**[MS-METAWEB]:**

**MetaWeblog Extensions Protocol**

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**Revision Summary**

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| 12/12/2008 | 1.01 | Editorial | Revised and edited the technical content |
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# Introduction

The MetaWeblog Extensions Protocol is a set of extensions to the MetaWeblog API to enable more secure authentication mechanisms.

Sections 1.5, 1.8, 1.9, 2, and 3 of this specification are normative. All other sections and examples in this specification are informative.

## Glossary

This document uses the following terms:

**blog**: A website that contains a series of posts about a subject and is arranged in reverse chronological order. Also referred to as web log.

**category**: A custom string that is used to group one or more documents.

**Hypertext Transfer Protocol (HTTP)**: An application-level protocol for distributed, collaborative, hypermedia information systems (text, graphic images, sound, video, and other multimedia files) on the World Wide Web.

**NT LAN Manager (NTLM) Authentication Protocol**: A protocol using a challenge-response mechanism for authentication in which clients are able to verify their identities without sending a password to the server. It consists of three messages, commonly referred to as Type 1 (negotiation), Type 2 (challenge) and Type 3 (authentication).

**server**: A computer on which the remote procedure call (RPC) server is executing.

**Unicode**: A character encoding standard developed by the Unicode Consortium that represents almost all of the written languages of the world. The [**Unicode**](#gt_c305d0ab-8b94-461a-bd76-13b40cb8c4d8) standard [[UNICODE5.0.0/2007]](https://go.microsoft.com/fwlink/?LinkId=154659) provides three forms (UTF-8, UTF-16, and UTF-32) and seven schemes (UTF-8, UTF-16, UTF-16 BE, UTF-16 LE, UTF-32, UTF-32 LE, and UTF-32 BE).

**XML**: The Extensible Markup Language, as described in [[XML1.0]](https://go.microsoft.com/fwlink/?LinkId=90599).

**MAY, SHOULD, MUST, SHOULD NOT, MUST NOT:** These terms (in all caps) are used as defined in [[RFC2119]](https://go.microsoft.com/fwlink/?LinkId=90317). All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

## References

Links to a document in the Microsoft Open Specifications library point to the correct section in the most recently published version of the referenced document. However, because individual documents in the library are not updated at the same time, the section numbers in the documents may not match. You can confirm the correct section numbering by checking the [Errata](https://go.microsoft.com/fwlink/?linkid=850906).

### Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact dochelp@microsoft.com. We will assist you in finding the relevant information.

[Blogger API] Williams, E., "Blogger API", August 2001, [http://www.blogger.com/developers/api/1\_docs/](https://go.microsoft.com/fwlink/?LinkId=113932)

[MS-NTHT] Microsoft Corporation, "[NTLM Over HTTP Protocol](%5BMS-NTHT%5D.pdf#Section_f09cf6e1529e403ba8a57368ee096a6a)".

[RFC-MWA] Winer, D., "RFC: MetaWeblog API", March 2002, [http://www.xmlrpc.com/metaWeblogApi](https://go.microsoft.com/fwlink/?LinkId=114088)

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, [http://www.rfc-editor.org/rfc/rfc2119.txt](https://go.microsoft.com/fwlink/?LinkId=90317)

[RFC2616] Fielding, R., Gettys, J., Mogul, J., et al., "Hypertext Transfer Protocol -- HTTP/1.1", RFC 2616, June 1999, [http://www.rfc-editor.org/rfc/rfc2616.txt](https://go.microsoft.com/fwlink/?LinkId=90372)

[XML-RPC] Winer, D., "XML-RPC Specification", June 1999, [http://www.xmlrpc.com/spec](https://go.microsoft.com/fwlink/?LinkId=113987)

### Informative References

[MS-NLMP] Microsoft Corporation, "[NT LAN Manager (NTLM) Authentication Protocol](%5BMS-NLMP%5D.pdf#Section_b38c36ed28044868a9ff8dd3182128e4)".

[RFC2617] Franks, J., Hallam-Baker, P., Hostetler, J., et al., "HTTP Authentication: Basic and Digest Access Authentication", RFC 2617, June 1999, [http://www.rfc-editor.org/rfc/rfc2617.txt](https://go.microsoft.com/fwlink/?LinkId=90373)

## Overview

The RFC: MetaWeblog API, as described in [[RFC-MWA]](https://go.microsoft.com/fwlink/?LinkId=114088), is a protocol that allows client software to get and set the text and attributes of posts on a [**blog**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c). The RFC: MetaWeblog API uses the [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85)-RPC communication protocol, as described in [[XML-RPC]](https://go.microsoft.com/fwlink/?LinkId=113987), for communication between client applications and a blog [**server**](#gt_434b0234-e970-4e8c-bdfa-e16a30d96703). The client sends XML-RPC method call requests to the server, and the server returns a response to the client. The server never initiates any communication with the client.

This protocol extends the RFC: MetaWeblog API to enable the client sending empty usernames and passwords in MetaWeblog API methods, and the server authenticating blog users with other mechanisms in the underlying transport. A typical scenario is that a blog (1) user wants to add a new post to a blog, and the client software sends a method request with empty username and password parameters.

## Relationship to Other Protocols

This protocol is a set of extensions to the RFC: MetaWeblog API that enables the [**server**](#gt_434b0234-e970-4e8c-bdfa-e16a30d96703) to use other authentication methods. The RFC: MetaWeblog API is an extension of the Blogger API, as described in [[Blogger API]](https://go.microsoft.com/fwlink/?LinkId=113932). Therefore, many [**blog**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c) tools and editors that support the RFC: MetaWeblog API also support the Blogger API.

## Prerequisites/Preconditions

It is assumed that a MetaWeblog client has obtained the name of a [**server**](#gt_434b0234-e970-4e8c-bdfa-e16a30d96703) that supports the RFC: MetaWeblog API before this protocol is invoked.

The protocol server endpoint is formed by appending "\_layouts/metaweblog.aspx" to the URL of the [**blog**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c) site; for example, http://www.example.com/\_layouts/metaweblog.aspx.

## Applicability Statement

The RFC: MetaWeblog API is applicable wherever there is a need to get and set the text and attributes of posts on a [**blog**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c). This protocol extension is applicable when a client using the RFC: MetaWeblog API does not send the user's name and password directly in the messages, but rather uses the authentication performed by an underlying transport.

## Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

* **Supported Transports:** This protocol can only be implemented using [**Hypertext Transfer Protocol (HTTP)**](#gt_d72f1494-4917-4e9e-a9fd-b8f1b2758dcd), as described in section [2.1](#Section_9093873035ac4959975853909ae35061).

**Security and Authentication Methods:** The MetaWeblog API methods each contain a *username* and a *password* parameter for user authentication purposes. Some MetaWeblog servers also support alternate authentication methods such as [**NT LAN Manager (NTLM) Authentication Protocol**](#gt_fff710f9-e3d1-4991-99a2-009768d57585), as described in [[MS-NLMP]](%5BMS-NLMP%5D.pdf#Section_b38c36ed28044868a9ff8dd3182128e4), and HTTP authentication, as described in [[RFC2617]](https://go.microsoft.com/fwlink/?LinkId=90373).

## Vendor-Extensible Fields

None.

## Standards Assignments

None.

# Messages

## Transport

A MetaWeblog message is an [**HTTP**](#gt_d72f1494-4917-4e9e-a9fd-b8f1b2758dcd) version 1.1 POST request, as specified in [[RFC2616]](https://go.microsoft.com/fwlink/?LinkId=90372). The body of the request is in [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85). A procedure executes on the [**server**](#gt_434b0234-e970-4e8c-bdfa-e16a30d96703), and the response that is returned is formatted in XML.

## Message Syntax

The format of the [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85) body for an XML-RPC request and response is specified in [[XML-RPC]](https://go.microsoft.com/fwlink/?LinkId=113987). The body of the request and response is in XML using [**Unicode**](#gt_c305d0ab-8b94-461a-bd76-13b40cb8c4d8) string.

The format of the method request and response for each MetaWeblog method is specified in [[RFC-MWA]](https://go.microsoft.com/fwlink/?LinkId=114088).

The Blogger API functions are specified in [[Blogger API]](https://go.microsoft.com/fwlink/?LinkId=113932).

Each method in the MetaWeblog API provides *username* and *password* parameters for authenticating the [**blog**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c) user with the [**server**](#gt_434b0234-e970-4e8c-bdfa-e16a30d96703). If the server is capable of authenticating the user by using the authentication methods described in section [1.7](#Section_5a10b03ed30c4e6abd77ad802132513b), these parameters are not necessary and a client SHOULD[<1>](#Appendix_A_1" \o "Product behavior note 1)[<2>](#Appendix_A_2" \o "Product behavior note 2) pass them as empty elements.

### metaWeblog.newPost Extension

The **metaWeblog.newPost** method posts a new entry to a [**blog**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c). The structure of this method, as specified in [[RFC-MWA]](https://go.microsoft.com/fwlink/?LinkId=114088), is as follows.

1. public string metaWeblog.newPost(string blogid,
2. string username,
3. string password,
4. struct struct,
5. bool publish);

The use of the following parameters differs from that which is specified in [RFC-MWA].

**username:** An [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85)-encoded [**Unicode**](#gt_c305d0ab-8b94-461a-bd76-13b40cb8c4d8) string that contains the login for the blog user, which SHOULD[<3>](#Appendix_A_3" \o "Product behavior note 3) be empty.

**password:** An XML-encoded Unicode string that contains the user's password, which SHOULD[<4>](#Appendix_A_4" \o "Product behavior note 4) be empty.

### metaWeblog.editPost Extension

The **metaWeblog.editPost** method edits an existing entry on a [**blog**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c). The structure of this method, as specified in [[RFC-MWA]](https://go.microsoft.com/fwlink/?LinkId=114088), is as follows.

1. public bool metaWeblog.editPost(string postid,
2. string username,
3. string password,
4. struct struct,
5. bool publish);

The use of the following parameters differs from that which is specified in [RFC-MWA].

**username:** An [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85)-encoded [**Unicode**](#gt_c305d0ab-8b94-461a-bd76-13b40cb8c4d8) string containing the login for the blog user, which SHOULD[<5>](#Appendix_A_5" \o "Product behavior note 5) be empty.

**password:** An XML-encoded Unicode string containing the user's password, which SHOULD[<6>](#Appendix_A_6" \o "Product behavior note 6) be empty.

### metaWeblog.getPost Extension

The **metaWeblog.getPost** method returns a specific entry from a [**blog**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c). The structure of this method, as specified in [[RFC-MWA]](https://go.microsoft.com/fwlink/?LinkId=114088), is as follows.

1. public struct metaWeblog.getPost(string postid,
2. string username,
3. string password);

The use of the following parameters differs from that which is specified in [RFC-MWA].

**username:** An [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85)-encoded [**Unicode**](#gt_c305d0ab-8b94-461a-bd76-13b40cb8c4d8) string containing the login for the blog user, which SHOULD[<7>](#Appendix_A_7" \o "Product behavior note 7) be empty.

**password:** An XML-encoded Unicode string containing the user's password, which SHOULD[<8>](#Appendix_A_8" \o "Product behavior note 8) be empty.

### metaWeblog.newMediaObject Extension

The **metaWeblog.newMediaObject** method uploads a file from a user's computer to the user's [**blog**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c).[<9>](#Appendix_A_9" \o "Product behavior note 9) The structure of this method, as specified in [[RFC-MWA]](https://go.microsoft.com/fwlink/?LinkId=114088), is as follows.

1. public struct metaWeblog.newMediaObject(string blogid,
2. string username,
3. string password,
4. struct struct);

The use of the following parameters differs from that which is specified in [RFC-MWA].

**username:** An [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85)-encoded [**Unicode**](#gt_c305d0ab-8b94-461a-bd76-13b40cb8c4d8) string containing the login for the blog user, which SHOULD[<10>](#Appendix_A_10" \o "Product behavior note 10) be empty.

**password:** An XML-encoded Unicode string containing the user's password, which SHOULD[<11>](#Appendix_A_11" \o "Product behavior note 11) be empty.

### metaWeblog.getCategories Extension

The **metaWeblog.getCategories** method returns the list of [**categories**](#gt_7d6acf13-ba4d-4a0a-930e-3eaee465c7f1) that have been used in the [**blog**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c). The structure of this method, as specified in [[RFC-MWA]](https://go.microsoft.com/fwlink/?LinkId=114088), is as follows.

1. public struct[] metaWeblog.getCategories(string blogid,
2. string username,
3. string password);

The use of the following parameters differs from that which is specified in [RFC-MWA].

**username:** An [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85) encoded [**Unicode**](#gt_c305d0ab-8b94-461a-bd76-13b40cb8c4d8) string containing the login for the blog user, which SHOULD[<12>](#Appendix_A_12" \o "Product behavior note 12) be empty.

**password:** An XML encoded Unicode string containing the user's password, which SHOULD[<13>](#Appendix_A_13" \o "Product behavior note 13) be empty.

### metaWeblog.getRecentPosts Extension

The **metaWeblog.getRecentPosts** method returns the most recent draft and non-draft [**blog**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c) posts in descending order by publish date. The structure of this method, as specified in [[RFC-MWA]](https://go.microsoft.com/fwlink/?LinkId=114088), is as follows.

1. public struct[] metaWeblog.getRecentPosts(string blogid,
2. string username,
3. string password,
4. int numberOfPosts);

The use of the following parameters differs from that which is specified in [RFC-MWA].

**username:** An [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85) encoded [**Unicode**](#gt_c305d0ab-8b94-461a-bd76-13b40cb8c4d8) string containing the login for the blog user, which SHOULD[<14>](#Appendix_A_14" \o "Product behavior note 14) be empty.

**password:** An XML encoded Unicode string containing the user's password, which SHOULD[<15>](#Appendix_A_15" \o "Product behavior note 15) be empty.

### blogger.getUsersBlogs Extension

The **blogger.getUsersBlogs** method returns a list of [**blogs**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c) to which the current authenticated user has posting privileges. The structure of this method, as specified in [[Blogger API]](https://go.microsoft.com/fwlink/?LinkId=113932), is as follows.

1. public struct[] blogger.getUsersBlogs(string appkey,
2. string username,
3. string password);

The use of the following parameters differs from that which is specified in [Blogger API].

**username:** An [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85)-encoded [**Unicode**](#gt_c305d0ab-8b94-461a-bd76-13b40cb8c4d8) string containing the login for the blog user, which SHOULD[<16>](#Appendix_A_16" \o "Product behavior note 16) be empty.

**password:** An XML-encoded Unicode string containing the user's password, which SHOULD[<17>](#Appendix_A_17" \o "Product behavior note 17) be empty.

# Protocol Details

## Common Details

### Abstract Data Model

The abstract data model follows the specifications in [[RFC-MWA]](https://go.microsoft.com/fwlink/?LinkId=114088) and [[XML-RPC]](https://go.microsoft.com/fwlink/?LinkId=113987).

### Timers

None.

### Initialization

None.

### Higher-Layer Triggered Events

None.

### Message Processing Events and Sequencing Rules

When the [**server**](#gt_434b0234-e970-4e8c-bdfa-e16a30d96703) receives a protocol message containing an empty *username* or an empty *password*, the server MUST ensure that authentication has been established through some other mechanism compatible with the [**HTTP**](#gt_d72f1494-4917-4e9e-a9fd-b8f1b2758dcd) transport, as specified in [[RFC2616]](https://go.microsoft.com/fwlink/?LinkId=90372), before performing the requested action.[<18>](#Appendix_A_18" \o "Product behavior note 18)

If the authentication through other mechanism fails to authenticate a [**blog**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c) user to the MetaWeblog service, an error MUST be returned as an [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85)-RPC <methodResponse> with a <fault> item, as specified in [[XML-RPC]](https://go.microsoft.com/fwlink/?LinkId=113987). If the authentication through another mechanism succeeds in authenticating the blog user, the server MUST perform the requested action and return a response, as specified in [[RFC-MWA]](https://go.microsoft.com/fwlink/?LinkId=114088).

### Timer Events

None.

### Other Local Events

None.

# Protocol Examples

## Client Messages

Each method, as described in [[RFC-MWA]](https://go.microsoft.com/fwlink/?LinkId=114088), follows a similar request and response pattern. The following example demonstrates a request with empty *username* and *password* parameters.

### metaWeblog.newPost

When a [**blog**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c) user adds a new post to a blog, the client software will send a **metaWeblog.newPost** request, as described in [[XML-RPC]](https://go.microsoft.com/fwlink/?LinkId=113987), with a body formatted as [**XML**](#gt_982b7f8e-d516-4fd5-8d5e-1a836081ed85) as follows.

1. <?xml version="1.0" encoding="UTF-8"?>
2. <methodCall>
3. <methodName>metaWeblog.newPost</methodName>
4. <params>
5. <param>
6. <value>
7. <string>MyBlog</string>
8. </value>
9. </param>
10. <param>
11. <value>
12. <string></string>
13. </value>
14. </param>
15. <param>
16. <value>
17. <string></string>
18. </value>
19. </param>
20. <param>
21. <value>
22. <struct>
23. <member>
24. <name>title</name>
25. <value>
26. <string>My Title</string>
27. </value>
28. </member>
29. <member>
30. <name>description</name>
31. <value>
32. <string>My description</string>
33. </value>
34. </member>
35. <member>
36. <name>categories</name>
37. <value>
38. <array>
39. <data>
40. <value>
41. <string>My Category</string>
42. </value>
43. </data>
44. </array>
45. </value>
46. </member>
47. </struct>
48. </value>
49. </param>
50. <param>
51. <value>
52. <boolean>1</boolean>
53. </value>
54. </param>
55. </params>
56. </methodCall>

The [**server**](#gt_434b0234-e970-4e8c-bdfa-e16a30d96703) processes the **metaWeblog.newPost** method request and returns a response, as described in [XML-RPC], with a body formatted as XML as follows.

1. <?xml version="1.0" encoding="UTF-8"?>
2. <methodResponse>
3. <params>
4. <param>
5. <value>1829</value>
6. </param>
7. </params>
8. </methodResponse>

# Security

## Security Considerations for Implementers

The protocol described in [[RFC-MWA]](https://go.microsoft.com/fwlink/?LinkId=114088) uses [**HTTP**](#gt_d72f1494-4917-4e9e-a9fd-b8f1b2758dcd) version 1.1 as its transport mechanism. The security considerations for HTTP 1.1 are described in [[RFC2616]](https://go.microsoft.com/fwlink/?LinkId=90372), section 15.

The protocols described in [[Blogger API]](https://go.microsoft.com/fwlink/?LinkId=113932) and [RFC-MWA] use clear-text *username* and *password* parameters for authentication. This makes the protocol vulnerable to replay attacks, and permits the recovery of the user's password via the recording of client and [**server**](#gt_434b0234-e970-4e8c-bdfa-e16a30d96703) protocol exchanges.

The vulnerabilities of the RFC: MetaWeblog API can be mitigated by relying on authentication methods in the underlying transport such as the NTLM Over HTTP protocol, as described in [[MS-NTHT]](%5BMS-NTHT%5D.pdf%22%20%5Cl%20%22Section_f09cf6e1529e403ba8a57368ee096a6a) or in [[RFC2617]](https://go.microsoft.com/fwlink/?LinkId=90373), and by sending empty *username* and *password* parameters in the message, as described in [RFC-MWA].

## Index of Security Parameters

None.

# Appendix A: XML-RPC Schema

For ease of implementation the following XML-RPC Schema is provided.

1. <?xml version="1.0"?>
2. <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema">
3. <xsd:element name="methodCall">
4. <xsd:complexType>
5. <xsd:all>
6. <xsd:element name="methodName">
7. <xsd:simpleType>
8. <xsd:restriction base="ASCIIString">
9. <xsd:pattern value="([A-Za-z0-9]|/|\.|:|\_)\*" />
10. </xsd:restriction>
11. </xsd:simpleType>
12. </xsd:element>
13. <xsd:element name="params" minOccurs="0" maxOccurs="1">
14. <xsd:complexType>
15. <xsd:sequence>
16. <xsd:element name="param" type="ParamType"
17. minOccurs="0" maxOccurs="unbounded" />
18. </xsd:sequence>
19. </xsd:complexType>
20. </xsd:element>
21. </xsd:all>
22. </xsd:complexType>
23. </xsd:element>
24. <xsd:element name="methodResponse">
25. <xsd:complexType>
26. <xsd:choice>
27. <xsd:element name="params">
28. <xsd:complexType>
29. <xsd:sequence>
30. <xsd:element name="param" type="ParamType" />
31. </xsd:sequence>
32. </xsd:complexType>
33. </xsd:element>
34. <xsd:element name="fault">
35. <xsd:complexType>
36. <xsd:sequence>
37. <xsd:element name="value">
38. <xsd:complexType>
39. <xsd:sequence>
40. <xsd:element name="struct">
41. <xsd:complexType>
42. <xsd:sequence>
43. <xsd:element name="member"
44. type="MemberType" />
45. <xsd:element name="member"
46. type="MemberType" />
47. </xsd:sequence>
48. </xsd:complexType>
49. </xsd:element>
50. </xsd:sequence>
51. </xsd:complexType>
52. </xsd:element>
53. </xsd:sequence>
54. </xsd:complexType>
55. </xsd:element>
56. </xsd:choice>
57. </xsd:complexType>
58. </xsd:element>
59. <xsd:complexType name="ParamType">
60. <xsd:sequence>
61. <xsd:element name="value" type="ValueType" />
62. </xsd:sequence>
63. </xsd:complexType>
64. <xsd:complexType name="ValueType" mixed="true">
65. <xsd:choice>
66. <xsd:element name="i4" type="xsd:int" />
67. <xsd:element name="int" type="xsd:int" />
68. <xsd:element name="string" type="ASCIIString" />
69. <xsd:element name="double" type="xsd:decimal" />
70. <xsd:element name="Base64" type="xsd:base64Binary" />
71. <xsd:element name="boolean" type="NumericBoolean" />
72. <xsd:element name="dateTime.iso8601" type="xsd:dateTime" />
73. <xsd:element name="array" type="ArrayType" />
74. <xsd:element name="struct" type="StructType" />
75. </xsd:choice>
76. </xsd:complexType>
77. <xsd:complexType name="StructType">
78. <xsd:sequence>
79. <xsd:element name="member" type="MemberType"
80. maxOccurs="unbounded" />
81. </xsd:sequence>
82. </xsd:complexType>
83. <xsd:complexType name="MemberType">
84. <xsd:sequence>
85. <xsd:element name="name" type="xsd:string" />
86. <xsd:element name="value" type="ValueType" />
87. </xsd:sequence>
88. </xsd:complexType>
89. <xsd:complexType name="ArrayType">
90. <xsd:sequence>
91. <xsd:element name="data">
92. <xsd:complexType>
93. <xsd:sequence>
94. <xsd:element name="value" type="ValueType"
95. minOccurs="0" maxOccurs="unbounded" />
96. </xsd:sequence>
97. </xsd:complexType>
98. </xsd:element>
99. </xsd:sequence>
100. </xsd:complexType>
101. <xsd:simpleType name="ASCIIString">
102. <xsd:restriction base="xsd:string">
103. <xsd:pattern value="([ -~]|\n|\r|\t)\*" />
104. </xsd:restriction>
105. </xsd:simpleType>
106. <xsd:simpleType name="NumericBoolean">
107. <xsd:restriction base="xsd:boolean">
108. <xsd:pattern value="0|1" />
109. </xsd:restriction>
110. </xsd:simpleType>
111. </xsd:schema>

# Appendix B: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include updates to those products.

* The 2007 Microsoft Office system
* Microsoft Office 2010 suites
* Microsoft Office 2013
* Microsoft Office SharePoint Server 2007
* Microsoft SharePoint Server 2010
* Windows SharePoint Services 3.0
* Microsoft SharePoint Foundation 2010
* Microsoft SharePoint Foundation 2013
* Microsoft Office 2016
* Microsoft SharePoint Server 2016
* Microsoft Office 2019
* Microsoft SharePoint Server 2019
* Microsoft Office 2021
* Microsoft SharePoint Server Subscription Edition Preview

Exceptions, if any, are noted in this section. If an update version, service pack or Knowledge Base (KB) number appears with a product name, the behavior changed in that update. The new behavior also applies to subsequent updates unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification that is prescribed using the terms "SHOULD" or "SHOULD NOT" implies product behavior in accordance with the SHOULD or SHOULD NOT prescription. Unless otherwise specified, the term "MAY" implies that the product does not follow the prescription.

[<1> Section 2.2](#Appendix_A_Target_1): Microsoft Office Word 2007 sends an empty *password* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a non-empty password, but by default it will send a failure response if the client sends a non-empty password.

[<2> Section 2.2](#Appendix_A_Target_2): Office Word 2007 sends an empty *username* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a nonempty *username*, but by default it will send a failure response if the client sends a nonempty *username*.

[<3> Section 2.2.1](#Appendix_A_Target_3): Office Word 2007 sends an empty *username* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a nonempty *username*, but by default it will send a failure response if the client sends a nonempty *username*.

[<4> Section 2.2.1](#Appendix_A_Target_4): Office Word 2007 sends an empty *password* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a non-empty password, but by default it will send a failure response if the client sends a non-empty password.

[<5> Section 2.2.2](#Appendix_A_Target_5): Office Word 2007 sends an empty *username* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a nonempty *username*, but by default it will send a failure response if the client sends a nonempty *username*.

[<6> Section 2.2.2](#Appendix_A_Target_6): Office Word 2007 sends an empty *password* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a non-empty password, but by default it will send a failure response if the client sends a non-empty password.

[<7> Section 2.2.3](#Appendix_A_Target_7): Office Word 2007 sends an empty *username* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a nonempty *username*, but by default it will send a failure response if the client sends a nonempty *username*.

[<8> Section 2.2.3](#Appendix_A_Target_8): Office Word 2007 sends an empty *password* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a non-empty password, but by default it will send a failure response if the client sends a non-empty password.

[<9> Section 2.2.4](#Appendix_A_Target_9): The metaWeblog.newMediaObject method is not supported on Office server and [**server**](#gt_434b0234-e970-4e8c-bdfa-e16a30d96703) will send a failure response if client calls this method.

[<10> Section 2.2.4](#Appendix_A_Target_10): Office Word 2007 sends an empty *username* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a nonempty *username*, but by default it will send a failure response if the client sends a nonempty *username*.

[<11> Section 2.2.4](#Appendix_A_Target_11): Office Word 2007 sends an empty *password* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a non-empty password, but by default it will send a failure response if the client sends a non-empty password.

[<12> Section 2.2.5](#Appendix_A_Target_12): Office Word 2007 sends an empty *username* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a nonempty *username*, but by default it will send a failure response if the client sends a nonempty *username*.

[<13> Section 2.2.5](#Appendix_A_Target_13): Office Word 2007 sends an empty *password* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a non-empty password, but by default it will send a failure response if the client sends a non-empty password.

[<14> Section 2.2.6](#Appendix_A_Target_14): Office Word 2007 sends an empty *username* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a nonempty *username*, but by default it will send a failure response if the client sends a nonempty *username*.

[<15> Section 2.2.6](#Appendix_A_Target_15): Office Word 2007 sends an empty *password* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a non-empty password, but by default it will send a failure response if the client sends a non-empty password.

[<16> Section 2.2.7](#Appendix_A_Target_16): Office Word 2007 sends an empty *username* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a nonempty *username*, but by default it will send a failure response if the client sends a nonempty *username*.

[<17> Section 2.2.7](#Appendix_A_Target_17): Office Word 2007 sends an empty *password* parameter when communicating with Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010. Office SharePoint Server 2007, SharePoint Server 2010, Windows SharePoint Services 3.0, SharePoint Foundation 2010 can be configured to allow a non-empty password, but by default it will send a failure response if the client sends a non-empty password.

[<18> Section 3.1.5](#Appendix_A_Target_18): Office SharePoint Server 2007 authenticates [**blog**](#gt_65be4132-bf56-4f55-89a3-0c3521b20d8c) users using [[MS-NTHT]](%5BMS-NTHT%5D.pdf#Section_f09cf6e1529e403ba8a57368ee096a6a).

# Change Tracking

This section identifies changes that were made to this document since the last release. Changes are classified as Major, Minor, or None.

The revision class **Major** means that the technical content in the document was significantly revised. Major changes affect protocol interoperability or implementation. Examples of major changes are:

* A document revision that incorporates changes to interoperability requirements.
* A document revision that captures changes to protocol functionality.

The revision class **Minor** means that the meaning of the technical content was clarified. Minor changes do not affect protocol interoperability or implementation. Examples of minor changes are updates to clarify ambiguity at the sentence, paragraph, or table level.

The revision class **None** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the relevant technical content is identical to the last released version.

The changes made to this document are listed in the following table. For more information, please contact dochelp@microsoft.com.

| Section | Description | Revision class |
| --- | --- | --- |
| [7](#Section_d14271b39a9244f8a8ce156abe32a3c9) Appendix B: Product Behavior | Updated list of supported products. | major |
| 7 Appendix B: Product Behavior | Updated list of supported products. | Major |
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