[MS-OXSHARE]:

Sharing Message Object 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	Revised and edited technical content.
12/2/2009	1.02	Minor	Updated references.
12/3/2008	1.03	Minor	Updated IP notice.
4/10/2009	2.0	Major	Updated technical content and applicable product releases.
7/15/2009	3.0	Major	Revised and edited for technical content.
11/4/2009	3.0.1	Editorial	Revised and edited the technical content.
2/10/2010	3.0.1	None	Version 3.0.1 release
5/5/2010	3.0.2	Editorial	Revised and edited the technical content.
8/4/2010	3.1	Minor	Clarified the meaning of the technical content.
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3/18/2011	4.0	None	No changes to the meaning, language, and formatting of the technical content.
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9/14/2016	6.0	None	No changes to the meaning, language, or formatting of the technical content.
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10/1/2018	6.1	None	No changes to the meaning, language, or formatting of the technical content.
4/22/2021	7.0	Major	Significantly changed the technical content.
8/17/2021	8.0	Major	Significantly changed the technical content.

Table of Contents

1 Introduction

The Sharing Message Object Protocol is used to share **mailbox** folders between clients. This protocol extends the Message and Attachment Object Protocol, which is described in [MS-OXCMSG].

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.

big-endian: Multiple-byte values that are byte-ordered with the most significant byte stored in the memory location with the lowest address.

Folder object: A messaging construct that is typically used to organize data into a hierarchy of objects containing Message objects and folder associated information (FAI) Message objects.

handle: Any token that can be used to identify and access an object such as a device, file, or a window.

long ID (LID): A 32-bit quantity that, in combination with a GUID, defines a **named property**.

mailbox: A message store that contains email, calendar items, and other **Message objects** for a single recipient.

Message object: A set of properties that represents an email message, appointment, contact, or other type of personal-information-management object. In addition to its own properties, a Message object contains recipient properties that represent the addressees to which it is addressed, and an attachments table that represents any files and other Message objects that are attached to it.

named property: A property that is identified by both a GUID and either a string name or a 32-bit identifier.

named property set: A GUID that groups related named properties into a set.

property ID: A 16-bit numeric identifier of a specific attribute. A property ID does not include any property type information.

property name: A string that, in combination with a property set, identifies a **named property**.

recipient: An entity that is in an address list, can receive email messages, and contains a set of attributes. Each attribute has a set of associated values.

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.

ROP request: See ROP request buffer.

ROP response: See ROP response buffer.

sharing invitation: A type of **Sharing Message object** that informs a user that the user was granted access to another user's folder and provides the information necessary to locate that folder.

Sharing Message object: A **Message object** that is used to inform a recipient that they were granted access to another user's folder, request access to a recipient's folder, or respond to a request for access to a folder.

sharing provider: A software agent that is responsible for properly generating and processing a predefined **Sharing Message object** format.

sharing request: A type of **Sharing Message object** that is used to request access to a user's folder.

sharing response: A type of **Sharing Message object** that is used to respond to a sharing request.

special folder: One of a default set of **Folder objects** that can be used by an implementation to store and retrieve user data objects.

Uniform Resource Locator (URL): A string of characters in a standardized format that identifies a document or resource on the World Wide Web. The format is as specified in [RFC1738].

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-OXCDATA] Microsoft Corporation, "Data Structures".

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

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

[MS-OXCPERM] Microsoft Corporation, "Exchange Access and Operation Permissions Protocol".

[MS-OXCPRPT] Microsoft Corporation, "Property and Stream Object Protocol".

[MS-OXOABK] Microsoft Corporation, "Address Book Object Protocol".

[MS-OXOMSG] Microsoft Corporation, "Email Object Protocol".

[MS-OXOSFLD] Microsoft Corporation, "Special Folders Protocol".

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

[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

1.2.2 Informative References

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

[MS-OXODLGT] Microsoft Corporation, "Delegate Access Configuration Protocol".

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

1.3 Overview

The Sharing Message Object Protocol allows a user to invite, request, accept, and deny the sharing of that user's **mailbox** folder. To communicate about the sharing of a folder, this protocol uses the **Sharing Message object**. The properties that are specific to a Sharing Message object facilitate granting access to a folder, requesting access to a folder, or responding to a request for access to a folder.

This protocol extends the Message and Attachment Object Protocol, which is described in [MS-OXCMSG], in that it defines new properties on a **Message object** and adds constraints to the existing properties of a Message object.

1.4 Relationship to Other Protocols

This protocol has the same dependencies as the Message and Attachment Object Protocol, as described in [MS-OXCMSG]. This protocol is a peer of the Email Object Protocol, which is described in [MS-OXOMSG].

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

1.5 Prerequisites/Preconditions

The Sharing Message Object Protocol has the same prerequisites and preconditions as the Message and Attachment Object Protocol, as specified in [MS-OXCMSG].

1.6 Applicability Statement

The client can use this protocol to send and respond to requests about the sharing of a folder in the user's **mailbox**.

The Sharing Message Object Protocol cannot be used to convey information about any type of object other than a **Folder object**.

1.7 Versioning and Capability Negotiation

None.

1.8 Vendor-Extensible Fields

This protocol provides no vendor-extensibility beyond what is specified in [MS-OXCMSG].

1.9 Standards Assignments

None.

2 Messages

2.1 Transport

The Sharing Message Object Protocol uses the same underlying transport as that used by the Message and Attachment Object Protocol, as specified in [MS-OXCMSG].

2.2 Message Syntax

A **Sharing Message object** can be created and modified by clients and servers. Except where noted, this section defines constraints under which both clients and servers operate.

Clients operate on Sharing Message objects by using the Email Object Protocol specified in [MS-OXOMSG] and the Message and Attachment Object Protocol specified in [MS-OXCMSG]. How a server operates on Sharing Message objects is implementation-dependent, but the results of any such operation MUST be exposed to clients in a manner that is consistent with the Sharing Message Object Protocol.

Unless otherwise specified, a Sharing Message object adheres to all property constraints specified in [MS-OXPROPS] and all property constraints specified in [MS-OXCMSG].

Where a property's value is specified as a hexadecimal string representation of a binary value, the characters composing the string represent the hexadecimal digits that reflect the byte sequence of the binary value. For example, the string "00000000DCA740C8" is the hexadecimal string representation of the following byte sequence.

```
00 00 00 00 DC A7 40 C8
```

Where a property's value is specified as a hexadecimal string representation of an integer value, the characters composing the string represent the hexadecimal digits that reflect the integer value in **big-endian** format. Leading "0" characters are not included. For example, the hexadecimal string representation of the integer 0x0000010B is "10B".

2.2.1 Common Message Object Properties

The following properties are general properties used by a **Sharing Message object**.

- **PidTagNormalizedSubject** property ([MS-OXCMSG] section 2.2.1.10)
- **PidTagSubjectPrefix** property ([MS-OXCMSG] section 2.2.1.9)

2.2.2 Common Sharing Message Object Properties

The properties specified in section 2.2.2.1 through section 2.2.2.17 are common to all types of **Sharing Message objects**.

2.2.2.1 PidLidSharingCapabilities Property

Type: **PtypInteger32** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingCapabilities** property ([MS-OXPROPS] section 2.237) MUST be set to one of the following values.

Value	Meaning
0x00040290	The **Sharing Message object** relates to a **special folder**.
0x000402B0	The Sharing Message object does not relate to a special folder.

2.2.2.2 PidNameXSharingCapabilities Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidNameXSharingCapabilities** property ([MS-OXPROPS] section 2.488) contains the hexadecimal string representation of the value of the **PidLidSharingCapabilities** property (section 2.2.2.1), as specified in the following table. The string does not include the leading zeros of the hexadecimal value.

Hex value	Value of the PidNameXSharingCapabilities property
0x00040290	"40290"
0x000402B0	"402B0"

2.2.2.3 PidLidSharingConfigurationUrl Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingConfigurationUrl** property ([MS-OXPROPS] section 2.238) MUST be set to a zero-length string.

2.2.2.4 PidNameXSharingConfigUrl Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidNameXSharingConfigUrl** property ([MS-OXPROPS] section 2.489) MUST be set to the same value as the **PidLidSharingConfigurationUrl** property (section 2.2.2.3).

2.2.2.5 PidLidSharingFlavor Property

Type: **PtypInteger32** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingFlavor** property ([MS-OXPROPS] section 2.245) specifies the type of **Sharing Message object**. This property MUST be set to one of the following values.

Value	Meaning
0x00020310	A **sharing invitation** for a **special folder**.
0x00000310	A sharing invitation for a folder that is not a special folder.
0x00020500	A **sharing request** for a special folder.
0x00020710	Both a sharing invitation for a special folder and a sharing request for the **recipient's** equivalent special folder.
0x00025100	A **sharing response** that is denying a sharing request.

Value	Meaning
0x00023310	A sharing response that is accepting a sharing request.

2.2.2.6 PidNameXSharingFlavor Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidNameXSharingFlavor** property ([MS-OXPROPS] section 2.491) MUST be set to the hexadecimal string representation of the value of the **PidLidSharingFlavor** property (section 2.2.2.5), as specified in the following table. The string does not include the leading zeros of the hexadecimal value.

Hex value	Value of the PidNameXSharingFlavor property
0x00020310	"20310"
0x00000310	"310"
0x00020500	"20500"
0x00020710	"20710"
0x00025100	"25100"
0x00023310	"23310"

2.2.2.7 PidLidSharingInitiatorEntryId Property

Type: **PtypBinary** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingInitiatorEntryId** property ([MS-OXPROPS] section 2.248) MUST be set to the value of the **PidTagEntryId** property ([MS-OXOABK] section 2.2.3.2) for the **Address Book object** of the currently logged on user.

2.2.2.8 PidLidSharingInitiatorName Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingInitiatorName** property ([MS-OXPROPS] section 2.249) MUST be set to the value of the **PidTagDisplayName** property ([MS-OXOABK] section 2.2.3.1) from the **Address Book object** that is identified by the **PidLidSharingInitiatorEntryId** property (section 2.2.2.7) and MAY<1> be ignored upon receipt.

2.2.2.9 PidLidSharingInitiatorSmtp Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingInitiatorSmtp** property ([MS-OXPROPS] section 2.250) MUST be set to the value of the **PidTagSmtpAddress** property ([MS-OXOABK] section 2.2.3.21) from the **Address Book object** that is identified by the **PidLidSharingInitiatorEntryId** property (section 2.2.2.7) and MAY<2> be ignored upon receipt.

2.2.2.10 PidLidSharingLocalType Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingLocalType** property ([MS-OXPROPS] section 2.259) MUST be set to the value of the **PidTagContainerClass** property ([MS-OXCFOLD] section 2.2.2.2.2.3) of the folder that is to be shared. For a **sharing response**, the **PidLidSharingLocalType** property is set to the value of the **PidLidSharingLocalType** property of the associated **sharing request**.

The valid values are listed in the following table. These values specify folder types. For details about these folder types, see ([MS-OXOSFLD] section 2.2.1.

Type of folder	Value
Calendar	"IPF.Appointment"
Contacts	"IPF.Contact"
Tasks	"IPF.Task"
Notes	"IPF.StickyNote"
Journal	"IPF.Journal"

2.2.2.11 PidNameXSharingLocalType Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidNameXSharingLocalType** property ([MS-OXPROPS] section 2.493) MUST be set to the same value as the **PidLidSharingLocalType** property (section 2.2.2.10).

2.2.2.12 PidLidSharingProviderGuid Property

Type: **PtypBinary** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingProviderGuid** property ([MS-OXPROPS] section 2.266) MUST be set to %xAE.F0.06.00.00.00.00.00.C0.00.00.00.00.00.00.46.

2.2.2.13 PidNameXSharingProviderGuid Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidNameXSharingProviderGuid** property ([MS-OXPROPS] section 2.494) MUST be set to the hexadecimal string representation of the value of the **PidLidSharingProviderGuid** property (section 2.2.2.12). That is, "AEF0060000000000C000000000000046".

2.2.2.14 PidLidSharingProviderName Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingProviderName** property ([MS-OXPROPS] section 2.267) specifies a user-displayable name of the **sharing provider** that is identified by the **PidLidSharingProviderGuid** property (section 2.2.2.12). This property MAY<3> be ignored upon receipt.

2.2.2.15 PidNameXSharingProviderName Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidNameXSharingProviderName** property ([MS-OXPROPS] section 2.495) MUST be set to the same value as **PidLidSharingProviderName** (section 2.2.2.14) and MAY<4> be ignored upon receipt.

2.2.2.16 PidLidSharingProviderUrl Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingProviderUrl** property ([MS-OXPROPS] section 2.268) specifies a **Uniform Resource Locator (URL)** for the **sharing provider** that is identified by the **PidLidSharingProviderGuid** property (section 2.2.2.12). This property MAY<5> be ignored upon receipt.

2.2.2.17 PidNameXSharingProviderUrl Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidNameXSharingProviderUrl** property ([MS-OXPROPS] section 2.496) MUST be set to the same value as the **PidLidSharingProviderUrl** property (section 2.2.2.16) and MAY<6> be ignored upon receipt.

2.2.3 Sharing Invitation and Response Acceptance Properties

The properties specified in section 2.2.3.1 through section 2.2.3.8 apply only to a **sharing invitation**, which is a **Sharing Message object** with its **PidLidSharingFlavor** property (section 2.2.2.5) set to either 0x00020310 or 0x00000310, and to a **sharing response** acceptance, which is a Sharing Message object with its **PidLidSharingFlavor** property set to 0x0023310. For all other types of Sharing Message objects, these properties SHOULD NOT<7> be set and MUST be ignored upon receipt.

2.2.3.1 PidLidSharingRemoteName Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingRemoteName** property ([MS-OXPROPS] section 2.277) MUST be set to the value of the **PidTagDisplayName** property ([MS-OXCFOLD] section 2.2.2.2.2.5) of the folder that is being shared.

2.2.3.2 PidNameXSharingRemoteName Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidNameXSharingRemoteName** property ([MS-OXPROPS] section 2.497) MUST be set to the same value as the **PidLidSharingRemoteName** property (section 2.2.3.1).

2.2.3.3 PidLidSharingRemoteStoreUid Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingRemoteStoreUid** property ([MS-OXPROPS] section 2.280) MUST be set to the hexadecimal string representation of the value of the **PidTagStoreEntryId** property ([MS-OXPROPS] section 2.1028) of the folder that is being shared.

2.2.3.4 PidNameXSharingRemoteStoreUid Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidNameXSharingRemoteStoreUid** property ([MS-OXPROPS] section 2.499) MUST be set to the same value as **PidLidSharingRemoteStoreUid** (section 2.2.3.3).

2.2.3.5 PidLidSharingRemoteType Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingRemoteType** property ([MS-OXPROPS] section 2.281) MUST be set to the same value as the **PidLidSharingLocalType** property (section 2.2.2.10) and MAY<8> be ignored upon receipt.

2.2.3.6 PidNameXSharingRemoteType Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidNameXSharingRemoteType** property ([MS-OXPROPS] section 2.500) MUST be set to the same value as **PidLidSharingRemoteType** (section 2.2.3.5) and MAY<9> be ignored.

2.2.3.7 PidLidSharingRemoteUid Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingRemoteUid** property ([MS-OXPROPS] section 2.282) MUST be set to the hexadecimal string representation of the value of the **PidTagEntryId** property ([MS-OXCPERM] section 2.2.4) of the folder that is being shared.

2.2.3.8 PidNameXSharingRemoteUid Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidNameXSharingRemoteUid** property ([MS-OXPROPS] section 2.501) MUST be set to the same value as the **PidLidSharingRemoteUid** property (section 2.2.3.7).

2.2.4 Sharing Request Properties

The properties specified in sections 2.2.4.1 and 2.2.4.2 apply only to a **sharing request** to which the user has responded. A sharing request has its **PidLidSharingFlavor** property (section 2.2.2.5) set to either 0x00020500 or 0x00020710. For all other types of **Sharing Message objects**, the properties specified in sections 2.2.4.1 and 2.2.4.2 MUST NOT be set.

2.2.4.1 PidLidSharingResponseTime Property

Type: **PtypTime** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingResponseTime** property ([MS-OXPROPS] section 2.285) specifies the time at which the **recipient** of the **sharing request** sent a **sharing response**.

2.2.4.2 PidLidSharingResponseType Property

Type: **PtypInteger32** ([MS-OXCDATA] section 2.11.1)

The **PidLidSharingResponseType** property ([MS-OXPROPS] section 2.286) specifies the type of **sharing response** with which the **recipient** of the **sharing request** responded. This property MUST be set to one of the following values.

Value	Meaning
0x00000001	Acceptance of the sharing request
0x00000002	Denial of the sharing request

2.2.5 Additional Property Constraints

The properties specified in sections 2.2.5.1 and 2.2.5.2 have additional constraints beyond what is specified in [MS-OXCMSG]. These properties apply to all types of **Sharing Message objects**.

2.2.5.1 PidNameContentClass Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidNameContentClass** property ([MS-OXCMSG] section 2.2.1.48) MUST be set to "Sharing".

2.2.5.2 PidTagMessageClass Property

Type: **PtypString** ([MS-OXCDATA] section 2.11.1)

The **PidTagMessageClass** property ([MS-OXCMSG] section 2.2.1.3) MUST be set to "IPM.Sharing" or a value that begins with "IPM.Sharing.".

2.2.6 Ignored Properties

The following properties SHOULD NOT<10> be set and MUST be ignored upon receipt:

- **PidLidSharingAnonymity** ([MS-OXPROPS] section 2.234)
- **PidLidSharingBindingEntryId** ([MS-OXPROPS] section 2.235)
- **PidLidSharingBrowseUrl** ([MS-OXPROPS] section 2.236)
- **PidNameXSharingBrowseUrl** ([MS-OXPROPS] section 2.487)
- **PidLidSharingDataRangeEnd** ([MS-OXPROPS] section 2.239)
- **PidLidSharingDataRangeStart** ([MS-OXPROPS] section 2.240)
- **PidLidSharingDetail** ([MS-OXPROPS] section 2.241)
- **PidLidSharingExtensionXml** ([MS-OXPROPS] section 2.242)
- **PidNameXSharingExendedCaps** ([MS-OXPROPS] section 2.490)
- **PidLidSharingFilter** ([MS-OXPROPS] section 2.243)
- **PidLidSharingFlags** ([MS-OXPROPS] section 2.244)
- **PidLidSharingFolderEntryId** ([MS-OXPROPS] section 2.246)
- **PidLidSharingIndexEntryId** ([MS-OXPROPS] section 2.247)

- **PidLidSharingInstanceGuid** ([MS-OXPROPS] section 2.251)
- **PidNameXSharingInstanceGuid** ([MS-OXPROPS] section 2.492)
- **PidLidSharingLastAutoSyncTime** ([MS-OXPROPS] section 2.252)
- **PidLidSharingLastSyncTime** ([MS-OXPROPS] section 2.253)
- **PidLidSharingLocalComment** ([MS-OXPROPS] section 2.254)
- **PidLidSharingLocalLastModificationTime** ([MS-OXPROPS] section 2.255)
- **PidLidSharingLocalName** ([MS-OXPROPS] section 2.256)
- **PidLidSharingLocalPath** ([MS-OXPROPS] section 2.257)
- **PidLidSharingLocalStoreUid** ([MS-OXPROPS] section 2.258)
- **PidLidSharingLocalUid** ([MS-OXPROPS] section 2.260)
- **PidLidSharingOriginalMessageEntryId** ([MS-OXPROPS] section 2.261)
- **PidLidSharingParentBindingEntryId** ([MS-OXPROPS] section 2.262)
- **PidLidSharingParticipants** ([MS-OXPROPS] section 2.263)
- **PidLidSharingPermissions** ([MS-OXPROPS] section 2.264)
- **PidLidSharingProviderExtension** ([MS-OXPROPS] section 2.265)
- **PidLidSharingRangeEnd** ([MS-OXPROPS] section 2.269)
- **PidLidSharingRangeStart** ([MS-OXPROPS] section 2.270)
- **PidLidSharingReciprocation** ([MS-OXPROPS] section 2.271)
- **PidLidSharingRemoteByteSize** ([MS-OXPROPS] section 2.272)
- **PidLidSharingRemoteComment** ([MS-OXPROPS] section 2.273)
- **PidLidSharingRemoteCrc** ([MS-OXPROPS] section 2.274)
- **PidLidSharingRemoteLastModificationTime** ([MS-OXPROPS] section 2.275)
- **PidLidSharingRemoteMessageCount** ([MS-OXPROPS] section 2.276)
- **PidLidSharingRemotePass** ([MS-OXPROPS] section 2.278)
- **PidLidSharingRemotePath** ([MS-OXPROPS] section 2.279)
- **PidNameXSharingRemotePath** ([MS-OXPROPS] section 2.498)
- **PidLidSharingRemoteUser** ([MS-OXPROPS] section 2.283)
- **PidLidSharingRemoteVersion** ([MS-OXPROPS] section 2.284)
- **PidLidSharingRoamLog** ([MS-OXPROPS] section 2.287)
- **PidLidSharingStart** ([MS-OXPROPS] section 2.288)
- **PidLidSharingStatus** ([MS-OXPROPS] section 2.289)
- **PidLidSharingStop** ([MS-OXPROPS] section 2.290)

- **PidLidSharingSyncFlags** ([MS-OXPROPS] section 2.291)
- **PidLidSharingSyncInterval** ([MS-OXPROPS] section 2.292)
- **PidLidSharingTimeToLive** ([MS-OXPROPS] section 2.293)
- **PidLidSharingTimeToLiveAuto** ([MS-OXPROPS] section 2.294)
- **PidLidSharingWorkingHoursDays** ([MS-OXPROPS] section 2.295)
- **PidLidSharingWorkingHoursEnd** ([MS-OXPROPS] section 2.296)
- **PidLidSharingWorkingHoursStart** ([MS-OXPROPS] section 2.297)
- **PidLidSharingWorkingHoursTimeZone** ([MS-OXPROPS] section 2.298)

3 Protocol Details

3.1 Client Details

The client creates and manipulates a **Sharing Message object** and in all other ways operates within the client role, as specified in [MS-OXCMSG].

3.1.1 Abstract Data Model

This section describes a conceptual model of possible data organization that an implementation maintains to participate in this protocol. The described organization is provided to facilitate the explanation of how the protocol behaves. This document does not mandate that implementations adhere to this model as long as their external behavior is consistent with that described in this document.

A **Sharing Message object** extends the **Message object**. In all other ways, the abstract data model of this protocol does not differ from that specified in [MS-OXCMSG] section 3.1.1.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Higher-Layer Triggered Events

3.1.4.1 Creating a Sharing Invitation

When a user creates a **sharing invitation**, the client creates a **Message object** as specified in [MS-OXCMSG] and sets properties in accordance with the requirements in section 2.2.1 through section 2.2.3 and section 2.2.5. The client then addresses and sends the message as specified in [MS-OXOMSG].

3.1.4.2 Creating a Sharing Request

When a user creates a **sharing request**, the client creates a **Message object** as specified in [MS-OXCMSG] and sets properties in accordance with the requirements in sections 2.2.1, 2.2.2, and 2.2.5. The client then addresses and sends the message as specified in [MS-OXOMSG].

3.1.4.3 Creating a Sharing Response – Accept

When a user creates a **sharing response** to accept a **sharing request**, the client creates a **Message object** as specified in [MS-OXCMSG] and sets properties in accordance with the requirements in section 2.2.1 through section 2.2.3 and section 2.2.5. The client addresses and sends the response as specified in [MS-OXOMSG].

The client then opens the sharing request as specified in [MS-OXCMSG] and sets the properties in accordance with the requirements in section 2.2.4 to indicate that the request was accepted. The client saves the sharing request as specified in [MS-OXCMSG].

The client can determine the **special folder** that is being requested for sharing by examining the **PidLidSharingLocalType** property (section 2.2.2.10) of the sharing request.

3.1.4.4 Creating a Sharing Response – Deny

When a user creates a **sharing response** to deny a **sharing request**, the client creates a **Message object** as specified in [MS-OXCMSG] and sets properties in accordance with the requirements in sections 2.2.1, 2.2.2, and 2.2.5. The client addresses and sends the response as specified in [MS-OXOMSG].

The client then opens the sharing request as specified in [MS-OXCMSG] and sets the properties in accordance with the requirements in section 2.2.4 to indicate that the request was denied. The client saves the sharing request as specified in [MS-OXCMSG].

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 Server Details

The server processes a client's requests regarding a **Sharing Message object** and in all other ways operates within the server role as specified in [MS-OXCMSG].

3.2.1 Abstract Data Model

This section describes a conceptual model of possible data organization that an implementation maintains to participate in this protocol. The described organization is provided to facilitate the explanation of how the protocol behaves. This document does not mandate that implementations adhere to this model as long as their external behavior is consistent with that described in this document.

A **Sharing Message object** extends the **Message object**. In all other ways, the abstract data model of this protocol does not differ from that specified in [MS-OXCMSG] section 3.2.1.

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

The server responds to client requests as specified in [MS-OXCMSG] section 3.2.5.

3.2.6 Timer Events

None.

3.2.7 Other Local Events

None.

4 Protocol Examples

Kendall Keil wants to see Ryan Gregg's calendar **special folder**. Kendall sends a **sharing request** to Ryan and Ryan responds.

The following is a description of what a client might do to accomplish this scenario and the responses a server might return. For details about the **remote operations (ROPs)** used in this example, see [MS-OXCPRPT] and [MS-OXCMSG].

Before manipulating **Sharing Message objects**, the client sends a **RopGetPropertyIdsFromNames ROP request** ([MS-OXCROPS] section 2.2.8.1) to ask the server to map each **named property** to a **property ID**. The following table lists each named property with its **named property set** GUID and its **long ID (LID)** or **property name**. The server's **RopGetPropertyIdsFromNames ROP response** provides the corresponding property IDs, as shown in the subsequent table.

Named property	Property set GUID	LID or property name
PidNameContentClass (section 2.2.5.1)	{00020386-0000-0000-c000-000000000046}	Content-class
PidLidSharingProviderGuid (section 2.2.2.12)	{00062040-0000-0000-C000-000000000046}	0x00008A01
PidNameXSharingProviderGuid (section 2.2.2.13)	{00020386-0000-0000-C000-000000000046}	X-Sharing-Provider-GUID
PidLidSharingProviderName (section 2.2.2.14)	{00062040-0000-0000-C000-000000000046}	0x00008A02
PidNameXSharingProviderName (section 2.2.2.15)	{00020386-0000-0000-C000-000000000046}	X-Sharing-Provider-Name
PidLidSharingProviderUrl (section 2.2.2.16)	{00062040-0000-0000-C000-000000000046}	0x00008A03
PidNameXSharingProviderUrl (section 2.2.2.17)	{00020386-0000-0000-C000-000000000046}	X-Sharing-Provider-URL
PidLidSharingConfigurationUrl (section 2.2.2.3)	{00062040-0000-0000-C000-000000000046}	0x00008A24
PidNameXSharingConfigUrl (section 2.2.2.4)	{00020386-0000-0000-C000-000000000046}	X-Sharing-Config-URL
PidLidSharingFlavor (section 2.2.2.5)	{00062040-0000-0000-C000-000000000046}	0x00008A18
PidNameXSharingFlavor (section 2.2.2.6)	{00020386-0000-0000-C000-000000000046}	X-Sharing-Flavor
PidLidSharingCapabilities (section 2.2.2.1)	{00062040-0000-0000-C000-000000000046}	0x00008A17
PidNameXSharingCapabilities (section 2.2.2.2)	{00020386-0000-0000-C000-000000000046}	X-Sharing-Capabilities
PidLidSharingLocalType (section 2.2.2.10)	{00062040-0000-0000-C000-000000000046}	0x00008A14
PidNameXSharingLocalType (section 2.2.2.11)	{00020386-0000-0000-C000-000000000046}	X-Sharing-Local-Type

Named property	Property set GUID	LID or property name
PidLidSharingInitiatorEntryId (section 2.2.2.7)	{00062040-0000-0000-C000-000000000046}	0x00008A09
PidLidSharingInitiatorName (section 2.2.2.8)	{00062040-0000-0000-C000-000000000046}	0x00008A07
PidLidSharingInitiatorSmtp (section 2.2.2.9)	{00062040-0000-0000-C000-000000000046}	0x00008A08
PidLidSharingRemoteName (section 2.2.3.1)	{00062040-0000-0000-C000-000000000046}	0x00008A05
PidNameXSharingRemoteName (section 2.2.3.2)	{00020386-0000-0000-C000-000000000046}	X-Sharing-Remote-Name
PidLidSharingRemoteType (section 2.2.3.5)	{00062040-0000-0000-C000-000000000046}	0x00008A1D
PidNameXSharingRemoteType (section 2.2.3.6)	{00020386-0000-0000-C000-000000000046}	X-Sharing-Remote-Type
PidLidSharingRemoteUid (section 2.2.3.7)	{00062040-0000-0000-C000-000000000046}	0x00008A06
PidNameXSharingRemoteUid (section 2.2.3.8)	{00020386-0000-0000-C000-000000000046}	X-Sharing-Remote-Uid
PidLidSharingRemoteStoreUid (section 2.2.3.3)	{00062040-0000-0000-C000-000000000046}	0x00008A48
PidNameXSharingRemoteStoreUid (section 2.2.3.4)	{00020386-0000-0000-C000-000000000046}	X-Sharing-Remote-Store-Uid
PidLidSharingResponseType (section 2.2.4.2)	{00062040-0000-0000-C000-000000000046}	0x00008A27
PidLidSharingResponseTime (section 2.2.4.1)	{00062040-0000-0000-C000-000000000046}	0x00008A28

The server sends a **RopGetPropertyIdsFromNames** ROP response with the following property IDs, which will be used in the examples that follow. (The actual property IDs are at the discretion of the server.)

Property	Property ID
PidNameContentClass	0x806D
PidLidSharingProviderGuid	0x8243
PidNameXSharingProviderGuid	0x836F
PidLidSharingProviderName	0x8244
PidNameXSharingProviderName	0x8370
PidLidSharingProviderUrl	0x8245
PidNameXSharingProviderUrl	0x8371
PidLidSharingConfigurationUrl	0x83D0

Property	Property ID
PidNameXSharingConfigUrl	0x8377
PidLidSharingFlavor	0x823D
PidNameXSharingFlavor	0x836D
PidLidSharingCapabilities	0x823C
PidNameXSharingCapabilities	0x836C
PidLidSharingLocalType	0x824F
PidNameXSharingLocalType	0x8379
PidLidSharingInitiatorEntryId	0x8249
PidLidSharingInitiatorName	0x8029
PidLidSharingInitiatorSmtp	0x8248
PidLidSharingRemoteName	0x8026
PidNameXSharingRemoteName	0x8373
PidLidSharingRemoteType	0x8247
PidNameXSharingRemoteType	0x8376
PidLidSharingRemoteUid	0x8246
PidNameXSharingRemoteUid	0x8374
PidLidSharingRemoteStoreUid	0x83E1
PidNameXSharingRemoteStoreUid	0x8375
PidLidSharingResponseType	0x83E4
PidLidSharingResponseTime	0x83E3

4.1 Sending a Sharing Request

Kendall's client creates a **sharing request** by using the **RopCreateMessage ROP** ([MS-OXCROPS] section 2.2.6.2). The server returns a success code and a **handle** to a **Message object**.

The client then sets the properties on the sharing request by using the **RopSetProperties** ROP ([MS-OXCROPS] section 2.2.8.6), as shown in the following table.

Property	Property ID	Property type	Value
PidTagMessageClass ([MS-OXCMSG] section 2.2.1.3)	0x001A	**PtypString** ([MS-OXCDATA] section 2.11.1)	"IPM.Sharing"
PidNameContentClass (section 2.2.5.1)	0x806D	**PtypString**	"Sharing"
PidTagNormalizedSubject ([MS-	0x0E1D	**PtypString**	"Sharing request: calendar"

Property	Property ID	Property type	Value
OXCMSG] section 2.2.1.10)			
PidTagSubjectPrefix ([MS-OXCMSG] section 2.2.1.9)	0x003D	**PtypString**	"" (a zero-length string)
PidLidSharingProviderGuid (section 2.2.2.12)	0x8243	**PtypBinary** ([MS-OXCDATA] section 2.11.1)	*
PidNameXSharingProviderGuid (section 2.2.2.13)	0x836F	**PtypString**	"AEF0060000000000C000000000000046"
PidLidSharingProviderName (section 2.2.2.14)	0x8244	**PtypString**	"Microsoft Exchange"
PidNameXSharingProviderName (section 2.2.2.15)	0x8370	**PtypString**	"Microsoft Exchange"
PidLidSharingProviderUrl (section 2.2.2.16)	0x8245	**PtypString**	"HTTP://www.microsoft.com/exchange"
PidNameXSharingProviderUrl (section 2.2.2.17)	0x8371	**PtypString**	"HTTP://www.microsoft.com/exchange"
PidLidSharingConfigurationUrl (section 2.2.2.3)	0x83D0	**PtypString**	"" (a zero-length string)
PidNameXSharingConfigUrl (section 2.2.2.4)	0x8377	**PtypString**	"" (a zero-length string)
PidLidSharingFlavor (section 2.2.2.5)	0x823D	**PtypInteger32** ([MS-OXCDATA] section 2.11.1)	0x00020500
PidNameXSharingFlavor (section 2.2.2.6)	0x836D	**PtypString**	"20500"
PidLidSharingCapabilities (section 2.2.2.1)	0x823C	**PtypInteger32**	0x00040290
PidNameXSharingCapabilities (section 2.2.2.2)	0x836C	**PtypString**	"40290"
PidLidSharingLocalType (section 2.2.2.10)	0x824F	**PtypString**	"IPF.Appointment"
PidNameXSharingLocalType (section 2.2.2.11)	0x8379	**PtypString**	"IPF.Appointment"
PidLidSharingInitiatorEntryId (section 2.2.2.7)	0x8249	**PtypBinary**	**
PidLidSharingInitiatorName (section 2.2.2.8)	0x8029	**PtypString**	"user12"
PidLidSharingInitiatorSmtp (section 2.2.2.9)	0x8248	**PtypString**	"user12@fabrikam.com"

* The following data shows the value of the **PidLidSharingProviderGuid** property. The size of the value is 16 bytes.

```
0000: AE F0 06 00 00 00 00 00 C0 00 00 00 00 00 00 46 ...............F
```

** The following data shows the value of the **PidLidSharingInitiatorEntryId** property. The size of the value is 125 bytes.

```
0000: 00 00 00 00 DC A7 40 C8 C0 42 10 1A B4 B9 08 00 ......@..B......
0010: 2B 2F E1 82 01 00 00 00 00 00 00 00 2F 6F 3D 46 +/........../o=F
0020: 69 72 73 74 20 4F 72 67 61 6E 69 7A 61 74 69 6F irst Organizatio
0030: 6E 2F 6F 75 3D 45 78 63 68 61 6E 67 65 20 41 64 n/ou=Exchange Ad
0040: 6D 69 6E 69 73 74 72 61 74 69 76 65 20 47 72 6F ministrative Gro
0050: 75 70 20 28 46 59 44 49 42 4F 48 46 32 33 53 50 up (FYDIBOHF23SP
0060: 44 4C 54 29 2F 63 6E 3D 52 65 63 69 70 69 65 6E DLT)/cn=Recipien
0070: 74 73 2F 63 6E 3D 75 73 65 72 31 32 00          ts/cn=user12.
```

After addressing the message as described in [MS-OXOMSG], the client sends the message to Ryan by using the **RopSubmitMessage** ROP ([MS-OXCROPS] section 2.2.7.1) and then releases the Message object by using the **RopRelease** ROP ([MS-OXCROPS] section 2.2.15.3).

4.2 Denying a Sharing Request

Ryan wants to send a **sharing response** denying the **sharing request** that is described in section 4.1. The client creates a new **Message object** by using the **RopCreateMessage ROP** ([MS-OXCROPS] section 2.2.6.2). The server returns a success code and a **handle** to a Message object.

The client then sets the properties on the sharing response by using the **RopSetProperties** ROP ([MS-OXCROPS] section 2.2.8.6), as shown in the following table.

Property	Property ID	Property type	Value
PidTagMessageClass ([MS-OXCMSG] section 2.2.1.3)	0x001A	**PtypString** ([MS-OXCDATA] section 2.11.1)	"IPM.Sharing"
PidNameContentClass (section 2.2.5.1)	0x806d	**PtypString**	"Sharing"
PidTagNormalizedSubject ([MS-OXCMSG] section 2.2.1.10)	0x0E1D	**PtypString**	"Denied: sharing request: calendar"
PidTagSubjectPrefix ([MS-OXCMSG] section 2.2.1.9)	0x003D	**PtypString**	"" (a zero-length string)
PidLidSharingProviderGuid (section 2.2.2.12)	0x8243	**PtypBinary** ([MS-OXCDATA] section 2.11.1)	*
PidNameXSharingProviderGuid (section 2.2.2.13)	0x836F	**PtypString**	"AEF0060000000000C000000000000046"
PidLidSharingProviderName (section 2.2.2.14)	0x8244	**PtypString**	"Microsoft Exchange"
PidNameXSharingProviderName (section 2.2.2.15)	0x8370	**PtypString**	"Microsoft Exchange"
PidLidSharingProviderUrl (section 2.2.2.16)	0x8245	**PtypString**	"HTTP://www.microsoft.com/exchange"

Property	Property ID	Property type	Value
PidNameXSharingProviderUrl (section 2.2.2.17)	0x8371	**PtypString**	"HTTP://www.microsoft.com/exchange"
PidLidSharingConfigurationUrl (section 2.2.2.3)	0x83D0	**PtypString**	"" (a zero-length string)
PidNameXSharingConfigUrl (section 2.2.2.4)	0x8377	**PtypString**	"" (a zero-length string)
PidLidSharingFlavor (section 2.2.2.5)	0x823D	**PtypInteger32** ([MS-OXCDATA] section 2.11.1)	0x00025100
PidNameXSharingFlavor (section 2.2.2.6)	0x836D	**PtypString**	"25100"
PidLidSharingCapabilities (section 2.2.2.1)	0x823C	**PtypInteger32**	0x00040290
PidNameXSharingCapabilities (section 2.2.2.2)	0x836C	**PtypString**	"40290"
PidLidSharingLocalType (section 2.2.2.10)	0x824F	**PtypString**	"IPF.Appointment"
PidNameXSharingLocalType (section 2.2.2.11)	0x8379	**PtypString**	"IPF.Appointment"
PidLidSharingInitiatorEntryId (section 2.2.2.7)	0x8249	**PtypBinary**	**
PidLidSharingInitiatorName (section 2.2.2.8)	0x8029	**PtypString**	"user12"
PidLidSharingInitiatorSmtp (section 2.2.2.9)	0x8248	**PtypString**	"user12@fabrikam.com"

* The following data shows the value of the **PidLidSharingProviderGuid** property. The size of the value is 16 bytes.

```
0000: AE F0 06 00 00 00 00 00 C0 00 00 00 00 00 00 46 ...............F
```

** The following data shows the value of the **PidLidSharingInitiatorEntryId** property. The size of the value is 125 bytes.

```
0000: 00 00 00 00 DC A7 40 C8 C0 42 10 1A B4 B9 08 00 ......@..B......
0010: 2B 2F E1 82 01 00 00 00 00 00 00 00 2F 6F 3D 46 +/........../o=F
0020: 69 72 73 74 20 4F 72 67 61 6E 69 7A 61 74 69 6F irst Organizatio
0030: 6E 2F 6F 75 3D 45 78 63 68 61 6E 67 65 20 41 64 n/ou=Exchange Ad
0040: 6D 69 6E 69 73 74 72 61 74 69 76 65 20 47 72 6F ministrative Gro
0050: 75 70 20 28 46 59 44 49 42 4F 48 46 32 33 53 50 up (FYDIBOHF23SP
0060: 44 4C 54 29 2F 63 6E 3D 52 65 63 69 70 69 65 6E DLT)/cn=Recipien
0070: 74 73 2F 63 6E 3D 75 73 65 72 31 32 00          ts/cn=user12.
```

After addressing the message as described in [MS-OXOMSG], the client sends the message to Kendall by using the **RopSubmitMessage** ROP ([MS-OXCROPS] section 2.2.7.1) and then releases the Message object by using the **RopRelease** ROP ([MS-OXCROPS] section 2.2.15.3).

Then, the client opens the sharing request by using the **RopOpenMessage** ROP ([MS-OXCROPS] section 2.2.6.1). The server returns a success code and a handle to the Message object.

The client sets properties on the sharing request to indicate that the client has sent a sharing response denying the request and to specify the time at which the response was sent, as shown in the following table. The client sets these properties by using the **RopSetProperties** ROP ([MS-OXCROPS] section 2.2.8.6).

Property	Property ID	Property type	Data	Value
PidLidSharingResponseType (section 2.2.4.2)	0x83E4	**PtypInteger32** ([MS-OXCDATA] section 2.11.1)	02 00 00 00	0x00000002
PidLidSharingResponseTime (section 2.2.4.1)	0x83E3	**PtypTime** ([MS-OXCDATA] section 2.11.1)	00 9A C2 CF E3 7F C8 01	2008/03/06 23:43:00.000

The client saves the changes by using the **RopSaveChangesMessage** ROP ([MS-OXCROPS] section 2.2.6.3) and releases the Message object by using the **RopRelease** ROP.

4.3 Accepting a Sharing Request

Ryan wants to send a **sharing response** accepting the **sharing request** that is described in section 4.1. The client creates a new **Message object** by using the **RopCreateMessage ROP** ([MS-OXCROPS] section 2.2.6.2). The server returns a success code and a **handle** to a Message object.

The client sets the properties on a sharing response by using the **RopSetProperties** ROP ([MS-OXCROPS] section 2.2.8.6), as shown in the following table.

Property	Property ID	Property type	Value
PidTagMessageClass ([MS-OXCMSG] section 2.2.1.3)	0x001A	**PtypString** ([MS-OXCDATA] section 2.11.1)	"IPM.Sharing"
PidNameContentClass (section 2.2.5.1)	0x806d	**PtypString**	"Sharing"
PidTagNormalizedSubject ([MS-OXCMSG] section 2.2.1.10)	0x0E1D	**PtypString**	"Allowed: sharing request: calendar"
PidTagSubjectPrefix ([MS-OXCMSG] section 2.2.1.9)	0x003D	**PtypString**	"" (a zero-length string)
PidLidSharingProviderGuid (section 2.2.2.12)	0x8243	**PtypBinary**	*
PidNameXSharingProviderGuid (section 2.2.2.13)	0x836F	**PtypString**	"AEF0060000000000C0000000 00000046"
PidLidSharingProviderName (section 2.2.2.14)	0x8244	**PtypString**	"Microsoft Exchange"
PidNameXSharingProviderName (section 2.2.2.15)	0x8370	**PtypString**	"Microsoft Exchange"
PidLidSharingProviderUrl (section	0x8245	**PtypString**	"HTTP://www.microsoft.com/exchan

Property	Property ID	Property type	Value
2.2.2.16)			ge"
PidNameXSharingProviderUrl (section 2.2.2.17)	0x8371	**PtypString**	"HTTP://www.microsoft.com/exchange"
PidLidSharingConfigurationUrl (section 2.2.2.3)	0x83D0	**PtypString**	"" (a zero-length string)
PidNameXSharingConfigUrl (section 2.2.2.4)	0x8377	**PtypString**	"" (a zero-length string)
PidLidSharingFlavor (section 2.2.2.5)	0x823D	**PtypInteger32** ([MS-OXCDATA] section 2.11.1)	0x00023310
PidNameXSharingFlavor (section 2.2.2.6)	0x836D	**PtypString**	"23310"
PidLidSharingCapabilities (section 2.2.2.1)	0x823C	**PtypInteger32**	0x00040290
PidNameXSharingCapabilities (section 2.2.2.2)	0x836C	**PtypString**	"40290"
PidLidSharingLocalType (section 2.2.2.10)	0x824F	**PtypString**	"IPF.Appointment"
PidNameXSharingLocalType (section 2.2.2.11)	0x8379	**PtypString**	"IPF.Appointment"
PidLidSharingInitiatorEntryId (section 2.2.2.7)	0x8249	**PtypBinary** ([MS-OXCDATA] section 2.11.1)	**
PidLidSharingInitiatorName (section 2.2.2.8)	0x8029	**PtypString**	"user10"
PidLidSharingInitiatorSmtp (section 2.2.2.9)	0x8248	**PtypString**	"user10@fabrikam.com"
PidLidSharingRemoteName (section 2.2.3.1)	0x8026	**PtypString**	"Calendar"
PidNameXSharingRemoteName (section 2.2.3.2)	0x8373	**PtypString**	"Calendar"
PidLidSharingRemoteType (section 2.2.3.5)	0x8247	**PtypString**	"IPF.Appointment"
PidNameXSharingRemoteType (section 2.2.3.6)	0x8376	**PtypString**	"IPF.Appointment"
PidLidSharingRemoteUid (section 2.2.3.7)	0x8246	**PtypString**	"00000000B0FCA4F63C21A642BD4B8F1BDBA04BC60100612A7BAB49F64E4B9C52DBFB5A53AA1C000000F04EEF0000"

Property	Property ID	Property type	Value
PidNameXSharingRemoteUid (section 2.2.3.8)	0x8374	**PtypString**	"00000000B0FCA4F63C21A642B D4B8F1BDBA04BC60100612A7 BAB49F64E4B9C52DBFB5A53A A1C000000F04EEF0000"
PidLidSharingRemoteStoreUid (section 2.2.3.3)	0x83E1	**PtypString**	"0000000038A1BB1005E5101A A1BB08002B2A56C20000454D 534D44422E444C4C000000000 00000001B55FA20AA6611CD9 BC800AA002FC45A0C00000033 36353952392D413131002F6F3 D4669727374204F7267616E69 7A6174696F6E2F6F753D45786 368616E67652041646D696E69 737472617469766520477267F7 570202846594449424F484632 335350444C54292F636E3D526 563697069656E74732F636E3D 75736572313000"
PidNameXSharingRemoteStoreUid (section 2.2.3.4)	0x8375	**PtypString**	"0000000038A1BB1005E5101AA 1BB08002B2A56C20000454D5 34D44422E444C4C0000000000 0000001B55FA20AA6611CD9B C800AA002FC45A0C000000333 6353952392D413131002F6F3D 4669727374204F7267616E697 A6174696F6E2F6F753D457863 68616E67652041646D696E697 374726174697652047267F75 702028465944494 24F4846323 35350444C54292F636E3D5265 63697069656E74732F636E3D7 5736572313000"

* The following data shows the value of the **PidLidSharingProviderGuid** property. The size of the value is 16 bytes.

```
0000: AE F0 06 00 00 00 00 00 C0 00 00 00 00 00 00 46 ...............F
```

** The following data shows the value of the **PidLidSharingInitiatorEntryId** property. The size of the value is 125 bytes.

```
0000: 00 00 00 00 DC A7 40 C8 C0 42 10 1A B4 B9 08 00 ......@..B......
0010: 2B 2F E1 82 01 00 00 00 00 00 00 00 2F 6F 3D 46 +/........../o=F
0020: 69 72 73 74 20 4F 72 67 61 6E 69 7A 61 74 69 6F irst Organizatio
0030: 6E 2F 6F 75 3D 45 78 63 68 61 6E 67 65 20 41 64 n/ou=Exchange Ad
0040: 6D 69 6E 69 73 74 72 61 74 69 76 65 20 47 72 6F ministrative Gro
0050: 75 70 20 28 46 59 44 49 42 4F 48 46 32 33 53 50 up (FYDIBOHF23SP
0060: 44 4C 54 29 2F 63 6E 3D 52 65 63 69 70 69 65 6E DLT)/cn=Recipien
0070: 74 73 2F 63 6E 3D 75 73 65 72 31 30 00          ts/cn=user10.
```

After properly addressing the message as described in [MS-OXOMSG], the client sends the message to Kendall by using the **RopSubmitMessage** ROP ([MS-OXCROPS] section 2.2.7.1) and then releases the Message object by using the **RopRelease ROP** ([MS-OXCROPS] section 2.2.15.3).

The client then grants Kendall permission to the folder as described in [MS-OXODLGT].

Then the client opens the sharing request by using the **RopOpenMessage** ROP ([MS-OXCROPS] section 2.2.6.1). The server returns a success code and a handle to the Message object.

The client sets the properties on the sharing request to indicate that the client has sent a sharing response accepting the request and to specify the time at which the response was sent, as shown in the following table. The client sets these properties by using the **RopSetProperties** ROP ([MS-OXCROPS] section 2.2.8.6).

Property	Property ID	Property type	Data	Value
PidLidSharingResponseType (section 2.2.4.2)	0x83E4	**PtypInteger32** ([MS-OXCDATA] section 2.11.1)	01 00 00 00	0x00000001
PidLidSharingResponseTime (section 2.2.4.1)	0x83E3	**PtypTime** ([MS-OXCDATA] section 2.11.1)	00 9A C2 CF E3 7F C8 01	2008/03/06 23:43:00.000

The client saves the changes by using the **RopSaveChangesMessage** ROP ([MS-OXCROPS] section 2.2.6.3) and releases the Message object by using the **RopRelease** ROP.

5 Security

5.1 Security Considerations for Implementers

There are no security considerations specific to the Sharing Message Object Protocol. General security considerations pertaining to the underlying transport apply, as described in [MS-OXCMSG].

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 2007
- Microsoft Exchange Server 2010
- Microsoft Exchange Server 2013
- Microsoft Exchange Server 2016
- Microsoft Office Outlook 2007
- Microsoft Outlook 2010
- Microsoft Outlook 2013
- Microsoft Outlook 2016
- Microsoft Exchange Server 2019
- Microsoft Outlook 2019
- Microsoft Outlook 2021

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 2.2.2.8: Office Outlook 2007 sets the value of the **PidLidSharingInitiatorName** property (section 2.2.2.8) but, upon receipt, ignores the property and queries the **address book** for its value based on the **PidLidSharingInitiatorEntryId** property (section 2.2.2.7).

<2> Section 2.2.2.9: Office Outlook 2007 sets the value of the **PidLidSharingInitiatorSmtp** property (section 2.2.2.9) but, upon receipt, ignores the property and queries the address book for its value based on the **PidLidSharingInitiatorEntryId** property (section 2.2.2.7).

<3> Section 2.2.2.14: Office Outlook 2007 sets the value of the **PidLidSharingProviderName** property (section 2.2.2.14) but, upon receipt, ignores the property and instead uses a custom value based on the **PidLidSharingProviderGuid** property (section 2.2.2.12).

<4> Section 2.2.2.15: Office Outlook 2007 sets the value of the **PidNameXSharingProviderName** property (section 2.2.2.15) but, upon receipt, ignores the property and instead uses a custom value based on the **PidLidSharingProviderGuid** property (section 2.2.2.12).

<5> Section 2.2.2.16: Office Outlook 2007 sets the value of the **PidLidSharingProviderUrl** property (section 2.2.2.16) but, upon receipt, ignores the property and instead uses a custom value based on the **PidLidSharingProviderGuid** property (section 2.2.2.12).

<6> Section 2.2.2.17: Office Outlook 2007 sets the value of the **PidNameXSharingProviderUrl** property (section 2.2.2.17) but, upon receipt, ignores the property and instead uses a custom value based on the **PidLidSharingProviderGuid** property (section 2.2.2.12).

<7> Section 2.2.3: Office Outlook 2007 sets these properties regardless of the type of **Sharing Message object**.

<8> Section 2.2.3.5: Office Outlook 2007 sets the **PidLidSharingRemoteType** property to the same value as the **PidLidSharingLocalType** property (section 2.2.2.10) but, upon receipt, ignores the property and uses only the **PidLidSharingLocalType** property to determine behavior.

<9> Section 2.2.3.6: Office Outlook 2007 sets the **PidNameXSharingRemoteType** property to the same value as the **PidLidSharingLocalType** property (section 2.2.2.10) but, upon receipt, ignores the property and uses only the **PidLidSharingLocalType** property to determine behavior.

<10> Section 2.2.6: Office Outlook 2007 sets differing subsets of these properties in different scenarios, but their values have no meaning in the context of this protocol.

7 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
6 Appendix A: Product Behavior	Updated list of supported products.	major

8 Index