[MS-OXPFOAB]:

Offline Address Book (OAB) Public Folder Retrieval Protocol

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Revision Summary

Date	Revision History	Revision Class	Comments
4/4/2008	0.1	New	Initial Availability.
4/25/2008	0.2	Minor	Revised and updated property names and other technical content.
6/27/2008	1.0	Major	Initial Release.
8/6/2008	1.01	Minor	Updated references to reflect date of initial release.
9/3/2008	1.02	Minor	Revised and edited technical content.
12/3/2008	1.03	Minor	Minor editorial fixes.
3/4/2009	1.04	Minor	Revised and edited technical content.
4/10/2009	2.0	Major	Updated applicable product releases.
7/15/2009	3.0	Major	Revised and edited for technical content.
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Table of Contents

1 Introduction

The Offline Address Book (OAB) Public Folder Retrieval Protocol provides a mechanism for delivering an **offline address book (OAB)** from a server to a client. An OAB uses the format and schema structure that is described in [MS-OXOAB].

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.

1.1 Glossary

This document uses the following terms:

address book: A collection of **Address Book objects**, each of which are contained in any number of **address lists**.

Address Book object: An entity in an **address book** that contains a set of attributes, each attribute with a set of associated values.

address list: A collection of distinct **Address Book objects**.

Augmented Backus-Naur Form (ABNF): A modified version of Backus-Naur Form (BNF), commonly used by Internet specifications. ABNF notation balances compactness and simplicity with reasonable representational power. ABNF differs from standard BNF in its definitions and uses of naming rules, repetition, alternatives, order-independence, and value ranges. For more information, see [RFC5234].

code page: An ordered set of characters of a specific script in which a numerical index (code-point value) is associated with each character. Code pages are a means of providing support for character sets and keyboard layouts used in different countries. Devices such as the display and keyboard can be configured to use a specific code page and to switch from one code page (such as the United States) to another (such as Portugal) at the user's request.

display template: A template that describes how to display or allow a user to modify information about an **Address Book object**.

entry ID: See EntryID.

local site: A directory services unit that defines the physical structure or topology of a local network.

message store: A unit of containment for a single hierarchy of Folder objects, such as a mailbox or public folders.

OAL data sequence number: An integer that is associated with **offline address list (OAL)** data that represents the generation number of this data. The value of the initial sequence number is "1". Each subsequent data generation process that produces a data set that is not identical to the previous data set is incremented by one.

offline address book (OAB): A collection of **address lists** that are stored in a format that a client can save and use locally.

offline address book (OAB) data file: A file that contains **offline address book (OAB)** version 4–specific data, as described in [MS-OXOAB].

offline address list (OAL): A portion of data that is in an **offline address book (OAB)** and is related to a single **address list**.

public folder: A Folder object that is stored in a location that is publicly available.

remote operation (ROP): An operation that is invoked against a server. Each ROP represents an action, such as delete, send, or query. A ROP is contained in a ROP buffer for transmission over the wire.

root folder: The folder at the top of a hierarchy of folders in a list.

SHA-1 hash: A hashing algorithm as specified in [FIPS180-2] that was developed by the National Institute of Standards and Technology (NIST) and the National Security Agency (NSA).

Web Distribution Point (WDP): A location on a server where **offline address book (OAB)** files are published for web distribution. A client can discover the URI of a WDP by using the Autodiscover Publishing and Lookup Protocol, as described in [MS-OXDSCLI].

MAY, SHOULD, MUST, SHOULD NOT, MUST NOT: These terms (in all caps) are used as defined in [RFC2119]. All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

1.2 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.

1.2.1 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.

[MS-LCID] Microsoft Corporation, "Windows Language Code Identifier (LCID) Reference".

[MS-OXCFOLD] Microsoft Corporation, "Folder Object Protocol".

[MS-OXCMSG] Microsoft Corporation, "Message and Attachment Object Protocol".

[MS-OXCROPS] Microsoft Corporation, "Remote Operations (ROP) List and Encoding Protocol".

[MS-OXCRPC] Microsoft Corporation, "Wire Format Protocol".

[MS-OXCSTOR] Microsoft Corporation, "Store Object Protocol".

[MS-OXCTABL] Microsoft Corporation, "Table Object Protocol".

[MS-OXDISCO] Microsoft Corporation, "Autodiscover HTTP Service Protocol".

[MS-OXOABKT] Microsoft Corporation, "Address Book User Interface Templates Protocol".

[MS-OXOAB] Microsoft Corporation, "Offline Address Book (OAB) File Format and Schema".

[MS-OXPROPS] Microsoft Corporation, "Exchange Server Protocols Master Property List".

[MS-OXWOAB] Microsoft Corporation, "Offline Address Book (OAB) Retrieval File Format".

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, https://www.rfc-editor.org/rfc/rfc2119.html

[RFC5234] Crocker, D., Ed., and Overell, P., "Augmented BNF for Syntax Specifications: ABNF", STD 68, RFC 5234, January 2008, http://www.rfc-editor.org/rfc/rfc5234.txt

1.2.2 Informative References

[MS-OXPROTO] Microsoft Corporation, "Exchange Server Protocols System Overview".

1.3 Overview

A collaboration server can represent properties of known **Address Book objects** and make them available in an **address book** to its clients. When the client cannot reach the server because it is offline or due to high network costs to access the server, the client might keep a local copy of an **offline address book (OAB)**. The Offline Address Book (OAB) Public Folder Retrieval Protocol enables OAB data to be located in and obtained from a shared location so that it can be retrieved by clients.

Clients can also obtain OAB version 4 files by using the Offline Address Book (OAB) Web Retrieval Protocol [MS-OXWOAB]. Note that the **OAL data sequence number** [MS-OXWOAB] is also used in **public folder** distribution, and any client use of that number applies to the public folder–distributed OAB as well.

1.4 Relationship to Other Protocols

This protocol extends the Message and Attachment Object Protocol, as described in [MS-OXCMSG].

Clients use this protocol to retrieve and consume **OAB data files** that have the Offline Address Book (OAB) Format and Schema structure, as described in [MS-OXOAB].

Clients that use this protocol rely on the Store Object Protocol, as described in [MS-OXCSTOR], to obtain the ID of the **OAB** data folder of the **local site**. The ID is retrieved from the server when it logs on to the **public folder** by using **RopLogon** property ([MS-OXCROPS] section 2.2.3.1).

For conceptual background information and overviews of the relationships and interactions between this and other protocols, see [MS-OXPROTO].

1.5 Prerequisites/Preconditions

This protocol assumes that the server is configured to support **public folders**.

1.6 Applicability Statement

Clients use this protocol for **OAB** files. Clients that do not support the Offline Address Book (OAB) Retrieval File Format, as described in [MS-OXWOAB], or clients that connect to servers that do not support the OAB Retrieval File Format, will use this protocol to retrieve OAB data.

1.7 Versioning and Capability Negotiation

None.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2   Messages

2.1   Transport

This protocol uses the Message and Attachment Object Protocol, as specified in [MS-OXCMSG], as its transport mechanism.

2.2   Message Syntax

2.2.1   OAB Messages

OAB data is stored as a set of properties and attachments on a message in the **public folders message store**.<1> The message is referred to as the full OAB message or differential OAB message. The location of this message is specified in section 3. Unless otherwise specified, the OAB messages adhere to the format specified in [MS-OXCMSG].

There are two types of OAB messages — full messages and differential messages — with some additional differences related to the version of the OAB. Full messages contain all of the information that is needed to create a current OAB. Differential messages contain enough information to update a previous OAB to a more current OAB. The following properties are common to all OAB messages that use public folder retrieval.

- **PidTagOfflineAddressBookName**, as specified in [MS-OXOAB] section 2.12.3.

- **PidTagOfflineAddressBookSequence**, as specified in [MS-OXOAB] section 2.12.4.

- **PidTagOfflineAddressBookContainerGuid**, as specified in [MS-OXOAB] section 2.12.1.

- **PidTagOfflineAddressBookDistinguishedName**, as specified in [MS-OXOAB] section 2.12.2.

- **PidTagSortLocaleId**, as specified in section 2.2.1.1.

- **PidTagMessageCodepage**, as specified in section 2.2.1.2

- **PidTagParentEntryId**, as specified in section 2.2.1.4.

- **PidTagEntryId**, as specified in section 2.2.1.5.

2.2.1.1   PidTagSortLocaleId

The value of this property is the locale identifier, as described in [MS-LCID], that is used in combination with the **PidTagMessageCodepage** property to sort RDN2_REC and ANR_REC in OAB version 2 files. For details, see [MS-OXPROPS] section 2.1021 and [MS-OXOAB].

2.2.1.2   PidTagMessageCodepage

The value of this property is the **code page** that is used to encode the strings in the message properties in OAB version 2 files. Note that strings in OAB version 4 files are stored in UTF-8 format. For details, see [MS-OXCMSG] section 2.2.1.4 and [MS-OXPROPS] section 2.788.

2.2.1.3   PidTagMessageSize

This property contains the size of the message on the server. For details about this property, see [MS-OXCMSG] section 2.2.1.7 and [MS-OXPROPS] section 2.796.

2.2.1.4 PidTagParentEntryId

This property contains the **entry ID** for a folder that contains the **offline address book (OAB) public folder** message. For details, see [MS-OXPROPS] section 2.858.<2>

2.2.1.5 PidTagEntryId

This property contains the **entry ID** for the **OAB public folder** message. For details, see [MS-OXPROPS] section 2.683.<3>

2.2.2   Full OAB Messages

2.2.2.1 Properties and Attachments

2.2.2.1.1 PidTagOfflineAddressBookMessageClass

This property is set to 1 for all full **OAB** messages. For details, see [MS-OXPROPS] section 2.817.

2.2.2.1.2 Full OAB Message Attachments – Version 2 and Version 3a

Multiple compressed files are attached to the OAB version 2 and OAB version 3a full **OAB** by using the Offline Address Book (OAB) Format and Schema, as specified in [MS-OXOAB]. These are the Browse file, RDN Index file, ANR Index file, Details file, and one or more **display template** files.

OAB version 2 and OAB version 3a attachments have their own properties and are described in the following subsections.

2.2.2.1.2.1   PidTagAttachFilename

This property is set to the values that correspond to each of the files listed in the following table. For details about this property, see [MS-OXPROPS] section 2.593.

OAB file	PidTagAttachFilename value MUST start with	PidTagAttachFilename value SHOULD be
Browse	b	browse2.oab
RDN Index	r	rndex2.oab
ANR Index	a	anrdex.oab
Details	d	details2.oab
Template	l	*
Template	m	*

The following **Augmented Backus-Naur Form (ABNF)**, as specified in [RFC5234], defines the constraints of the **display template** file name.

```
TmpltFilename = ("lng" LocaleIdentifier ".oab") / ("mac" LocaleIdentifier ".oab")
LocaleIdentifier = (%x31-39 / ALPHA) *HEXDIG;for example, 409 and cc08 but not 0409
```

"LocaleIdentifier" is a value from [MS-LCID] but can also have the value 8411 to indicate the special Japanese template with phonetic "Yomi" properties, as specified in [MS-OXOABKT].

2.2.2.1.2.2   PidTagAttachMethod

This property MUST be set to 1 (**ATTACH_BY_VALUE**). For details, see [MS-OXPROPS] section 2.601.<4>

2.2.2.1.3 Full OAB Message Attachments – Version 4

Multiple compressed files are attached to the OAB version 4 full **OAB**, as specified in [MS-OXOAB]. These are the Data file and one or more **display template** files.

OAB version 4 attachments have their own properties, which are described in the following subsections.

2.2.2.1.3.1   PidTagAttachFilename

This property is set to the values that correspond to each of the files listed in the following table. For details, see [MS-OXPROPS] section 2.593.

OAB file	PidTagAttachFilename value MUST start with	PidTagAttachFilename value MUST be
Data	d	data.oab
Template	l	*
Template	m	*

*The following **ABNF**, as specified in [RFC5234], defines the constraints of the **display template** file name.

```
TmpltFilename = ("lng" LocaleIdentifier ".oab") / ("mac" LocaleIdentifier ".oab")
LocaleIdentifier = (%x31-39 / ALPHA) *HEXDIG;for example, 409 and cc08 but not 0409
```

"LocaleIdentifier" is a value from [MS-LCID], but it can also have the value 8411 to indicate the special Japanese template with phonetic "Yomi" properties, as specified in [MS-OXOABKT].

2.2.2.1.3.2   PidTagAttachMethod

This property MUST be set to 1 (**ATTACH_BY_VALUE**). For details, see [MS-OXPROPS] section 2.601.<5>

2.2.3   Differential OAB Messages

2.2.3.1 Properties and Attachments

2.2.3.1.1 PidTagOfflineAddressBookMessageClass

This property MUST be set to 2 for all differential **OAB** messages. For details, see [MS-OXPROPS] section 2.817.

2.2.3.1.2 Differential OAB Message Attachments – Version 2 and Version 3a

One compressed file is attached to the OAB version 2 or OAB version 3a differential **OAB**, as specified in [MS-OXOAB]. This is a Changes file.

This attachment has its own properties, which are defined in the following subsections.

2.2.3.1.2.1   PidTagAttachFilename

The value for this property SHOULD be "changes.oab". For details, see [MS-OXPROPS] section 2.593.

2.2.3.1.2.2   PidTagAttachMethod

This property MUST be set to 1 (**ATTACH_BY_VALUE**). For details, see [MS-OXPROPS] section 2.601 for details.<6>

2.2.3.1.3 Differential OAB Message Attachments – Version 4

One compressed file, a Changes file, can be attached to the OAB version 4 differential **OAB** message, as specified in [MS-OXOAB].

The Differential Patch file MUST be the first attachment on this message.

These attachments have their own properties, which are defined in the following subsections.

2.2.3.1.3.1   PidTagAttachFilename

This property is set to the value that corresponds to each of the files listed in the following table. For details, see [MS-OXPROPS] section 2.593.

OAB file	PidTagAttachFilename value MUST start with	PidTagAttachFilename value SHOULD be
Differential Patch	b	binpatch.oab
Changes file	c	changes.oab

2.2.3.1.3.2   PidTagAttachMethod

This property MUST be set to 1 (**ATTACH_BY_VALUE**). For details, see [MS-OXPROPS] section 2.601.<7>

3 Protocol Details

3.1 Server Details

Offline address book (**OAB**) messages are kept in folders in the **public folder message store**. There is one folder for each OAB, named for the OAB that it contains.

The server MUST publish the **entry ID** of the **local site**'s Offline Address Book Data Folder ([MS-OXCSTOR] section 2.2.1.1.4) when clients connect to the public folder message store, as specified in the public folder IDs of the **RopLogon** request and response syntax (as specified in [MS-OXCSTOR] section 2.2.1.1).

In the folder for each OAB are subfolders that have a fixed name relative to the OAB version that is contained therein — either "OAB version 2", "OAB version 3a", or "OAB version 4". The messages that contain OAB files are posted to the "OAB version 2", "OAB version 3a", or "OAB version 4" folder, depending on their OAB version.

The OAB folders SHOULD be secure enough such that users cannot add, change, or delete the content in the folders, but administrative users can add, change, or delete the content. The server MUST allow administrative users to customize the security settings to grant read access to administrators or a selected set of users.

The server SHOULD discard old messages when they reach a specified age limit, to prevent the size of the folder from growing without bounds. The server SHOULD allow an administrative user to customize the age limit for messages.<8>

3.1.1 Abstract Data Model

None.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Higher-Layer Triggered Events

None.

3.1.5 Message Processing Events and Sequencing Rules

None.

3.1.6 Timer Events

None.

3.1.7 Other Local Events

None.

3.2   Client Details

Before using this protocol, the client SHOULD use the OAB Retrieval Protocol, as specified in [MS-OXWOAB], if it is available.<9>

Clients get the **entry ID** of their **OAB** folder (the one that contains OAB version 2 and OAB version 4 subfolders) during the **RopLogon** call ([MS-OXCSTOR] section 2.2.1.1) when they connect to the **public folder message store**. This folder is the OAB data folder of the **local site**, as described in the public folder IDs of the **RopLogon** request and response syntax. The client SHOULD use the OAB data folder of the local site as the **Root folder** to start finding its OAB messages. Note that the client SHOULD first check for the existence of the subfolder "OAB version 4" and use OAB version 4 if that subfolder exists. If it does not exist, the client SHOULD then check for the existence of the subfolder "OAB version 2" and use OAB version 2 if that subfolder exists. The client SHOULD ignore any other subfolders. The client relies on an understanding of the **ROPs** in [MS-OXCFOLD] to open the folder and retrieve the hierarchy or contents table, the ROPs in [MS-OXCTABL] to perform table operations on the hierarchy or contents table to find the subfolders with the hard-coded names, and the ROPs in [MS-OXCMSG] to retrieve the messages in each of these folders.

3.2.1   Abstract Data Model

None.

3.2.2   Timers

None.

3.2.3   Initialization

None.

3.2.4   Higher-Layer Triggered Events

None.

3.2.5   Message Processing Events and Sequencing Rules

None.

3.2.6   Timer Events

None.

3.2.7   Other Local Events

None.

4 Protocol Examples

The following is an example of **offline address book (OAB) public folder** content. The OAB contains two **address lists**: "Global Address List," which is represented by one set of messages, and "All Rooms," which is represented by another set of messages. Both address lists include two templates: one with the language **id** value set to "0409" (English), and one with the language **id** value set to "0411" (Japanese). Both have full details data files and differential details files. The first **OAL**, however, has **OAL data sequence number** 2 and only one differential file, whereas the second OAL has OAL data sequence number 4 and three differential files.

Folders:

NON_IPM_SUBTREE

OFFLINE ADDRESS BOOK

/o=First Organization/ou=addrlists/cn=oabs/cn=Offline Address Book

OAB version 2

OAB version 4

The following are the messages in the "OAB version 2" folder:

1. Address list "Global Address List," full OAB version 2 message, sequence number = 2

2. Address list "Global Address List," differential OAB version 2 message, sequence number = 2

3. Address list "All Rooms," full OAB version 2 message, sequence number = 4

4. Address list "All Rooms," differential OAB version 2 message, sequence number = 4

5. Address list "All Rooms," differential OAB version 2 message, sequence number = 3

6. Address list "All Rooms," differential OAB version 2 message, sequence number = 2

The properties of these messages are listed in the following table.

Property	Message 1	Message 2	Message 3	Message 4	Message 5	Message 6
PidTagOfflineAddressBook Name	\Global Address List	Same as 1	\All Rooms	Same as 3	Same as 3	Same as 3
PidTagOfflineAddressBook Sequence	2	2	4	4	3	2
PidTagOfflineAddressBook ContainerGuid	{00010203-0405-0607-0809-0A0B0C0D0E0F }	Same as 1	{10111213-1415-1617-1819-1A1B1C1D1E1F}	Same as 3	Same as 3	Same as 3
PidTagOfflineAddressBook DistinguishedName	/	Same as 1	/guid=aa65bfa24602544d9d71a5f36ce1b7f3	Same as 3	Same as 3	Same as 3
PidTagSortLocaleId	0x409	0x409	0x409	0x409	0x409	0x409
PidTagMessageCodepage	1252	1252	1252	1252	1252	1252

Property	Message 1	Message 2	Message 3	Message 4	Message 5	Message 6
PidTagOfflineAddressBook MessageClass	1	2	1	2	2	2
AttachmentTable	browse2.oab, rndex2.oab, anrdex.oab, details2.oab, lng409.oab, lng411.oab	changes.oab	browse2.oab, rndex2.oab, anrdex.oab, details2.oab, lng409.oab, lng411.oab	changes.oab	changes.oab	changes.oab

The following are the messages in the "OAB version 4" folder:

- "Global Address List" full OAB version 4 message, sequence number = 2

- "Global Address List" differential OAB version 4 message, sequence number = 2

- "All Rooms" full OAB version 4 message, sequence number = 4

- "All Rooms" differential OAB version 4 message, sequence number = 4

- "All Rooms" differential OAB version 4 message, sequence number = 3

- "All Rooms" differential OAB version 4 message, sequence number = 2

- Properties of these messages are listed in the following table.

Property	1	2	3	4	5	6
PidTagOfflineAddressBook Name	\Global Address List	Same as 1	\All Rooms	Same as 3	Same as 3	3
PidTagOfflineAddressBook Sequence	2	2	4	4	3	2
PidTagOfflineAddressBook ContainerGuid	{20212223-2425-2627-2829-2A2B2C2D2E2F }	Same as 1	{30313233-3435-3637-3839-3A3B3C3D3E3F}	Same as 3	Same as 3	Same as 3
PidTagOfflineAddressBook DistinguishedName	/	Same as 1	/guid=aa65bfa24602544d9d71a5f36ce1b7f3	Same as 3	Same as 3	Same as 3
PidTagSortLocaleId	0x409	0x409	0x409	0x409	0x409	0x409
PidTagMessageCodepage	1252	1252	1252	1252	1252	1252
PidTagOfflineAddressBook MessageClass	1	2	1	2	2	2
AttachmentTable	data.oab	binpatc	data.oab, lng409.oab,	binpatc	binpatc	binpatc

Property	1	2	3	4	5	6
	, lng409.oab, lng411.oab	h.oab	lng411.oab	h.oab	h.oab	h.oab

5   Security

OAB version 4 messages contain the results of the **SHA-1 hash** calculation. Note, however, that the SHA-1 hash value is used as an optional means of checksum verification of the downloaded file, and it is not intended to be used as a security feature.

5.1   Security Considerations for Implementers

None.

5.2   Index of Security Parameters

None.

6   Appendix A: 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.

- Microsoft Exchange Server 2003

- Microsoft Exchange Server 2007

- Microsoft Exchange Server 2010

- Microsoft Office Outlook 2003

- Microsoft Office Outlook 2007

- Microsoft Outlook 2010

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 2.2.1: Exchange 2003 supports public folders by default, but public folders have to be configured explicitly on Exchange 2007 or Exchange 2010.

<2> Section 2.2.1.4: Office Outlook 2007 and Outlook 2010 download the **OAB** by using a **Web Distribution Point (WDP)**, thus bypassing the use of public folders so that this property will not be sent over the wire.

<3> Section 2.2.1.5: Office Outlook 2007 and Microsoft Outlook 2010 download the OAB by using a WDP, thus bypassing the use of public folders so that this property will not be sent over the wire.

<4> Section 2.2.2.1.2.2: Office Outlook 2007 and Outlook 2010 download the OAB by using a WDP, thus bypassing the use of public folders so that this property will not be sent over the wire.

<5> Section 2.2.2.1.3.2: Office Outlook 2007 and Outlook 2010 download the OAB by using a WDP, thus bypassing the use of public folders so that this property will not be sent over the wire.

<6> Section 2.2.3.1.2.2: Office Outlook 2007 and Outlook 2010 download the OAB by using a WDP, thus bypassing the use of public folders so that this property will not be sent over the wire.

<7> Section 2.2.3.1.3.2: Office Outlook 2007 and Outlook 2010 download the OAB by using a WDP, thus bypassing the use of public folders so that this property will not be sent over the wire.

<8> Section 3.1: Exchange 2003, Exchange 2007, and Exchange 2010 automatically remove messages that have been stored for 30 days and not modified during that time.

<9> Section 3.2: Office Outlook 2003 does not use the OAB Retrieval Protocol as specified in [MS-OXWOAB]. Office Outlook 2007 and Outlook 2010 examine the **rgwServerVersion** value (as specified in [MS-OXCRPC] section 3.1.4.1) that is returned by the **EcDoConnectEx** method (as specified in [MS-OXCRPC] section 3.1.4.1) to determine which protocol to use. If the second byte contains a value that is greater than or equal to 8, Office Outlook 2007 and Outlook 2010 use the Autodiscover HTTP Service Protocol (as specified in [MS-OXDISCO]), which will direct the client to use the OAB Retrieval Protocol or the OAB Public Folder Retrieval Protocol. If the second byte is less than 8, the client uses the OAB Public Folder Retrieval Protocol.

7 Change Tracking

No table of changes is available. The document is either new or has had no changes since its last release.

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