
ldapDisplayName: msPKI-Template-Minor-Revision
attributeId: 1.2.840.113556.1.4.1435
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 13f5236c-1884-46b1-b5d0-484e38990d58
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.625 Attribute msPKI-Template-Schema-Version

For the CA for the Active Directory domain, this attribute specifies the schema updates of the Certificate Template class object.

```
cn: ms-PKI-Template-Schema-Version
ldapDisplayName: msPKI-Template-Schema-Version
```

```
attributeId: 1.2.840.113556.1.4.1434
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 0c15e9f5-491d-4594-918f-32813a091da9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.626 Attribute msPKIAccountCredentials

This attribute specifies the storage of encrypted user credential token BLOBS for roaming.

```
cn: ms-PKI-AccountCredentials
ldapDisplayName: msPKIAccountCredentials
attributeId: 1.2.840.113556.1.4.1894
attributeSyntax: 2.5.5.7
omSyntax: 127
omObjectClass: 1.2.840.113556.1.1.1.11
isSingleValued: FALSE
schemaIdGuid: b8dfa744-31dc-4ef1-ac7c-84baf7ef9da7
systemOnly: FALSE
searchFlags: fCONFIDENTIAL | fRODCFilteredAttribute
attributeSecurityGuid: 91e647de-d96f-4b70-9557-d63ff4f3ccd8
linkID: 2048
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: FALSE
```

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

2.627 Attribute msPKIDPAPIMasterKeys

This attribute specifies the storage of encrypted Data Protection API (DPAPI) master keys for the user.

```
cn: ms-PKI-DPAPIMasterKeys
ldapDisplayName: msPKIDPAPIMasterKeys
attributeId: 1.2.840.113556.1.4.1893
attributeSyntax: 2.5.5.7
omSyntax: 127
omObjectClass: 1.2.840.113556.1.1.1.11
isSingleValued: FALSE
schemaIdGuid: b3f93023-9239-4f7c-b99c-6745d87adbc2
systemOnly: FALSE
searchFlags: fCONFIDENTIAL | fRODCFilteredAttribute
attributeSecurityGuid: 91e647de-d96f-4b70-9557-d63ff4f3ccd8
linkID: 2046
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: FALSE
```

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

2.628 Attribute msPKIRoamingTimeStamp

This attribute specifies the time stamp for last change to roaming tokens.

```
cn: ms-PKI-RoamingTimeStamp
ldapDisplayName: msPKIRoamingTimeStamp
```

```
attributeId: 1.2.840.113556.1.4.1892
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 6617e4ac-a2f1-43ab-b60c-11fbd1facf05
systemOnly: FALSE
searchFlags: fCONFIDENTIAL | fRODCFilteredAttribute
attributeSecurityGuid: 91e647de-d96f-4b70-9557-d63ff4f3ccd8
systemFlags: FLAG_SCHEMA_BASE_OBJECT
isMemberOfPartialAttributeSet: FALSE
```

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

2.629 Attribute msRADIUSCallbackNumber

This attribute specifies values used by the Microsoft Network Access Protection (NAP) service.

```
cn: msRADIUSCallbackNumber
ldapDisplayName: msRADIUSCallbackNumber
attributeId: 1.2.840.113556.1.4.1145
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: TRUE
schemaIdGuid: db0c909c-c1f2-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: fCOPY
attributeSecurityGuid: 037088f8-0ae1-11d2-b422-00a0c968f939
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.630 Attribute msRADIUS-FramedInterfaceId

This attribute indicates the IPv6 interface identifier to be configured for the user.

```
cn: ms-RADIUS-FramedInterfaceId
ldapDisplayName: msRADIUS-FramedInterfaceId
attributeId: 1.2.840.113556.1.4.1913
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: TRUE
schemaIdGuid: a6f24a23-d65c-4d65-a64f-35fb6873c2b9
systemOnly: FALSE
searchFlags: fCOPY
rangeUpper: 8
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.631 Attribute msRADIUSFramedIPAddress

This attribute specifies values used by the NAP service.

```
cn: msRADIUSFramedIPAddress
ldapDisplayName: msRADIUSFramedIPAddress
attributeId: 1.2.840.113556.1.4.1153
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
```

```
schemaIdGuid: db0c90a4-c1f2-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: fCOPY
attributeSecurityGuid: 037088f8-0ae1-11d2-b422-00a0c968f939
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.632 Attribute msRADIUS-FramedIpv6Prefix

This attribute indicates an IPv6 prefix (and corresponding route) to be configured for the user.

```
cn: ms-RADIUS-FramedIpv6Prefix
ldapDisplayName: msRADIUS-FramedIpv6Prefix
attributeId: 1.2.840.113556.1.4.1915
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: TRUE
schemaIdGuid: f63ed610-d67c-494d-87be-cd1e24359a38
systemOnly: FALSE
searchFlags: fCOPY
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.633 Attribute msRADIUS-FramedIpv6Route

This attribute provides routing information to be configured for the user on the network attached storage (NAS).

```
cn: ms-RADIUS-FramedIpv6Route
ldapDisplayName: msRADIUS-FramedIpv6Route
attributeId: 1.2.840.113556.1.4.1917
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: 5a5aa804-3083-4863-94e5-018a79a22ec0
systemOnly: FALSE
searchFlags: fCOPY
rangeUpper: 4096
```

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

2.634 Attribute msRADIUSFramedRoute

This attribute specifies values used by the NAP service.

```
cn: msRADIUSFramedRoute
ldapDisplayName: msRADIUSFramedRoute
attributeId: 1.2.840.113556.1.4.1158
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: db0c90a9-c1f2-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: fCOPY
attributeSecurityGuid: 037088f8-0ae1-11d2-b422-00a0c968f939
```

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.635 Attribute msRADIUS-SavedFramedInterfaceId

This attribute indicates the IPv6 interface identifier to be configured for the user.

```
cn: ms-RADIUS-SavedFramedInterfaceId
ldapDisplayName: msRADIUS-SavedFramedInterfaceId
attributeId: 1.2.840.113556.1.4.1914
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: TRUE
schemaIdGuid: a4da7289-92a3-42e5-b6b6-dad16d280ac9
systemOnly: FALSE
searchFlags: fCOPY
rangeUpper: 8
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.636 Attribute msRADIUS-SavedFramedIpv6Prefix

This attribute indicates an IPv6 prefix (and corresponding route) to be configured for the user.

```
cn: ms-RADIUS-SavedFramedIpv6Prefix
ldapDisplayName: msRADIUS-SavedFramedIpv6Prefix
attributeId: 1.2.840.113556.1.4.1916
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: TRUE
schemaIdGuid: 0965a062-b1e1-403b-b48d-5c0eb0e952cc
systemOnly: FALSE
searchFlags: fCOPY
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.637 Attribute msRADIUS-SavedFramedIpv6Route

This attribute provides routing information to be configured for the user on the NAS.

```
cn: ms-RADIUS-SavedFramedIpv6Route
ldapDisplayName: msRADIUS-SavedFramedIpv6Route
attributeId: 1.2.840.113556.1.4.1918
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: 9666bb5c-df9d-4d41-b437-2eec7e27c9b3
systemOnly: FALSE
searchFlags: fCOPY
rangeUpper: 4096
```

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

2.638 Attribute msRADIUSServiceType

This attribute specifies values used by the Microsoft NAP service.

```
cn: msRADIUSServiceType
ldapDisplayName: msRADIUSServiceType
attributeId: 1.2.840.113556.1.4.1171
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: db0c90b6-c1f2-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: fCOPY
attributeSecurityGuid: 037088f8-0ae1-11d2-b422-00a0c968f939
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.639 Attribute msRASSavedCallbackNumber

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

```
cn: msRASSavedCallbackNumber
ldapDisplayName: msRASSavedCallbackNumber
attributeId: 1.2.840.113556.1.4.1189
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: TRUE
schemaIdGuid: db0c90c5-c1f2-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: fCOPY
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.640 Attribute msRASSavedFramedIPAddress

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

```
cn: msRASSavedFramedIPAddress
ldapDisplayName: msRASSavedFramedIPAddress
attributeId: 1.2.840.113556.1.4.1190
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: db0c90c6-c1f2-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: fCOPY
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.641 Attribute msRASSavedFramedRoute

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

```
cn: msRASSavedFramedRoute
ldapDisplayName: msRASSavedFramedRoute
attributeId: 1.2.840.113556.1.4.1191
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: db0c90c7-c1f2-11d1-bbc5-0080c76670c0
systemOnly: FALSE
searchFlags: fCOPY
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.642 Attribute msRRASAttribute

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

```
cn: ms-RRAS-Attribute
ldapDisplayName: msRRASAttribute
attributeId: 1.2.840.113556.1.4.884
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: f39b98ad-938d-11d1-aebd-0000f80367c1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.643 Attribute msRRASVendorAttributeEntry

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

```
cn: ms-RRAS-Vendor-Attribute-Entry
ldapDisplayName: msRRASVendorAttributeEntry
attributeId: 1.2.840.113556.1.4.883
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: f39b98ac-938d-11d1-aebd-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

2.644 Attribute msSFU30Aliases

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Aliases
ldapDisplayName: msSFU30Aliases
attributeId: 1.2.840.113556.1.6.18.1.323
attributeSyntax: 2.5.5.5
```

```
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: 20ebf171-c69a-4c31-b29d-dcb837d8912d
systemOnly: FALSE
searchFlags: 0
rangeUpper: 153600
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.645 Attribute msSFU30CryptMethod

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Crypt-Method
ldapDisplayName: msSFU30CryptMethod
attributeId: 1.2.840.113556.1.6.18.1.352
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: TRUE
schemaIdGuid: 4503d2a3-3d70-41b8-b077-dff123c15865
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1024
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.646 Attribute msSFU30Domains

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Domains
ldapDisplayName: msSFU30Domains
attributeId: 1.2.840.113556.1.6.18.1.340
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: 93095ed3-6f30-4bdd-b734-65d569f5f7c9
systemOnly: FALSE
searchFlags: fATTINDEX
rangeUpper: 256000
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.647 Attribute msSFU30FieldSeparator

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Field-Separator
ldapDisplayName: msSFU30FieldSeparator
attributeId: 1.2.840.113556.1.6.18.1.302
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: a2e11a42-e781-4ca1-a7fa-ec307f62b6a1
systemOnly: FALSE
searchFlags: 0
rangeUpper: 50
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.648 Attribute msSFU30IntraFieldSeparator

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Intra-Field-Separator
ldapDisplayName: msSFU30IntraFieldSeparator
attributeId: 1.2.840.113556.1.6.18.1.303
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 95b2aef0-27e4-4cb9-880a-a2d9a9ea23b8
systemOnly: FALSE
searchFlags: 0
rangeUpper: 50
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.649 Attribute msSFU30IsValidContainer

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Is-Valid-Container
ldapDisplayName: msSFU30IsValidContainer
attributeId: 1.2.840.113556.1.6.18.1.350
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 0dea42f5-278d-4157-b4a7-49b59664915b
systemOnly: FALSE
searchFlags: fATTINDEX
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.650 Attribute msSFU30KeyAttributes

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Key-Attributes
ldapDisplayName: msSFU30KeyAttributes
attributeId: 1.2.840.113556.1.6.18.1.301
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 32ecd698-ce9e-4894-a134-7ad76b082e83
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1024
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.651 Attribute msSFU30KeyValues

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Key-Values
```

```
ldapDisplayName: msSFU30KeyValues
attributeId: 1.2.840.113556.1.6.18.1.324
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: 37830235-e5e9-46f2-922b-d8d44f03e7ae
systemOnly: FALSE
searchFlags: 0
rangeUpper: 10240
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.652 Attribute msSFU30MapFilter

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Map-Filter
ldapDisplayName: msSFU30MapFilter
attributeId: 1.2.840.113556.1.6.18.1.306
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: b7b16e01-024f-4e23-ad0d-71f1a406b684
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1024
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.653 Attribute msSFU30MasterServerName

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Master-Server-Name
ldapDisplayName: msSFU30MasterServerName
attributeId: 1.2.840.113556.1.6.18.1.307
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 4cc908a2-9e18-410e-8459-f17cc422020a
systemOnly: FALSE
searchFlags: fATTINDEX
rangeUpper: 1024
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.654 Attribute msSFU30MaxGidNumber

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Max-Gid-Number
ldapDisplayName: msSFU30MaxGidNumber
attributeId: 1.2.840.113556.1.6.18.1.342
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 04ee6aa6-f83b-469a-bf5a-3c00d3634669
systemOnly: FALSE
```

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```
searchFlags: fATTINDEX
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.655 Attribute msSFU30MaxUidNumber

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Max-Uid-Number
ldapDisplayName: msSFU30MaxUidNumber
attributeId: 1.2.840.113556.1.6.18.1.343
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ec998437-d944-4a28-8500-217588adfc75
systemOnly: FALSE
searchFlags: fATTINDEX
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.656 Attribute msSFU30Name

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Name
ldapDisplayName: msSFU30Name
attributeId: 1.2.840.113556.1.6.18.1.309
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: TRUE
schemaIdGuid: 16c5d1d3-35c2-4061-a870-a5cefda804f0
systemOnly: FALSE
searchFlags: fATTINDEX
rangeUpper: 1024
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.657 Attribute msSFU30NetgroupHostAtDomain

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Netgroup-Host-At-Domain
ldapDisplayName: msSFU30NetgroupHostAtDomain
attributeId: 1.2.840.113556.1.6.18.1.348
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: 97d2bf65-0466-4852-a25a-ec20f57ee36c
systemOnly: FALSE
searchFlags: fATTINDEX
rangeUpper: 2048
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.658 Attribute msSFU30NetgroupUserAtDomain

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Netgroup-User-At-Domain
ldapDisplayName: msSFU30NetgroupUserAtDomain
attributeId: 1.2.840.113556.1.6.18.1.349
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: a9e84eed-e630-4b67-b4b3-cad2a82d345e
systemOnly: FALSE
searchFlags: fATTINDEX
rangeUpper: 2048
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.659 Attribute msSFU30NisDomain

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Nis-Domain
ldapDisplayName: msSFU30NisDomain
attributeId: 1.2.840.113556.1.6.18.1.339
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: TRUE
schemaIdGuid: 9ee3b2e3-c7f3-45f8-8c9f-1382be4984d2
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE | fATTINDEX
rangeUpper: 1024
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.660 Attribute msSFU30NSMAPFieldPosition

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-NSMAP-Field-Position
ldapDisplayName: msSFU30NSMAPFieldPosition
attributeId: 1.2.840.113556.1.6.18.1.345
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: TRUE
schemaIdGuid: 585c9d5e-f599-4f07-9cf9-4373af4b89d3
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1024
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.661 Attribute msSFU30OrderNumber

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Order-Number
ldapDisplayName: msSFU30OrderNumber
attributeId: 1.2.840.113556.1.6.18.1.308
```

```
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 02625f05-d1ee-4f9f-b366-55266becb95c
systemOnly: FALSE
searchFlags: fATTINDEX
rangeUpper: 1024
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.662 Attribute msSFU30PosixMember

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Posix-Member
ldapDisplayName: msSFU30PosixMember
attributeId: 1.2.840.113556.1.6.18.1.346
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: c875d82d-2848-4cec-bb50-3c5486d09d57
systemOnly: FALSE
searchFlags: 0
linkID: 2030
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.663 Attribute msSFU30PosixMemberOf

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Posix-Member-Of
ldapDisplayName: msSFU30PosixMemberOf
attributeId: 1.2.840.113556.1.6.18.1.347
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 7bd76b92-3244-438a-ada6-24f5ea34381e
systemOnly: FALSE
searchFlags: 0
linkID: 2031
systemFlags: FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.664 Attribute msSFU30ResultAttributes

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Result-Attributes
ldapDisplayName: msSFU30ResultAttributes
attributeId: 1.2.840.113556.1.6.18.1.305
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: e167b0b6-4045-4433-ac35-53f972d45cba
systemOnly: FALSE
```

```
searchFlags: 0
rangeUpper: 1024
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.665 Attribute msSFU30SearchAttributes

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Search-Attributes
ldapDisplayName: msSFU30SearchAttributes
attributeId: 1.2.840.113556.1.6.18.1.304
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: ef9a2df0-2e57-48c8-8950-0cc674004733
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1024
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.666 Attribute msSFU30SearchContainer

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Search-Container
ldapDisplayName: msSFU30SearchContainer
attributeId: 1.2.840.113556.1.6.18.1.300
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 27eebfa2-fbeb-4f8e-aad6-c50247994291
systemOnly: FALSE
searchFlags: 0
rangeUpper: 2048
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.667 Attribute msSFU30YpServers

This attribute is used by Windows Services for UNIX.

```
cn: msSFU-30-Yp-Servers
ldapDisplayName: msSFU30YpServers
attributeId: 1.2.840.113556.1.6.18.1.341
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: 084a944b-e150-4bfe-9345-40e1aedaebba
systemOnly: FALSE
searchFlags: fATTINDEX
rangeUpper: 20480
```

Version-Specific Behavior: First implemented on Windows Server 2003 R2.

2.668 Attribute msSPP-ConfigLicense

This attribute contains the product-key configuration license used during online/phone activation of the Active Directory forest.

```
cn: ms-SPP-Config-License
ldapDisplayName: msSPP-ConfigLicense
attributeId: 1.2.840.113556.1.4.2087
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeUpper: 5242880
schemaIdGuid: 0353c4b5-d199-40b0-b3c5-deb32fd9ec06
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.669 Attribute msSPP-ConfirmationId

This attribute contains the confirmation ID (CID) used for phone activation of the Active Directory forest.

```
cn: ms-SPP-Confirmation-Id
ldapDisplayName: msSPP-ConfirmationId
attributeId: 1.2.840.113556.1.4.2084
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeUpper: 512
schemaIdGuid: 6e8797c4-acda-4a49-8740-b0bd05a9b831
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.670 Attribute msSPP-CSVLKPartialProductKey

This attribute contains the last five characters of the CSVLK product key used to create the activation object.

```
cn: ms-SPP-CSVLK-Partial-Product-Key
ldapDisplayName: msSPP-CSVLKPartialProductKey
attributeId: 1.2.840.113556.1.4.2106
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeLower: 5
rangeUpper: 5
schemaIdGuid: a601b091-8652-453a-b386-87ad239b7c08
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.671 Attribute msSPP-CSVLKPid

This attribute contains the ID of the CSVLK product key used to create the activation object.

```
cn: ms-SPP-CSVLK-Pid
ldapDisplayName: msSPP-CSVLKPid
attributeId: 1.2.840.113556.1.4.2105
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeUpper: 512
schemaIdGuid: b47f510d-6b50-47e1-b556-772c79e4ffc4
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.672 Attribute msSPP-CSVLKSkuId

This attribute contains the SKU ID of the CSVLK product key used to create the activation object.

```
cn: ms-SPP-CSVLK-Sku-Id
ldapDisplayName: msSPP-CSVLKSkuId
attributeId: 1.2.840.113556.1.4.2081
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeLower: 16
rangeUpper: 16
schemaIdGuid: 9684f739-7b78-476d-8d74-31ad7692eef4
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.673 Attribute msSPP-InstallationId

This attribute contains the installation ID (IID) used for phone activation of the Active Directory forest.

```
cn: ms-SPP-Installation-Id
ldapDisplayName: msSPP-InstallationId
attributeId: 1.2.840.113556.1.4.2083
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeUpper: 512
schemaIdGuid: 69bfb114-407b-4739-a213-c663802b3e37
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.674 Attribute msSPP-IssuanceLicense

This attribute contains the issuance license used during online/phone activation of the Active Directory forest.

```
cn: ms-SPP-Issuance-License
ldapDisplayName: msSPP-IssuanceLicense
attributeId: 1.2.840.113556.1.4.2088
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeUpper: 5242880
schemaIdGuid: 1075b3a1-bbaf-49d2-ae8d-c4f25c823303
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.675 Attribute msSPP-KMSIds

This attribute holds the KMS IDs enabled by the activation object.

```
cn: ms-SPP-KMS-Ids
ldapDisplayName: msSPP-KMSIds
attributeId: 1.2.840.113556.1.4.2082
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 16
rangeUpper: 16
schemaIdGuid: 9b663eda-3542-46d6-9df0-314025af2bac
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.676 Attribute msSPP-OnlineLicense

This attribute contains the license that is used during online activation of the Active Directory forest.

```
cn: ms-SPP-Online-License
ldapDisplayName: msSPP-OnlineLicense
attributeId: 1.2.840.113556.1.4.2085
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeUpper: 5242880
schemaIdGuid: 098f368e-4812-48cd-afb7-a136b96807ed
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.677 Attribute msSPP-PhoneLicense

This attribute contains the license that is used during phone activation of the Active Directory forest.

```
cn: ms-SPP-Phone-License
ldapDisplayName: msSPP-PhoneLicense
attributeId: 1.2.840.113556.1.4.2086
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: 0
rangeUpper: 5242880
schemaIdGuid: 67e4d912-f362-4052-8c79-42f45ba7b221
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.678 Attribute msTAPI-ConferenceBlob

This attribute is used by the Telephonic Application Programming Interface (TAPI). For more information, see [RFC2327].

```
cn: ms-TAPI-Conference-Blob
ldapDisplayName: msTAPI-ConferenceBlob
attributeId: 1.2.840.113556.1.4.1700
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 4cc4601e-7201-4141-abc8-3e529ae88863
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.679 Attribute msTAPI-IpAddress

This attribute is used by TAPI. For more information, see [RFC2327].

```
cn: ms-TAPI-Ip-Address
ldapDisplayName: msTAPI-IpAddress
attributeId: 1.2.840.113556.1.4.1701
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: efd7d7f7-178e-4767-87fa-f8a16b840544
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.680 Attribute msTAPI-ProtocolId

This attribute is used by TAPI. For more information, see [RFC2327].

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```
cn: ms-TAPI-Protocol-Id
ldapDisplayName: msTAPI-ProtocolId
attributeId: 1.2.840.113556.1.4.1699
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 89c1ebcf-7a5f-41fd-99ca-c900b32299ab
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.681 Attribute msTAPI-uid

This attribute is used by TAPI. For more information, see [RFC2327].

```
cn: ms-TAPI-Unique-Identifier
ldapDisplayName: msTAPI-uid
attributeId: 1.2.840.113556.1.4.1698
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 70a4e7ea-b3b9-4643-8918-e6dd2471bfd4
systemOnly: FALSE
searchFlags: 0
rangeUpper: 256
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.682 Attribute msTPM-OwnerInformation

This attribute contains the owner information of a particular trusted platform module (TPM).

```
cn: ms-TPM-OwnerInformation
ldapDisplayName: msTPM-OwnerInformation
attributeId: 1.2.840.113556.1.4.1966
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: aa4e1a6d-550d-4e05-8c35-4afcb917a9fe
searchFlags: fPRESERVEONDELETE | fCOPY | fCONFIDENTIAL |
 fRODCFilteredAttribute
rangeUpper: 128
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.683 Attribute msTPM-OwnerInformationTemp

This attribute contains temporary owner information for a particular TPM.

```
cn: ms-TPM-Owner-Information-Temp
ldapDisplayName: msTPM-OwnerInformationTemp
attributeId: 1.2.840.113556.1.4.2108
attributeSyntax: 2.5.5.12
omSyntax: 64
```

```
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fRODCFilteredAttribute | fCONFIDENTIAL
rangeUpper: 128
schemaIdGuid: c894809d-b513-4ff8-8811-f4f43f5ac7bc
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.684 Attribute msTPM-SrkPubThumbprint

This attribute contains the thumbprint of the SrkPub corresponding to a particular TPM. This thumbprint helps to index the TPM devices in the directory.

```
cn: ms-TPM-Srk-Pub-Thumbprint
ldapDisplayName: msTPM-SrkPubThumbprint
attributeId: 1.2.840.113556.1.4.2107
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE | fPDNTATTINDEX | fATTINDEX
rangeUpper: 20
schemaIdGuid: 19d706eb-4d76-44a2-85d6-1c342be3be37
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.685 Attribute msTPM-TpmInformationForComputer

This attribute links a computer object to a TPM object.

```
cn: ms-TPM-Tpm-Information-For-Computer
ldapDisplayName: msTPM-TpmInformationForComputer
attributeId: 1.2.840.113556.1.4.2109
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: TRUE
systemOnly: FALSE
searchFlags: fCOPY
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: ea1b7b93-5e48-46d5-bc6c-4df4fda78a35
linkID: 2182
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.686 Attribute msTPM-TpmInformationForComputerBL

This attribute links a TPM object to the computer objects associated with it.

```
cn: ms-TPM-Tpm-Information-For-Computer-BL
ldapDisplayName: msTPM-TpmInformationForComputerBL
attributeId: 1.2.840.113556.1.4.2110
attributeSyntax: 2.5.5.1
omSyntax: 127
isSingleValued: FALSE
systemOnly: TRUE
searchFlags: 0
```

```
omObjectClass: 1.3.12.2.1011.28.0.714
schemaIdGuid: 14fa84c9-8ecd-4348-bc91-6d3ced472ab7
linkID: 2183
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.687 Attribute msTSAllowLogon

This attribute specifies whether the user is allowed to log on to the terminal server. The value is 1 if logon is allowed or 0 if logon is not allowed.

```
cn: ms-TS-Allow-Logon
ldapDisplayName: msTSAllowLogon
attributeId: 1.2.840.113556.1.4.1979
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 3a0cd464-bc54-40e7-93ae-a646a6ecc4b4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.688 Attribute msTSBrokenConnectionAction

This attribute specifies the action to take when a Terminal Services session limit is reached. The value is 1 if the client session is to be terminated or 0 if the client session is to be disconnected.

```
cn: ms-TS-Broken-Connection-Action
ldapDisplayName: msTSBrokenConnectionAction
attributeId: 1.2.840.113556.1.4.1985
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 1cf41bba-5604-463e-94d6-1a1287b72ca3
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.689 Attribute msTSConnectClientDrives

This attribute specifies whether to reconnect to mapped client drives at logon. The value is 1 if reconnection is enabled or 0 if reconnection is disabled.

```
cn: ms-TS-Connect-Client-Drives
ldapDisplayName: msTSConnectClientDrives
attributeId: 1.2.840.113556.1.4.1986
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 23572aaf-29dd-44ea-b0fa-7e8438b9a4a3
systemOnly: FALSE
searchFlags: 0
```

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.690 Attribute msTSConnectPrinterDrives

This attribute specifies whether to reconnect to mapped client printers at logon. The value is 1 if reconnection is enabled or 0 if reconnection is disabled.

```
cn: ms-TS-Connect-Printer-Drives
ldapDisplayName: msTSConnectPrinterDrives
attributeId: 1.2.840.113556.1.4.1987
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 8ce6a937-871b-4c92-b285-d99d4036681c
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.691 Attribute msTSDefaultToMainPrinter

This attribute specifies whether to print automatically to the client's default printer. The value is 1 if printing to the client's default printer is enabled or 0 if it is disabled.

```
cn: ms-TS-Default-To-Main-Printer
ldapDisplayName: msTSDefaultToMainPrinter
attributeId: 1.2.840.113556.1.4.1988
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: c0ffe2bd-cacf-4dc7-88d5-61e9e95766f6
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.692 Attribute msTSEndpointData

This attribute represents the virtual machine name for a machine.

```
cn: ms-TS-Endpoint-Data
ldapDisplayName: msTSEndpointData
attributeId: 1.2.840.113556.1.4.2070
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 40e1c407-4344-40f3-ab43-3625a34a63a2
systemOnly: FALSE
rangeLower: 0
rangeUpper: 32767
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.693 Attribute msTSEndpointPlugin

This attribute represents the name of the plugin for the terminal server connection.

```
cn: ms-TS-Endpoint-Plugin
ldapDisplayName: msTSEndpointPlugin
attributeId: 1.2.840.113556.1.4.2072
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 3c08b569-801f-4158-b17b-e363d6ae696a
systemOnly: FALSE
rangeLower: 0
rangeUpper: 32767
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.694 Attribute msTSEndpointType

This attribute defines whether the machine is a physical machine or a virtual machine.

```
cn: ms-TS-Endpoint-Type
ldapDisplayName: msTSEndpointType
attributeId: 1.2.840.113556.1.4.2071
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 377ade80-e2d8-46c5-9bcd-6d9dec93b35e
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.695 Attribute msTSExpireDate

This attribute specifies the expiration date of the Terminal Services session per user Client Address License (CAL).

```
cn: MS-TS-ExpireDate
ldapDisplayName: msTSExpireDate
attributeId: 1.2.840.113556.1.4.1993
attributeSyntax: 2.5.5.11
omSyntax: 24
isSingleValued: TRUE
schemaIdGuid: 70004ef5-25c3-446a-97c8-996ae8566776
systemOnly: FALSE
searchFlags: fATTINDEX
attributeSecurityGuid: 5805bc62-bdc9-4428-a5e2-856a0f4c185e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.696 Attribute msTSExpireDate2

This attribute specifies the expiration date of the second Terminal Services session per user CAL.

```
cn: MS-TS-ExpireDate2
ldapDisplayName: msTSExpireDate2
attributeId: 1.2.840.113556.1.4.2000
attributeSyntax: 2.5.5.11
omSyntax: 24
isSingleValued: TRUE
schemaIdGuid: 54dfcf71-bc3f-4f0b-9d5a-4b2476bb8925
systemOnly: FALSE
searchFlags: fATTINDEX
attributeSecurityGuid: 5805bc62-bdc9-4428-a5e2-856a0f4c185e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.697 Attribute msTSExpireDate3

This attribute specifies the expiration date of the third Terminal Services session per user CAL.

```
cn: MS-TS-ExpireDate3
ldapDisplayName: msTSExpireDate3
attributeId: 1.2.840.113556.1.4.2003
attributeSyntax: 2.5.5.11
omSyntax: 24
isSingleValued: TRUE
schemaIdGuid: 41bc7f04-be72-4930-bd10-1f3439412387
systemOnly: FALSE
searchFlags: fATTINDEX
attributeSecurityGuid: 5805bc62-bdc9-4428-a5e2-856a0f4c185e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.698 Attribute msTSExpireDate4

This attribute specifies the expiration date of the fourth Terminal Services session per user CAL.

```
cn: MS-TS-ExpireDate4
ldapDisplayName: msTSExpireDate4
attributeId: 1.2.840.113556.1.4.2006
attributeSyntax: 2.5.5.11
omSyntax: 24
isSingleValued: TRUE
schemaIdGuid: 5e11dc43-204a-4faf-a008-6863621c6f5f
systemOnly: FALSE
searchFlags: fATTINDEX
attributeSecurityGuid: 5805bc62-bdc9-4428-a5e2-856a0f4c185e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
showInAdvancedViewOnly: TRUE
```

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

2.699 Attribute msTSHomeDirectory

This attribute specifies the home directory for the user. Each user on a terminal server has a unique home directory. This ensures that application information is stored separately for each user in a multiuser environment. To set a home directory on the local computer, the implementer specifies a local path; for example, C:\Path. To set a home directory in a network environment, the implementer first sets the TerminalServicesHomeDrive property, and then sets this property to a Universal Naming Convention (UNC) path.

```
cn: ms-TS-Home-Directory
ldapDisplayName: msTSHomeDirectory
attributeId: 1.2.840.113556.1.4.1977
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 5d3510f0-c4e7-4122-b91f-a20add90e246
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.700 Attribute msTSHomeDrive

This attribute specifies a home drive for the user. In a network environment, this property is a string containing a drive specification (a drive letter followed by a colon) to which the UNC path specified in the TerminalServicesHomeDirectory property is mapped. To set a home directory in a network environment, the implementer first sets this property, and then sets the TerminalServicesHomeDirectory property.

```
cn: ms-TS-Home-Drive
ldapDisplayName: msTSHomeDrive
attributeId: 1.2.840.113556.1.4.1978
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 5f0a24d9-dffa-4cd9-acbf-a0680c03731e
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.701 Attribute msTSInitialProgram

This attribute specifies the path and file name of the application that the user wants to start automatically when the user logs on to the terminal server. To set an initial application to start when the user logs on, the implementer first sets this property, and then sets the TerminalServicesWorkDirectory property. If the implementer sets only the TerminalServicesInitialProgram property, the application starts in the user's session in the default user directory.

```
cn: ms-TS-Initial-Program
ldapDisplayName: msTSInitialProgram
```

```
attributeId: 1.2.840.113556.1.4.1990
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 9201ac6f-1d69-4dfb-802e-d95510109599
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.702 Attribute msTSLicenseVersion

This attribute specifies the version of the Terminal Services session per user CAL.

```
cn: MS-TS-LicenseVersion
ldapDisplayName: msTSLicenseVersion
attributeId: 1.2.840.113556.1.4.1994
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 0ae94a89-372f-4df2-ae8a-c64a2bc47278
systemOnly: FALSE
searchFlags: fATTINDEX
attributeSecurityGuid: 5805bc62-bdc9-4428-a5e2-856a0f4c185e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.703 Attribute msTSLicenseVersion2

This attribute specifies the version of the second Terminal Services session per user CAL.

```
cn: MS-TS-LicenseVersion2
ldapDisplayName: msTSLicenseVersion2
attributeId: 1.2.840.113556.1.4.2001
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 4b0df103-8d97-45d9-ad69-85c3080ba4e7
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 0
rangeUpper: 255
attributeSecurityGuid: 5805bc62-bdc9-4428-a5e2-856a0f4c185e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.704 Attribute msTSLicenseVersion3

This attribute specifies the version of the third Terminal Services session per user CAL.

```
cn: MS-TS-LicenseVersion3
ldapDisplayName: msTSLicenseVersion3
attributeId: 1.2.840.113556.1.4.2004
attributeSyntax: 2.5.5.12
```

```
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: f8ba8f81-4cab-4973-a3c8-3a6da62a5e31
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 0
rangeUpper: 255
attributeSecurityGuid: 5805bc62-bdc9-4428-a5e2-856a0f4c185e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.705 Attribute msTSLicenseVersion4

This attribute specifies the version of the fourth Terminal Services session per user CAL.

```
cn: MS-TS-LicenseVersion4
ldapDisplayName: msTSLicenseVersion4
attributeId: 1.2.840.113556.1.4.2007
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 70ca5d97-2304-490a-8a27-52678c8d2095
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 0
rangeUpper: 255
attributeSecurityGuid: 5805bc62-bdc9-4428-a5e2-856a0f4c185e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.706 Attribute msTSLSProperty01

This attribute is a placeholder for Terminal Server License Server Property 01.

```
cn: MS-TSLS-Property01
ldapDisplayName: msTSLSProperty01
attributeId: 1.2.840.113556.1.4.2009
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 0
rangeUpper: 32767
schemaIdGuid: 87e53590-971d-4a52-955b-4794d15a84ae
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.707 Attribute msTSLSProperty02

This attribute is a placeholder for Terminal Server License Server Property 02.

```
cn: MS-TSLS-Property02
ldapDisplayName: msTSLSProperty02
attributeId: 1.2.840.113556.1.4.2010
attributeSyntax: 2.5.5.12
```

```
omSyntax: 64
isSingleValued: FALSE
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 0
rangeUpper: 32767
schemaIdGuid: 47c77bb0-316e-4e2f-97f1-0d4c48fca9dd
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.708 Attribute msTSManagingLS

This attribute specifies the issuer name of the Terminal Services session per user CAL.

```
cn: MS-TS-ManagingLS
ldapDisplayName: msTSManagingLS
attributeId: 1.2.840.113556.1.4.1995
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: f3bcc547-85b0-432c-9ac0-304506bf2c83
systemOnly: FALSE
searchFlags: fATTINDEX
attributeSecurityGuid: 5805bc62-bdc9-4428-a5e2-856a0f4c185e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.709 Attribute msTSManagingLS2

This attribute specifies the issuer name of the second Terminal Services session per user CAL.

```
cn: MS-TS-ManagingLS2
ldapDisplayName: msTSManagingLS2
attributeId: 1.2.840.113556.1.4.2002
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
rangeLower: 0
rangeUpper: 255
schemaIdGuid: 349f0757-51bd-4fc8-9d66-3eceea8a25be
searchFlags: fATTINDEX
attributeSecurityGuid: 5805bc62-bdc9-4428-a5e2-856a0f4c185e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.710 Attribute msTSManagingLS3

This attribute specifies the issuer name of the third Terminal Services session per user CAL.

```
cn: MS-TS-ManagingLS3
ldapDisplayName: msTSManagingLS3
attributeId: 1.2.840.113556.1.4.2005
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
```

```
systemOnly: FALSE
rangeLower: 0
rangeUpper: 255
schemaIdGuid: fad5dcc1-2130-4c87-a118-75322cd67050
searchFlags: fATTINDEX
attributeSecurityGuid: 5805bc62-bdc9-4428-a5e2-856a0f4c185e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.711 Attribute msTSManagingLS4

This attribute specifies the issuer name of the fourth Terminal Services session per user CAL.

```
cn: MS-TS-ManagingLS4
ldapDisplayName: msTSManagingLS4
attributeId: 1.2.840.113556.1.4.2008
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
systemOnly: FALSE
rangeLower: 0
rangeUpper: 255
schemaIdGuid: f7a3b6a0-2107-4140-b306-75cb521731e5
searchFlags: fATTINDEX
attributeSecurityGuid: 5805bc62-bdc9-4428-a5e2-856a0f4c185e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.712 Attribute msTSMaxConnectionTime

This attribute specifies the maximum duration (in minutes) of the Terminal Services session. After the specified number of minutes have elapsed, the session can be disconnected or terminated.

```
cn: ms-TS-Max-Connection-Time
ldapDisplayName: msTSMaxConnectionTime
attributeId: 1.2.840.113556.1.4.1982
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 1d960ee2-6464-4e95-a781-e3b5cd5f9588
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.713 Attribute msTSMaxDisconnectionTime

This attribute specifies the maximum amount of time (in minutes) that a disconnected Terminal Services session remains active on the terminal server. After the specified number of minutes have elapsed, the session is terminated.

```
cn: ms-TS-Max-Disconnection-Time
ldapDisplayName: msTSMaxDisconnectionTime
attributeId: 1.2.840.113556.1.4.1981
attributeSyntax: 2.5.5.9
```

```
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 326f7089-53d8-4784-b814-46d8535110d2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.714 Attribute msTSMaxIdleTime

This attribute specifies the maximum amount of time (in minutes) that the Terminal Services session can remain idle. After the specified number of minutes have elapsed, the session can be disconnected or terminated.

```
cn: ms-TS-Max-Idle-Time
ldapDisplayName: msTSMaxIdleTime
attributeId: 1.2.840.113556.1.4.1983
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ff739e9c-6bb7-460e-b221-e250f3de0f95
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.715 Attribute msTSPrimaryDesktop

This attribute links to the computer object of the primary desktop assigned to a user. If this attribute is empty, the user has no assigned desktop.

```
cn: ms-TS-Primary-Desktop
ldapDisplayName: msTSPrimaryDesktop
attributeId: 1.2.840.113556.1.4.2073
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
linkID: 2170
isSingleValued: TRUE
schemaIdGuid: 29259694-09e4-4237-9f72-9306ebe63ab2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.716 Attribute msTSPrimaryDesktopBL

This attribute is the back link attribute for attribute msTSPrimaryDesktop.

```
cn: ms-TS-Primary-Desktop-BL
ldapDisplayName: msTSPrimaryDesktopBL
attributeId: 1.2.840.113556.1.4.2074
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
```

```
linkID: 2171
isSingleValued: FALSE
schemaIdGuid: 9daadc18-40d1-4ed1-a2bf-6b9bf47d3daa
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

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

2.717 Attribute msTSProfilePath

This attribute specifies a roaming or mandatory profile path to use when the user logs on to the terminal server. The profile path is in the following network path format: "\\servername\profiles folder name\username".

```
cn: ms-TS-Profile-Path
ldapDisplayName: msTSProfilePath
attributeId: 1.2.840.113556.1.4.1976
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: e65c30db-316c-4060-a3a0-387b083f09cd
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.718 Attribute msTSProperty01

This attribute is a placeholder for Terminal Server Property 01.

```
cn: MS-TS-Property01
ldapDisplayName: msTSProperty01
attributeId: 1.2.840.113556.1.4.1991
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: faaea977-9655-49d7-853d-f27bb7aaca0f
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 0
rangeUpper: 32767
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.719 Attribute msTSProperty02

This attribute is a placeholder for Terminal Server Property 02.

```
cn: MS-TS-Property02
ldapDisplayName: msTSProperty02
attributeId: 1.2.840.113556.1.4.1992
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
```

```
schemaIdGuid: 3586f6ac-51b7-4978-ab42-f936463198e7
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 0
rangeUpper: 32767
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.720 Attribute msTSReconnectionAction

This attribute specifies whether to allow reconnection to a disconnected Terminal Services session from any client computer. The value is 1 if reconnection is allowed from the original client computer only, or 0 if reconnection from any client computer is allowed.

```
cn: ms-TS-Reconnection-Action
ldapDisplayName: msTSReconnectionAction
attributeId: 1.2.840.113556.1.4.1984
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 366ed7ca-3e18-4c7f-abae-351a01e4b4f7
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.721 Attribute msTSRemoteControl

This attribute specifies whether to allow remote observation or remote control of the user's Terminal Services session. The values are as follows:

- 0: Disable

- 1: EnableInputNotify

- 2: EnableInputNoNotify

- 3: EnableNoInputNotify

- 4: EnableNoInputNoNotify

For a description of these values, see the RemoteControl method of the Win32_TSRemoteControlSetting WMI class.

```
cn: ms-TS-Remote-Control
ldapDisplayName: msTSRemoteControl
attributeId: 1.2.840.113556.1.4.1980
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 15177226-8642-468b-8c48-03ddfd004982
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.722 Attribute msTSSecondaryDesktops

This attribute links to the computer objects of the secondary desktops that a user can be assigned.

```
cn: ms-TS-Secondary-Desktops
ldapDisplayName: msTSSecondaryDesktops
attributeId: 1.2.840.113556.1.4.2075
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
linkID: 2172
isSingleValued: FALSE
schemaIdGuid: f63aa29a-bb31-48e1-bfab-0a6c5a1d39c2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.723 Attribute msTSSecondaryDesktopBL

This attribute is the back link attribute for msTSSecondaryDesktops.

```
cn: ms-TS-Secondary-Desktop-BL
ldapDisplayName: msTSSecondaryDesktopBL
attributeId: 1.2.840.113556.1.4.2078
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
linkID: 2173
isSingleValued: FALSE
schemaIdGuid: 34b107af-a00a-455a-b139-dd1a1b12d8af
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_ATTR_NOT_REPLICATED | FLAG_SCHEMA_BASE_OBJECT
```

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

2.724 Attribute msTSWorkDirectory

This attribute specifies the working directory path for the user. To set an initial application to start when the user logs on to the terminal server, the implementer first sets the TerminalServicesInitialProgram property and then sets this property.

```
cn: ms-TS-Work-Directory
ldapDisplayName: msTSWorkDirectory
attributeId: 1.2.840.113556.1.4.1989
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: a744f666-3d3c-4cc8-834b-9d4f6f687b8b
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

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

2.725 Attribute msWMI-Author

This attribute is used by the Windows Management Instrumentation (WMI) Remote Protocol for network communication and specifies the author of an instance of a class.

```
cn: ms-WMI-Author
ldapDisplayName: msWMI-Author
attributeId: 1.2.840.113556.1.4.1623
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 6366c0c1-6972-4e66-b3a5-1d52ad0c0547
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.726 Attribute msWMI-ChangeDate

This attribute is used by the WMI Remote Protocol for network communication and specifies the last date that an object was changed.

```
cn: ms-WMI-ChangeDate
ldapDisplayName: msWMI-ChangeDate
attributeId: 1.2.840.113556.1.4.1624
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: f9cdf7a0-ec44-4937-a79b-cd91522b3aa8
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.727 Attribute msWMI-Class

This attribute is used by the WMI Remote Protocol for network communication and specifies the name of a WMI Class object in an associated encoding (for example, Win32_ComputerSystem).

```
cn: ms-WMI-Class
ldapDisplayName: msWMI-Class
attributeId: 1.2.840.113556.1.4.1676
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 90c1925f-4a24-4b07-b202-be32eb3c8b74
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.728 Attribute msWMI-ClassDefinition

This attribute is for the WMI Remote Protocol for network communication and specifies a class definition to be instated in some WMI namespace.

```
cn: ms-WMI-ClassDefinition
ldapDisplayName: msWMI-ClassDefinition
attributeId: 1.2.840.113556.1.4.1625
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 2b9c0ebc-c272-45cb-99d2-4d0e691632e0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.729 Attribute msWMI-CreationDate

This attribute is used by the WMI Remote Protocol for network communication and specifies the creation time of an instance.

```
cn: ms-WMI-CreationDate
ldapDisplayName: msWMI-CreationDate
attributeId: 1.2.840.113556.1.4.1626
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 748b0a2e-3351-4b3f-b171-2f17414ea779
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.730 Attribute msWMI-Genus

This attribute is used by the WMI Remote Protocol for network communication and specifies the object type of an encoding.

```
cn: ms-WMI-Genus
ldapDisplayName: msWMI-Genus
attributeId: 1.2.840.113556.1.4.1677
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 50c8673a-8f56-4614-9308-9e1340fb9af3
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.731 Attribute msWMI-ID

This attribute is used by the WMI Remote Protocol for network communication and specifies a unique ID for an object instance.

```
cn: ms-WMI-ID
ldapDisplayName: msWMI-ID
attributeId: 1.2.840.113556.1.4.1627
attributeSyntax: 2.5.5.12
```

```
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 9339a803-94b8-47f7-9123-a853b9ff7e45
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.732 Attribute msWMI-Int8Default

This attribute is used by the WMI Remote Protocol for network communication and specifies the default value for WMI 64-bit integer parameter objects.

```
cn: ms-WMI-int8Default
ldapDisplayName: msWMI-Int8Default
attributeId: 1.2.840.113556.1.4.1632
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: f4d8085a-8c5b-4785-959b-dc585566e445
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.733 Attribute msWMI-Int8Max

This attribute is used by the WMI Remote Protocol for network communication and specifies the maximum value for a WMI 64-bit integer parameter object.

```
cn: ms-WMI-int8Max
ldapDisplayName: msWMI-Int8Max
attributeId: 1.2.840.113556.1.4.1633
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: e3d8b547-003d-4946-a32b-dc7cedc96b74
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.734 Attribute msWMI-Int8Min

This attribute is used by the WMI Remote Protocol for network communication and specifies the minimum value for a WMI 64-bit integer parameter object.

```
cn: ms-WMI-int8Min
ldapDisplayName: msWMI-Int8Min
attributeId: 1.2.840.113556.1.4.1634
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: ed1489d1-54cc-4066-b368-a00daa2664f1
systemOnly: FALSE
```

```
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.735 Attribute msWMI-Int8ValidValues

This attribute is for the WMI Remote Protocol for network communication and specifies the valid values for a WMI 64-bit integer parameter object.

```
cn: ms-WMI-int8ValidValues
ldapDisplayName: msWMI-Int8ValidValues
attributeId: 1.2.840.113556.1.4.1635
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: FALSE
schemaIdGuid: 103519a9-c002-441b-981a-b0b3e012c803
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.736 Attribute msWMI-IntDefault

This attribute is used by the WMI Remote Protocol for network communication and specifies the default value for WMI 32-bit integer parameter objects.

```
cn: ms-WMI-intDefault
ldapDisplayName: msWMI-IntDefault
attributeId: 1.2.840.113556.1.4.1628
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 1b0c07f8-76dd-4060-a1e1-70084619dc90
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.737 Attribute msWMI-intFlags1

This attribute is used by the WMI Remote Protocol for network communication.

```
cn: ms-WMI-intFlags1
ldapDisplayName: msWMI-intFlags1
attributeId: 1.2.840.113556.1.4.1678
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 18e006b9-6445-48e3-9dcf-b5ecfbc4df8e
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.738 Attribute msWMI-intFlags2

This attribute is used by the WMI Remote Protocol for network communication.

```
cn: ms-WMI-intFlags2
ldapDisplayName: msWMI-intFlags2
attributeId: 1.2.840.113556.1.4.1679
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 075a42c9-c55a-45b1-ac93-eb086b31f610
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.739 Attribute msWMI-intFlags3

This attribute is used by the WMI Remote Protocol for network communication.

```
cn: ms-WMI-intFlags3
ldapDisplayName: msWMI-intFlags3
attributeId: 1.2.840.113556.1.4.1680
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: f29fa736-de09-4be4-b23a-e734c124bacc
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.740 Attribute msWMI-intFlags4

This attribute is used by the WMI Remote Protocol for network communication.

```
cn: ms-WMI-intFlags4
ldapDisplayName: msWMI-intFlags4
attributeId: 1.2.840.113556.1.4.1681
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bd74a7ac-c493-4c9c-bdfa-5c7b119ca6b2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.741 Attribute msWMI-IntMax

This attribute is used by the WMI Remote Protocol for network communication and specifies the maximum value for a WMI 32-bit integer parameter object.

```
cn: ms-WMI-intMax
```

```
ldapDisplayName: msWMI-IntMax
attributeId: 1.2.840.113556.1.4.1629
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: fb920c2c-f294-4426-8ac1-d24b42aa2bce
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.742 Attribute msWMI-IntMin

This attribute is used by the WMI Remote Protocol for network communication and specifies the minimum value for a WMI 32-bit integer parameter object.

```
cn: ms-WMI-intMin
ldapDisplayName: msWMI-IntMin
attributeId: 1.2.840.113556.1.4.1630
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 68c2e3ba-9837-4c70-98e0-f0c33695d023
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.743 Attribute msWMI-IntValidValues

This attribute is for the WMI Remote Protocol for network communication and specifies the valid values for a WMI 32-bit integer parameter object.

```
cn: ms-WMI-intValidValues
ldapDisplayName: msWMI-IntValidValues
attributeId: 1.2.840.113556.1.4.1631
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: FALSE
schemaIdGuid: 6af565f6-a749-4b72-9634-3c5d47e6b4e0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.744 Attribute msWMI-Mof

This attribute is used by the WMI Remote Protocol for network communication and specifies the Manage Operations Framework (MOF) definition of some WMI object.

```
cn: ms-WMI-Mof
ldapDisplayName: msWMI-Mof
attributeId: 1.2.840.113556.1.4.1638
attributeSyntax: 2.5.5.12
omSyntax: 64
```

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```
isSingleValued: TRUE
schemaIdGuid: 6736809f-2064-443e-a145-81262b1f1366
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.745 Attribute msWMI-Name

This attribute is used by the WMI Remote Protocol for network communication and specifies the friendly name for top-level policy objects.

```
cn: ms-WMI-Name
ldapDisplayName: msWMI-Name
attributeId: 1.2.840.113556.1.4.1639
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: c6c8ace5-7e81-42af-ad72-77412c5941c4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.746 Attribute msWMI-NormalizedClass

This attribute is used by the WMI Remote Protocol for network communication and specifies the name of a core WMI policy class.

```
cn: ms-WMI-NormalizedClass
ldapDisplayName: msWMI-NormalizedClass
attributeId: 1.2.840.113556.1.4.1640
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: eaba628f-eb8e-4fe9-83fc-693be695559b
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.747 Attribute msWMI-Parm1

This attribute is used by the WMI Remote Protocol for network communication.

```
cn: ms-WMI-Parm1
ldapDisplayName: msWMI-Parm1
attributeId: 1.2.840.113556.1.4.1682
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 27e81485-b1b0-4a8b-bedd-ce19a837e26e
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.748 Attribute msWMI-Parm2

This attribute is used by the WMI Remote Protocol for network communication.

```
cn: ms-WMI-Parm2
ldapDisplayName: msWMI-Parm2
attributeId: 1.2.840.113556.1.4.1683
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 0003508e-9c42-4a76-a8f4-38bf64bab0de
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.749 Attribute msWMI-Parm3

This attribute is used by the WMI Remote Protocol for network communication.

```
cn: ms-WMI-Parm3
ldapDisplayName: msWMI-Parm3
attributeId: 1.2.840.113556.1.4.1684
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 45958fb6-52bd-48ce-9f9f-c2712d9f2bfc
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.750 Attribute msWMI-Parm4

This attribute is used by the WMI Remote Protocol for network communication.

```
cn: ms-WMI-Parm4
ldapDisplayName: msWMI-Parm4
attributeId: 1.2.840.113556.1.4.1685
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 3800d5a3-f1ce-4b82-a59a-1528ea795f59
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.751 Attribute msWMI-PropertyName

This attribute is used by the WMI Remote Protocol for network communication and specifies the target policy object name for a parameter object.

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```
cn: ms-WMI-PropertyName
ldapDisplayName: msWMI-PropertyName
attributeId: 1.2.840.113556.1.4.1641
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: ab920883-e7f8-4d72-b4a0-c0449897509d
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.752 Attribute msWMI-Query

This attribute is used by the WMI Remote Protocol for network communication and specifies a single WMI Query Language (WQL) query.

```
cn: ms-WMI-Query
ldapDisplayName: msWMI-Query
attributeId: 1.2.840.113556.1.4.1642
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 65fff93e-35e3-45a3-85ae-876c6718297f
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.753 Attribute msWMI-QueryLanguage

This attribute is used by the WMI Remote Protocol for network communication and specifies a WMI Query Language (WQL).

```
cn: ms-WMI-QueryLanguage
ldapDisplayName: msWMI-QueryLanguage
attributeId: 1.2.840.113556.1.4.1643
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 7d3cfa98-c17b-4254-8bd7-4de9b932a345
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.754 Attribute msWMI-ScopeGuid

This attribute is used by the WMI Remote Protocol for network communication and specifies the GUID for the scope in which the associated encoding is located.

```
cn: ms-WMI-ScopeGuid
ldapDisplayName: msWMI-ScopeGuid
attributeId: 1.2.840.113556.1.4.1686
attributeSyntax: 2.5.5.12
```

```
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 87b78d51-405f-4b7f-80ed-2bd28786f48d
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.755 Attribute msWMI-SourceOrganization

This attribute is used by the WMI Remote Protocol for network communication and specifies the business organization that initially created a policy object.

```
cn: ms-WMI-SourceOrganization
ldapDisplayName: msWMI-SourceOrganization
attributeId: 1.2.840.113556.1.4.1644
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 34f7ed6c-615d-418d-aa00-549a7d7be03e
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.756 Attribute msWMI-StringDefault

This attribute is used by the WMI Remote Protocol for network communication and specifies the default string setting for a set of string parameter objects.

```
cn: ms-WMI-stringDefault
ldapDisplayName: msWMI-StringDefault
attributeId: 1.2.840.113556.1.4.1636
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 152e42b6-37c5-4f55-ab48-1606384a9aea
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.757 Attribute msWMI-StringValidValues

This attribute is used by the WMI Remote Protocol for network communication and specifies the set of strings belonging to a string set parameter object.

```
cn: ms-WMI-stringValidValues
ldapDisplayName: msWMI-StringValidValues
attributeId: 1.2.840.113556.1.4.1637
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 37609d31-a2bf-4b58-8f53-2b64e57a076d
systemOnly: FALSE
```

```
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.758 Attribute msWMI-TargetClass

This attribute is used by the WMI Remote Protocol for network communication and specifies the class name of the policy object to be created.

```
cn: ms-WMI-TargetClass
ldapDisplayName: msWMI-TargetClass
attributeId: 1.2.840.113556.1.4.1645
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 95b6d8d6-c9e8-4661-a2bc-6a5cabc04c62
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.759 Attribute msWMI-TargetNameSpace

This attribute is used by the WMI Remote Protocol for network communication and specifies the namespace in which the object is to be created.

```
cn: ms-WMI-TargetNameSpace
ldapDisplayName: msWMI-TargetNameSpace
attributeId: 1.2.840.113556.1.4.1646
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 1c4ab61f-3420-44e5-849d-8b5dbf60feb7
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.760 Attribute msWMI-TargetObject

This attribute is used by the WMI Remote Protocol for network communication and specifies the one or more binary sequences representing compiled WMI objects.

```
cn: ms-WMI-TargetObject
ldapDisplayName: msWMI-TargetObject
attributeId: 1.2.840.113556.1.4.1647
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: c44f67a5-7de5-4a1f-92d9-662b57364b77
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.761 Attribute msWMI-TargetPath

This attribute is used by the WMI Remote Protocol for network communication and specifies the list of key/value pairs that uniquely identify a WMI object.

```
cn: ms-WMI-TargetPath
ldapDisplayName: msWMI-TargetPath
attributeId: 1.2.840.113556.1.4.1648
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 5006a79a-6bfe-4561-9f52-13cf4dd3e560
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.762 Attribute msWMI-TargetType

This attribute is used by the WMI Remote Protocol for network communication and specifies the WMI reference to a type definition for a policy object.

```
cn: ms-WMI-TargetType
ldapDisplayName: msWMI-TargetType
attributeId: 1.2.840.113556.1.4.1649
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: ca2a281e-262b-4ff7-b419-bc123352a4e9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: First implemented on Windows Server 2003.

2.763 Attribute mustContain

This attribute is used by Active Directory to specify the list of mandatory attributes for a class.

```
cn: Must-Contain
ldapDisplayName: mustContain
attributeId: 1.2.840.113556.1.2.24
attributeSyntax: 2.5.5.2
omSyntax: 6
isSingleValued: FALSE
schemaIdGuid: bf9679d3-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: First implemented on Windows 2000 Server.

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