

[MS-ADTS]: Active Directory Technical Specification

This topic lists the Errata found in the MS-ADTS document since it was last published. Since this topic is updated frequently, we recommend that you subscribe to these RSS or Atom feeds to receive update notifications.



Errata are subject to the same terms as the Open Specifications documentation referenced.

Errata below are for Protocol Document Version [V42.0 – 2015/10/16](#).

Errata Published*	Description												
2016/06/27	<p>In Section 6.1.6.7.9, trustAttributes, added a reference to KB article 3155495 for Windows Server 2012 R2.</p> <p>Changed from:</p> <table border="1" data-bbox="407 793 1414 974"> <thead> <tr> <th>Name and value</th> <th>Description and restrictions/special notes</th> </tr> </thead> <tbody> <tr> <td>...</td> <td>...</td> </tr> <tr> <td>TAPT (TRUST_ATTRIBUTE_PIM_TRUST) 0x00000400</td> <td>Evaluated only on Windows Server 2016</td> </tr> </tbody> </table> <p>Changed to:</p> <table border="1" data-bbox="407 1083 1414 1283"> <thead> <tr> <th>Name and value</th> <th>Description and restrictions/special notes</th> </tr> </thead> <tbody> <tr> <td>...</td> <td>...</td> </tr> <tr> <td>TAPT (TRUST_ATTRIBUTE_PIM_TRUST) 0x00000400</td> <td>Evaluated on Windows Server 2012 R2 only with [MSKB-3155495] installed. Also evaluated on Windows Server 2016.</td> </tr> </tbody> </table>	Name and value	Description and restrictions/special notes	TAPT (TRUST_ATTRIBUTE_PIM_TRUST) 0x00000400	Evaluated only on Windows Server 2016	Name and value	Description and restrictions/special notes	TAPT (TRUST_ATTRIBUTE_PIM_TRUST) 0x00000400	Evaluated on Windows Server 2012 R2 only with [MSKB-3155495] installed. Also evaluated on Windows Server 2016.
Name and value	Description and restrictions/special notes												
...	...												
TAPT (TRUST_ATTRIBUTE_PIM_TRUST) 0x00000400	Evaluated only on Windows Server 2016												
Name and value	Description and restrictions/special notes												
...	...												
TAPT (TRUST_ATTRIBUTE_PIM_TRUST) 0x00000400	Evaluated on Windows Server 2012 R2 only with [MSKB-3155495] installed. Also evaluated on Windows Server 2016.												
2016/04/18	<p>In several sections, removed references to [MSASRT] in favor of [MS-UCODEREF].</p> <p>In Section 1.2.1, Normative References, removed the reference for [MSASRT].</p> <p>In Section 6.5.1, String Comparison by Using Sort Keys, removed the reference for [MSASRT] in the first sentence.</p> <p>Changed from:</p> <p>To compare strings, the implementer needs to get a "sort key" for each string (see [MSASRT]). A binary comparison of the sort keys can then be used to arrange the strings in any desired order.</p> <p>...</p> <p>Changed to:</p> <p>To compare strings, the implementer needs to get a "sort key" for each string. A binary comparison of the sort keys can then be used to arrange the strings in any desired order.</p> <p>...</p>												

Errata Published*	Description
2016/02/22	<p>In Section 3.1.1.3.2.40, spnRegistrationResult, updated the description of the value for spnRegistrationResult for various Windows versions.</p> <p>Changed from:</p> <p>When running as AD DS, this value is 0. When running as AD LDS, if the DC was unable to register its service principal names (SPNs) ([MS-DRSR] section 2.2.2), this attribute returns the Windows error code associated with the failure. Otherwise, it returns zero.</p> <p>Note When running as AD DS on Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, or Windows Server 2016 Technical Preview, this value is 21.</p> <p>Changed to:</p> <p>When running as AD DS on Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, or Windows Server 2016 Technical Preview, this value is 0. When running as AD LDS, if the DC was unable to register its service principal names (SPNs) ([MS-DRSR] section 2.2.2), this attribute returns the Windows error code associated with the failure. Otherwise, it returns zero.</p> <p>Note When running as AD DS on Windows Server 2003 or Windows Server 2008, this value is the Windows error code that is associated with the failure if the DC was unable to register its service principal names (SPNs), or zero upon success.</p>
2016/02/08	<p>In Section 3.1.1.12.1.7, DomainDescriptionElements, corrected the element names InterDomainTrustAccounts and InterDomainTrustAccountDescription to InterdomainTrustAccounts and InterdomainTrustAccountDescription.</p>
2016/01/25	<p>In Section 3.1.1.3.4.1.6, LDAP_SERVER_GET_STATS_OID, moved the tag values from before the type to after the type in the CHOICE encoding to align with the ASN standard.</p> <p>Changed from:</p> <pre> StatsResponseValueV4 ::= SEQUENCE OF SEQUENCE { statisticName OCTET STRING CHOICE { [0] intStatistic INTEGER [1] stringStatistic OCTET STRING } } </pre> <p>Changed to:</p> <pre> StatsResponseValueV4 ::= SEQUENCE OF SEQUENCE { statisticName OCTET STRING CHOICE { intStatistic [0] INTEGER stringStatistic [1] OCTET STRING } } </pre>
2016/01/25	<p>In two sections, updated the minimum required forest revisions and domain revisions for installed and upgraded DCs.</p>

Errata Published*	Description																																												
	<p data-bbox="391 275 971 300">In Section 3.1.1.10.1, Forest Revision, changed from:</p> <table border="1" data-bbox="407 338 1414 642"> <thead> <tr> <th data-bbox="407 338 919 390">DC functional level</th> <th data-bbox="919 338 1414 390">Minimum required forest revision</th> </tr> </thead> <tbody> <tr> <td data-bbox="407 390 919 443">...</td> <td data-bbox="919 390 1414 443">...</td> </tr> <tr> <td data-bbox="407 443 919 495">DS_BEHAVIOR_WIN2008</td> <td data-bbox="919 443 1414 495">2.9</td> </tr> <tr> <td data-bbox="407 495 919 548">DS_BEHAVIOR_WIN2008R2</td> <td data-bbox="919 495 1414 548">5.9</td> </tr> <tr> <td data-bbox="407 548 919 600">DS_BEHAVIOR_WIN2012</td> <td data-bbox="919 548 1414 600">10.9</td> </tr> <tr> <td data-bbox="407 600 919 642">DS_BEHAVIOR_WIN2012R2</td> <td data-bbox="919 600 1414 642">12.10</td> </tr> </tbody> </table> <p data-bbox="391 722 524 747">Changed to:</p> <table border="1" data-bbox="407 751 1414 1056"> <thead> <tr> <th data-bbox="407 751 919 804">DC functional level</th> <th data-bbox="919 751 1414 804">Minimum required forest revision</th> </tr> </thead> <tbody> <tr> <td data-bbox="407 804 919 856">...</td> <td data-bbox="919 804 1414 856">...</td> </tr> <tr> <td data-bbox="407 856 919 909">DS_BEHAVIOR_WIN2008</td> <td data-bbox="919 856 1414 909">2.10</td> </tr> <tr> <td data-bbox="407 909 919 961">DS_BEHAVIOR_WIN2008R2</td> <td data-bbox="919 909 1414 961">5.10</td> </tr> <tr> <td data-bbox="407 961 919 1014">DS_BEHAVIOR_WIN2012</td> <td data-bbox="919 961 1414 1014">11.10</td> </tr> <tr> <td data-bbox="407 1014 919 1056">DS_BEHAVIOR_WIN2012R2</td> <td data-bbox="919 1014 1414 1056">15.10</td> </tr> </tbody> </table> <p data-bbox="391 1102 1385 1205">Note The preceding table specifies the minimum required forest revisions for the case of a freshly-installed DC. In the case of a DC that has been upgraded from an older version of Windows Server, some of the minimum required forest revisions are different, depending on the DC functional level. These differences are shown in the following table.</p> <table border="1" data-bbox="407 1245 1414 1497"> <thead> <tr> <th data-bbox="407 1245 919 1297">DC functional level,</th> <th data-bbox="919 1245 1414 1297">Minimum required forest revision</th> </tr> </thead> <tbody> <tr> <td data-bbox="407 1297 919 1350">DS_BEHAVIOR_WIN2008,</td> <td data-bbox="919 1297 1414 1350">2.9</td> </tr> <tr> <td data-bbox="407 1350 919 1402">DS_BEHAVIOR_WIN2008R2,</td> <td data-bbox="919 1350 1414 1402">5.9</td> </tr> <tr> <td data-bbox="407 1402 919 1455">DS_BEHAVIOR_WIN2012,</td> <td data-bbox="919 1402 1414 1455">11.9</td> </tr> <tr> <td data-bbox="407 1455 919 1497">DS_BEHAVIOR_WIN2012R2,</td> <td data-bbox="919 1455 1414 1497">15.9</td> </tr> </tbody> </table> <p data-bbox="391 1543 987 1568">In Section 3.1.1.10.3, Domain Revision, changed from:</p> <table border="1" data-bbox="407 1608 1414 1864"> <thead> <tr> <th data-bbox="407 1608 919 1661">DC functional level</th> <th data-bbox="919 1608 1414 1661">Minimum required forest revision</th> </tr> </thead> <tbody> <tr> <td data-bbox="407 1661 919 1713">...</td> <td data-bbox="919 1661 1414 1713">...</td> </tr> <tr> <td data-bbox="407 1713 919 1766">DS_BEHAVIOR_WIN2008</td> <td data-bbox="919 1713 1414 1766">3.8</td> </tr> <tr> <td data-bbox="407 1766 919 1818">DS_BEHAVIOR_WIN2008R2</td> <td data-bbox="919 1766 1414 1818">5.8</td> </tr> <tr> <td data-bbox="407 1818 919 1864">DS_BEHAVIOR_WIN2012</td> <td data-bbox="919 1818 1414 1864">8.8</td> </tr> </tbody> </table>	DC functional level	Minimum required forest revision	DS_BEHAVIOR_WIN2008	2.9	DS_BEHAVIOR_WIN2008R2	5.9	DS_BEHAVIOR_WIN2012	10.9	DS_BEHAVIOR_WIN2012R2	12.10	DC functional level	Minimum required forest revision	DS_BEHAVIOR_WIN2008	2.10	DS_BEHAVIOR_WIN2008R2	5.10	DS_BEHAVIOR_WIN2012	11.10	DS_BEHAVIOR_WIN2012R2	15.10	DC functional level,	Minimum required forest revision	DS_BEHAVIOR_WIN2008,	2.9	DS_BEHAVIOR_WIN2008R2,	5.9	DS_BEHAVIOR_WIN2012,	11.9	DS_BEHAVIOR_WIN2012R2,	15.9	DC functional level	Minimum required forest revision	DS_BEHAVIOR_WIN2008	3.8	DS_BEHAVIOR_WIN2008R2	5.8	DS_BEHAVIOR_WIN2012	8.8
DC functional level	Minimum required forest revision																																												
...	...																																												
DS_BEHAVIOR_WIN2008	2.9																																												
DS_BEHAVIOR_WIN2008R2	5.9																																												
DS_BEHAVIOR_WIN2012	10.9																																												
DS_BEHAVIOR_WIN2012R2	12.10																																												
DC functional level	Minimum required forest revision																																												
...	...																																												
DS_BEHAVIOR_WIN2008	2.10																																												
DS_BEHAVIOR_WIN2008R2	5.10																																												
DS_BEHAVIOR_WIN2012	11.10																																												
DS_BEHAVIOR_WIN2012R2	15.10																																												
DC functional level,	Minimum required forest revision																																												
DS_BEHAVIOR_WIN2008,	2.9																																												
DS_BEHAVIOR_WIN2008R2,	5.9																																												
DS_BEHAVIOR_WIN2012,	11.9																																												
DS_BEHAVIOR_WIN2012R2,	15.9																																												
DC functional level	Minimum required forest revision																																												
...	...																																												
DS_BEHAVIOR_WIN2008	3.8																																												
DS_BEHAVIOR_WIN2008R2	5.8																																												
DS_BEHAVIOR_WIN2012	8.8																																												

Errata Published*	Description																										
	<table border="1" data-bbox="407 275 1414 323"> <tr> <td data-bbox="407 275 922 323">DS_BEHAVIOR_WINTHRESHOLD</td> <td data-bbox="922 275 1414 323">14.9</td> </tr> </table> <p data-bbox="391 401 526 428">Changed to:</p> <table border="1" data-bbox="407 434 1414 737"> <thead> <tr> <th data-bbox="407 434 922 485">DC functional level</th> <th data-bbox="922 434 1414 485">Minimum required forest revision</th> </tr> </thead> <tbody> <tr> <td data-bbox="407 485 922 535">...</td> <td data-bbox="922 485 1414 535">...</td> </tr> <tr> <td data-bbox="407 535 922 585">DS_BEHAVIOR_WIN2008</td> <td data-bbox="922 535 1414 585">3.9</td> </tr> <tr> <td data-bbox="407 585 922 636">DS_BEHAVIOR_WIN2008R2</td> <td data-bbox="922 585 1414 636">5.9</td> </tr> <tr> <td data-bbox="407 636 922 686">DS_BEHAVIOR_WIN2012</td> <td data-bbox="922 636 1414 686">9.9</td> </tr> <tr> <td data-bbox="407 686 922 737">DS_BEHAVIOR_WINTHRESHOLD</td> <td data-bbox="922 686 1414 737">15.9</td> </tr> </tbody> </table> <p data-bbox="391 783 1403 884">Note The preceding table specifies the minimum required domain revisions for the case of a freshly-installed DC. In the case of a DC that has been upgraded from an older version of Windows Server, some of the minimum required domain revisions are different, depending on the DC functional level. These differences are shown in the following table.</p> <table border="1" data-bbox="407 890 1414 1192"> <thead> <tr> <th data-bbox="407 890 922 940">DC functional level</th> <th data-bbox="922 890 1414 940">Minimum required domain revision</th> </tr> </thead> <tbody> <tr> <td data-bbox="407 940 922 991">...</td> <td data-bbox="922 940 1414 991">...</td> </tr> <tr> <td data-bbox="407 991 922 1041">DS_BEHAVIOR_WIN2008</td> <td data-bbox="922 991 1414 1041">3.8</td> </tr> <tr> <td data-bbox="407 1041 922 1092">DS_BEHAVIOR_WIN2008R2</td> <td data-bbox="922 1041 1414 1092">5.8</td> </tr> <tr> <td data-bbox="407 1092 922 1142">DS_BEHAVIOR_WIN2012</td> <td data-bbox="922 1092 1414 1142">9.8</td> </tr> <tr> <td data-bbox="407 1142 922 1192">DS_BEHAVIOR_WIN2012R2</td> <td data-bbox="922 1142 1414 1192">10.8</td> </tr> </tbody> </table>	DS_BEHAVIOR_WINTHRESHOLD	14.9	DC functional level	Minimum required forest revision	DS_BEHAVIOR_WIN2008	3.9	DS_BEHAVIOR_WIN2008R2	5.9	DS_BEHAVIOR_WIN2012	9.9	DS_BEHAVIOR_WINTHRESHOLD	15.9	DC functional level	Minimum required domain revision	DS_BEHAVIOR_WIN2008	3.8	DS_BEHAVIOR_WIN2008R2	5.8	DS_BEHAVIOR_WIN2012	9.8	DS_BEHAVIOR_WIN2012R2	10.8
DS_BEHAVIOR_WINTHRESHOLD	14.9																										
DC functional level	Minimum required forest revision																										
...	...																										
DS_BEHAVIOR_WIN2008	3.9																										
DS_BEHAVIOR_WIN2008R2	5.9																										
DS_BEHAVIOR_WIN2012	9.9																										
DS_BEHAVIOR_WINTHRESHOLD	15.9																										
DC functional level	Minimum required domain revision																										
...	...																										
DS_BEHAVIOR_WIN2008	3.8																										
DS_BEHAVIOR_WIN2008R2	5.8																										
DS_BEHAVIOR_WIN2012	9.8																										
DS_BEHAVIOR_WIN2012R2	10.8																										
2016/01/25	<p data-bbox="391 1213 1357 1266">Added two new sections to discuss the mapping between the values in LDAP and the valid values for client/server/service principal names.</p> <p data-bbox="391 1308 980 1335">New Section 3.1.1.13.6, GetUserLogonInfoByAttribute:</p> <pre data-bbox="496 1360 1159 1493"> procedure GetUserLogonInfoByAttribute(SearchKey: unicodestring, Attribute: ATTRTYP, ExpandedSids: ARRAY(SID), MaxValidityTimeHint: LARGE_INTEGER) : NTSTATUS </pre> <p data-bbox="391 1549 1127 1577">SearchKey: The principal whose logon information is to be retrieved.</p> <p data-bbox="391 1583 1073 1610">Attribute: The attribute to use when searching for the principal.</p> <p data-bbox="391 1617 927 1644">ExpandedSids: Returns the set of expanded SIDs.</p> <p data-bbox="391 1650 1403 1703">MaxValidityTimeHint: Returns a future timestamp that specifies when the returned results are no longer considered valid; a value of zero signifies that no hint is being returned.</p> <p data-bbox="391 1709 1344 1761">Return Values: This procedure returns STATUS_SUCCESS ([MS-ERREF] section 2.3.1) to indicate success; otherwise, an NTSTATUS error code.</p> <p data-bbox="391 1768 1377 1820">Note This procedure uses the pseudocode language defined in [MS-DRSR] section 3.4, and other functions defined in [MS-DRSR] section 4.1.4.2.</p> <p data-bbox="391 1827 596 1854">Logical Processing:</p>																										

Errata Published*	Description
	<pre> Status: NTSTATUS; Names: set of DSName /* Look for user account */ Names := LookupAttr(0, Attribute, SearchKey) if Names == null return STATUS_NO_SUCH_USER endif /* Ensure uniqueness */ if number(Names) != 1 return STATUS_NO_SUCH_USER endif Status = GetUserLogonInfo(Names[0], ExpandedSids, MaxValidityTimeHint); return Status; </pre> <p>New Section 3.1.1.13.7, GetUserLogonInfoByUPNOrAccountName:</p> <pre> procedure GetUserLogonInfoByUPNOrAccountName(UPNOrName: unicodestring, ExpandedSids: ARRAY(SID), MaxValidityTimeHint: LARGE_INTEGER) : NTSTATUS </pre> <p>UPNOrName: The principal whose logon information is to be retrieved. ExpandedSids: Returns the set of expanded SIDs. MaxValidityTimeHint: Returns a future timestamp that specifies when the returned results are no longer considered valid; a value of zero signifies that no hint is being returned. Return Values: This procedure returns STATUS_SUCCESS ([MS-ERREF] section 2.3.1) to indicate success; otherwise, an NTSTATUS error code. Note This procedure uses functions defined in [MS-DRSR] section 4.1.4.2. Logical Processing:</p> <pre> Status: NTSTATUS; UserName: unicodestring /* Search on the userPrincipalName attribute first */ Status := GetUserLogonInfoByAttribute(UPNOrName, userPrincipalName, ExpandedSids, MaxValidityTimeHint); if Status == STATUS_SUCCESS return Status; endif /* Search on the sAMAccountName attribute next */ Status := GetUserLogonInfoByAttribute(UPNOrName, sAMAccountName, ExpandedSids, MaxValidityTimeHint); if Status == STATUS_SUCCESS </pre>

Errata Published*	Description
	<pre> return Status; endif /* Parse the input for the user name and search on that */ UserName := UserNameFromUPN(UPNOrName); if UserName != null Status := GetUserLogonInfoByAttribute(UserName, sAMAccountName, ExpandedSids, MaxValidityTimeHint); if Status == STATUS_SUCCESS return Status; endif endif return STATUS_NO_SUCH_USER; </pre>
2016/01/25	<p>In Section 3.1.1.3.4.1.6, LDAP_SERVER_GET_STATS_OID, corrected the name of a field.</p> <p>Changed from: If the client does not have the SE_DEBUG_PRIVILEGE, a Windows 2000 DC MUST return the value 0 for the suboperations field of this structure.</p> <p>Changed to: If the client does not have the SE_DEBUG_PRIVILEGE, a Windows 2000 DC MUST return the value 0 for the searchSubOperations field of this structure.</p>
2016/01/11	<p>In Section 6.1.1.2.2.1, Subnet Object, added that the subnet name for an IPv6 subnet must be in compact format so that no two strings can refer to the same subnet and clarified that 'leading zeroes' refers to the additional zeroes used to fill out the field and that subnet strings are case-insensitive.</p> <p>Changed from:</p> <ol style="list-style-type: none"> 1. There is only one occurrence of the character "/" in s. Let i be the index of the character "/" in s. 2. The substring s[0, i-1] does not have any leading zeros and is either a valid IPv4 address in dotted decimal notation (as specified in [RFC1166]) or a valid IPv6 address in colon-hexadecimal form or compressed form (as specified in [RFC4291]). Let b be the binary representation of the address in little-endian format. 3. <p>Changed to:</p> <ol style="list-style-type: none"> 1. There is only one occurrence of the character "/" in s. Let i be the index of the character "/" in s. 2. The substring s[0, i-1] is either a valid IPv4 address in dotted decimal notation (as specified in [RFC1166]) or a valid IPv6 address in colon-hexadecimal form or compressed form (as specified in [RFC4291]), and must meet the following constraints: <ul style="list-style-type: none"> ▪ IPv4 addresses must not have any leading zeros in any individual component of the address. ▪ IPv6 addresses must be in canonical text representation format (as specified in [RFC5952] section 4), except that the addresses are treated as case insensitive. <p>Examples:</p>

Errata Published*	Description
	<p>Valid IPv4 subnet names:</p> <ul style="list-style-type: none"> ▪ 10.2.1.0/24 ▪ 10.20.1.0/24 <p>Invalid IPv4 subnet names:</p> <ul style="list-style-type: none"> ▪ 10.02.0.0/16 <p>Valid IPv6 subnet names:</p> <ul style="list-style-type: none"> ▪ A:A:A:A::/64 ▪ a:b::c:d:0:0/64 ▪ 0:0:e0::/48 ▪ A:b:C::/128 ▪ A:B::F:0/128 ▪ 12AB:0:0:CD30::/60 ▪ A:a:e:b:0:d:e:f/128 <p>Invalid IPv6 subnet names:</p> <ul style="list-style-type: none"> ▪ A:B:0C:D::/64 ▪ A:B:0:0:0:0:E:F/128 ▪ 12AB::CD30:0:0:0:0/60 ▪ 12AB:0:0:CD30::F:0/60 ▪ A:a:e:b::d:e:f/128 <p>Let b be the binary representation of the address in little-endian format. ... 3. ...</p>

*Date format: YYYY/MM/DD