

# [MS-OXOSMMS]: Short Message Service (SMS) and Multimedia Messaging Service (MMS) Object Protocol

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## Revision Summary

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# 1 Introduction

The Short Message Service (SMS) and Multimedia Messaging Service (MMS) Object Protocol enables clients to create, modify, and delete **Short Message Service (SMS)** and **Multimedia Messaging Service (MMS)** messages.

This protocol extends the Message and Attachment Object Protocol, as described in [\[MS-OXCMMSG\]](#).

Sections 1.8, 2, and 3 of this specification are normative and can contain the terms MAY, SHOULD, MUST, MUST NOT, and SHOULD NOT as defined in [\[RFC2119\]](#). Sections 1.5 and 1.9 are also normative but do not contain those terms. All other sections and examples in this specification are informative.

## 1.1 Glossary

The following terms are defined in [\[MS-OXGLOS\]](#):

**Attachment object**  
**calendar**  
**Coordinated Universal Time (UTC)**  
**Drafts folder**  
**flags**  
**GUID**  
**handle**  
**Hypertext Markup Language (HTML)**  
**Inbox folder**  
**Mail User Agent (MUA)**  
**Message object**  
**message store**  
**Multimedia Messaging Service (MMS)**  
**named property**  
**plain text**  
**property ID**  
**reminder**  
**remote operation (ROP)**  
**ROP request**  
**ROP response**  
**rule**  
**Sent Items folder**  
**Short Message Service (SMS)**  
**SMS object**  
**special folder**  
**stream**  
**Unicode**

The following terms are specific to this document:

**Multimedia Messaging Service (MMS) object:** A **Message object** that represents a **Multimedia Messaging Service (MMS)** message in a message store.

**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

References to Microsoft Open Specification documents do not include a publishing year because links are to the latest version of the documents, which are updated frequently. References to other documents include a publishing year when one is available.

### 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](mailto:dochelp@microsoft.com). We will assist you in finding the relevant information.

[MS-OXCDATA] Microsoft Corporation, "[Data Structures](#)".

[MS-OXCMAIL] Microsoft Corporation, "[RFC 2822 and MIME to Email Object Conversion Algorithm](#)".

[MS-OXCMMSG] Microsoft Corporation, "[Message and Attachment Object Protocol](#)".

[MS-OXCPRPT] Microsoft Corporation, "[Property and Stream 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, <http://www.rfc-editor.org/rfc/rfc2119.txt>

### 1.2.2 Informative References

[MSDN-MobileServicePart1] Microsoft Corporation, "Office 2010 Mobile Service Guidelines (Part 1 of 3)", [http://msdn.microsoft.com/en-us/library/ff606754\(v=office.14\).aspx](http://msdn.microsoft.com/en-us/library/ff606754(v=office.14).aspx)

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

[MS-OXGLOS] Microsoft Corporation, "[Exchange Server Protocols Master Glossary](#)".

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

[SMIL2.1] Bulterman, D., Grassel, G., Jansen, J., Koivisto, A., Layaida, N., et al., Eds., "Synchronized Multimedia Integration Language (SMIL 2.1)", W3C Recommendation, December, 2005, <http://www.w3.org/TR/SMIL2/>

## 1.3 Overview

This protocol enables a client to create, modify, and delete SMS text messages and MMS multimedia messages in a **message store**. SMS text messages are characterized by a short unformatted text body. MMS messages are characterized by text and multimedia components.

This protocol extends the Message and Attachment Object Protocol, as described in [\[MS-OXCMMSG\]](#), in that it defines new properties unique to **SMS objects** and **MMS objects** and adds restrictions to the existing of the **Message object**.

A typical scenario for using this protocol is to create, modify, or delete SMS text messages or MMS multimedia messages.

## **1.4 Relationship to Other Protocols**

This protocol has the same dependencies as the Message and Attachment Object Protocol, which it extends. For more details about the Message and Attachment Object Protocol, see [\[MS-OXCMMSG\]](#).

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 has the same prerequisites and preconditions as the Message and Attachment Object Protocol, as specified in [\[MS-OXCMMSG\]](#).

## **1.6 Applicability Statement**

None.

## **1.7 Versioning and Capability Negotiation**

None.

## **1.8 Vendor-Extensible Fields**

This protocol provides no vendor-extensibility beyond what is already specified in [\[MS-OXCMMSG\]](#).

## **1.9 Standards Assignments**

None.

## 2 Messages

### 2.1 Transport

This protocol uses the protocols specified in [\[MS-OXCPRPT\]](#) and [\[MS-OXCMSG\]](#) as its primary transport mechanism.

### 2.2 Message Syntax

Clients operate on SMS objects and MMS objects using the Message and Attachment Object Protocol, as specified in [\[MS-OXCMSG\]](#).

Unless otherwise specified, SMS objects and MMS objects adhere to all property constraints specified in [\[MS-OXPROPS\]](#) and [\[MS-OXCMSG\]](#). SMS objects and MMS objects can also contain other properties, but these properties have no impact on this protocol.

#### 2.2.1 Common SMS and MMS Object Properties

##### 2.2.1.1 PidNameOMSAccountGuid Property

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

The **PidNameOMSAccountGuid** property ([\[MS-OXPROPS\]](#) section 2.454) specifies the **GUID** of the SMS account used to deliver the message. The GUID is encoded as a string in the following format (including the braces), where X is any hexadecimal digit: "{XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXX}"; for example, "{C200E360-38C5-11CE-AE62-08002B2B79EF}".

##### 2.2.1.2 PidNameOMSScheduleTime Property

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

The **PidNameOMSScheduleTime** property ([\[MS-OXPROPS\]](#) section 2.456) specifies the time, in **Coordinated Universal Time (UTC)**, that the client sends the requests instructing the service provider to send the SMS or MMS message.

##### 2.2.1.3 PidNameOMSServiceType Property

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

The **PidNameOMSServiceType** property ([\[MS-OXPROPS\]](#) section 2.457) indicates the type of service used to send the SMS or MMS message. The value of this property MUST be one of the values in the following table.

Value	Meaning
0x00000001	SMS
0x00000004	MMS

##### 2.2.1.4 PidNameOMSSourceType Property

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

The **PidNameOMSSourceType** property ([\[MS-OXPROPS\]](#) section 2.458) indicates the source of the SMS or MMS message. The value of this property MUST be one of the values in the following table.

Value	Source type
0x00000000	XMS inspector (as described in <a href="#">[MSDN-MobileServicePart1]</a> )
0x00000001	<b>Reminder</b>
0x00000002	<b>Calendar</b> summary
0x00000003	<b>Rule</b> (1)
0x00000004	Unknown

## 2.2.1.5 PidNameContentClass Property

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

The **PidNameContentClass** property ([\[MS-OXCMSG\]](#) section 2.2.1.48) MUST be set to one of the values in the following table.

Value	Meaning
MS-OMS-SMS	SMS
MS-OMS-MMS	MMS

## 2.2.1.6 PidNameOMSMobileModel Property

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

The **PidNameOMSMobileModel** property ([\[MS-OXPROPS\]](#) section 2.455) indicates the model of the mobile device used to send the SMS or MMS message.

## 2.2.2 Additional Property Constraints

This protocol makes additional constraints on the properties specified in section [2.2.2.1](#) through section [2.2.2.4](#) beyond what is specified in [\[MS-OXCMSG\]](#) and [\[MS-OXOMSG\]](#).

### 2.2.2.1 PidTagIconIndex Property

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

The **PidTagIconIndex** property ([\[MS-OXOMSG\]](#) section 2.2.1.10) specifies which icon is to be used by a user interface when displaying a group of SMS objects and/or MMS objects. This property SHOULD [<1>](#) be set; if set, the value MUST be 0xFFFFFFFF.

### 2.2.2.2 PidTagMessageClass Property

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

The **PidTagMessageClass** property ([\[MS-OXCMSG\]](#) section 2.2.1.3) specifies the type of the Message object. In addition to meeting the criteria specified in [MS-OXCMSG], for SMS objects this value MUST either be set to "IPM.Note.Mobile.SMS" or begin with "IPM.Note.Mobile.SMS". For MMS

objects, this property MUST either be set to "IPM.Note.Mobile.MMS" or begin with "IPM.Note.Mobile.MMS".

### 2.2.2.3 Body Properties

The contents of SMS objects are stored and retrieved following the details specified for **plain text** messages in [\[MS-OXCMAIL\]](#) section 2.1.3.3.1.<2>

The contents of MMS objects are stored and retrieved following the details specified for **HTML** messages, as specified in [\[MS-OXCMAIL\]](#) section 2.1.3.3.1.<3>

### 2.2.2.4 PidTagNormalizedSubject Property

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

The **PidTagNormalizedSubject** property ([\[MS-OXCMSG\]](#) section 2.2.1.10) contains an abbreviated version of the contents of the message suitable for displaying groups of SMS objects to a user. For MMS objects, only the constraints specified in [\[MS-OXCMSG\]](#) section 2.2.1.10 apply.

## 3 Protocol Details

### 3.1 Client Details

The client role creates and sets properties on SMS objects and MMS objects.

#### 3.1.1 Abstract Data Model

None.

#### 3.1.2 Timers

None.

#### 3.1.3 Initialization

None.

#### 3.1.4 Higher-Layer Triggered Events

##### 3.1.4.1 Creation of an SMS or MMS Object

To create an SMS object or MMS object, the client sets properties in accordance with the requirements in section [2](#) and [\[MS-OXCPRPT\]](#) and then saves the resulting Message object as specified in [\[MS-OXCMSG\]](#).

##### 3.1.4.2 Modification of an SMS or MMS Object

When modifying an SMS object or MMS object, the client modifies any of the properties in accordance with the requirements in section [2](#) and [\[MS-OXCPRPT\]](#) and then saves the Message object as specified in [\[MS-OXCMSG\]](#).

##### 3.1.4.3 Deletion of an SMS or MMS Object

An SMS object or MMS object has no special deletion semantics beyond what is 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 an SMS object and MMS 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.

This protocol uses the abstract data model that is specified in [\[MS-OXCMMSG\]](#) section 3.1.1 with the following adaptations:

- The SMS object and MMS object are extensions of the Message object.
- An SMS object and MMS object are created in the **Drafts folder**, the **Inbox folder**, or the **Sent Items folder**, which are **special folders**, unless the **MUA** explicitly specifies another folder. For details about special folders, see [\[MS-OXOSFLD\]](#).

### **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 [\[MS-OXCMMSG\]](#) section 3.2.5.

### **3.2.6 Timer Events**

None.

### **3.2.7 Other Local Events**

None.

## 4 Protocol Examples

### 4.1 Sample SMS Object

A user creates an SMS text message, types in some text, and sends it. The following is a description of what a client might do to accomplish the user's intentions and the responses a server might return. For more details about **remote operations (ROPs)**, see [\[MS-OXCPRPT\]](#) and [\[MS-OXCMSG\]](#).

Before manipulating SMS objects, the client asks the server to map the **named properties** to **property IDs** by sending a **RopGetPropertyIDsFromNames ROP request** ([\[MS-OXCROPS\]](#) section 2.2.8.1).

Property	Property set GUID	NameID
<b>PidNameOMSMobileModel</b> (section <a href="#">2.2.1.6</a> )	{00020329-0000-0000-C000-00000000046}	OMSMobileModel
<b>PidNameOMSAccountGuid</b> (section <a href="#">2.2.1.1</a> )	{00020329-0000-0000-C000-00000000046}	OMSAccountGuid
<b>PidNameOMSServiceType</b> (section <a href="#">2.2.1.3</a> )	{00020329-0000-0000-C000-00000000046}	OMSServiceType
<b>PidNameOMSSourceType</b> (section <a href="#">2.2.1.4</a> )	{00020329-0000-0000-C000-00000000046}	OMSSourceType

The server might send a **RopGetPropertyIDsFromNames ROP response** with the following property IDs, which are used in the example that follows. (The actual property IDs are at the discretion of the server.)

Property	Property ID
<b>PidNameOMSMobileModel</b>	0x84C3
<b>PidNameOMSAccountGuid</b>	0x84C4
<b>PidNameOMSServiceType</b>	0x84C5
<b>PidNameOMSSourceType</b>	0x84C6

To create an SMS object, the client uses the **RopCreateMessage** ROP ([\[MS-OXCROPS\]](#) section 2.2.6.2). The server returns a success code and a **handle** to a Message object.

After the user inputs the content for the SMS object, the client transmits the data to the server by using the **RopSetProperties** ROP ([\[MS-OXCROPS\]](#) section 2.2.8.6).

Property	Property ID	Data type	Value
<b>PidNameOMSAccountGuid</b>	0x84C4	<b>PtypString</b> ( <a href="#">[MS-OXCDATA]</a> section 2.11.1)	{01234567-0123-0123-0123-0123456789AB}
<b>PidNameOMSMobileModel</b>	0x84C3	<b>PtypString</b>	(null)

Property	Property ID	Data type	Value
<b>PidNameOMSServiceType</b>	0x84C5	<b>PtypInteger32</b> ( <a href="#">[MS-OXCDATA]</a> section 2.11.1)	0x00000001
<b>PidNameOMSSourceType</b>	0x84C6	<b>PtypInteger32</b>	0x00000000
<b>PidTagBody</b> ( <a href="#">[MS-OXCMMSG]</a> section 2.2.1.56.1)	0x1000	<b>PtypString</b>	What time is the meeting?
<b>PidTagInternetCodepage</b> ( <a href="#">[MS-OXCMMSG]</a> section 2.2.1.56.6)	0x3FDE	<b>PtypInteger32</b>	0x0000FDE9
<b>PidTagMessageClass</b> (section <a href="#">2.2.2.2</a> )	0x001A	<b>PtypString</b>	IPM.Note.Mobile.SMS
<b>PidTagNormalizedSubject</b> (section <a href="#">2.2.2.4</a> )	0x0E1D	<b>PtypString</b>	What time is the meeting?
<b>PidTagSubjectPrefix</b> ( <a href="#">[MS-OXCMMSG]</a> section 2.2.1.9)	0x003D	<b>PtypString</b>	(null)

When the user sends the message, the client commits the properties on the server by using the **RopSaveChangesMessage** ROP ([\[MS-OXCROPS\]](#) section 2.2.6.3) and then releases the SMS object by using the **RopRelease** ROP ([\[MS-OXCROPS\]](#) section 2.2.15.3). The client then submits the message to an SMS provider by using the **RopSubmitMessage** ROP ([\[MS-OXCROPS\]](#) section 2.2.7.1).

The values of some properties change during the processing of the **RopSaveChangesMessage** ROP, but the properties defined in this specification do not change.

## 4.2 Sample MMS Object

A user creates an MMS message, gives it a subject, types some text, attaches a picture, and sends it. The following is a description of what a client might do to accomplish the user's intentions and the responses a server might return. For more details about ROPs, see [\[MS-OXCPRPT\]](#) and [\[MS-OXCMMSG\]](#).

Before manipulating an MMS object, the client asks the server to map the named properties to property IDs by sending a **RopGetPropertyIDsFromNames** ROP request ([\[MS-OXCROPS\]](#) section 2.2.8.1).

Property	Property set GUID	NameID
<b>PidNameOMSMobileModel</b> (section <a href="#">2.2.1.6</a> )	{00020329-0000-0000-C00000000046}	OMSMobileModel
<b>PidNameOMSAccountGuid</b> (section <a href="#">2.2.1.1</a> )	{00020329-0000-0000-C00000000046}	OMSAccountGuid
<b>PidNameOMSServiceType</b> (section <a href="#">2.2.1.3</a> )	{00020329-0000-0000-C00000000046}	OMSServiceType
<b>PidNameOMSSourceType</b> (section <a href="#">2.2.1.4</a> )	{00020329-0000-0000-C00000000046}	OMSSourceType

The server might send a **RopGetPropertyIDsFromNames** ROP response with the following property IDs, which are used in the example that follows. (The actual property IDs are at the discretion of the server.)

Property	Property ID
<b>PidNameOMSMobileModel</b>	0x84CE
<b>PidNameOMSAccountGuid</b>	0x84CF
<b>PidNameOMSServiceType</b>	0x84D0
<b>PidNameOMSSourceType</b>	0x84D1

To create an MMS object, the client uses the **RopCreateMessage** ROP ([MS-OXCROPS] section 2.2.6.2). The server returns a success code and a handle to an object.

After the user inputs the content for the MMS object, the client transmits the data to the server by using the **RopSetProperties** ROP ([MS-OXCROPS] section 2.2.8.6).

Property	Property ID	Data type	Value
<b>PidNameOMSAccountGuid</b>	0x84CF	<b>PtypString</b> ([MS-OXCDATA] section 2.11.1)	{01234567-0123-0123-0123-0123456789AB}
<b>PidNameOMSMobileModel</b>	0x84CE	<b>PtypString</b>	(empty)
<b>PidNameOMSServiceType</b>	0x84D0	<b>PtypInteger32</b> ([MS-OXCDATA] section 2.11.1)	0x00000004
<b>PidNameOMSSourceType</b>	0x84D1	<b>PtypInteger32</b>	0x00000000
<b>PidTagInternetCodepage</b> ([MS-OXCMSG] section 2.2.1.56.6)	0x3FDE	<b>PtypInteger32</b>	0x0000FDE9
<b>PidTagHtml</b> ([MS-OXCMSG] section 2.2.1.56.9)	0x1013	<b>PtypBinary</b> ([MS-OXCDATA] section 2.11.1)	(The content of this property is given following the table.)
<b>PidTagIconIndex</b> (section 2.2.2.1)	0x1080	<b>PtypInteger32</b>	0xFFFFFFFF
<b>PidTagMessageClass</b> ([MS-OXCMSG] section 2.2.1.3)	0x001A	<b>PtypString</b>	IPM.Note.Mobile.MMS
<b>PidTagMessageFlags</b> ([MS-OXCMSG] section 2.2.1.6)	0x0E07	<b>PtypInteger32</b>	<b>Flags:</b> 0x00000018 MSGFLAG_UNSENT MSGFLAG_HASATTACH
<b>PidTagNormalizedSubject</b> ([MS-OXCMSG] section 2.2.1.10)	0x0E1d	<b>PtypString</b>	Here's the photo.
<b>PidTagSubjectPrefix</b> ([MS-OXCMSG] section 2.2.1.9)	0x003d	<b>PtypString</b>	(empty)

The **PidTagHtml** property is a binary property containing the following text.

```

<HTML>
<BODY>
<IMG SRC="cid:Att1.jpg@AB1B43B2B0594564.B94EF7ABB12B49BA" border="0">
<BR>
This is the photo you asked for.
<BR>
<A HREF="cid:Att0.txt@AB1B43B2B0594564.B94EF7ABB12B49BA"></A>
</BODY>
</HTML>

```

The client allocates space for a data file in the message by using the **RopCreateAttachment** ROP ([\[MS-OXCROPS\]](#) section 2.2.6.13). In response, the server returns a success code and a handle to an **Attachment object**. The client uses this handle with the **RopSetProperties** ROP ([\[MS-OXCROPS\]](#) section 2.2.8.6) to transmit data about the attachment to the server.

Property	Property ID	Data type	Value
<b>PidTagAttachmentHidden</b> ( <a href="#">[MS-OXCMMSG]</a> section 2.2.2.24)	0x7FFE	<b>PtypBoolean</b> ( <a href="#">[MS-OXCDATA]</a> section 2.11.1)	0x01
<b>PidTagAttachMethod</b> ( <a href="#">[MS-OXCMMSG]</a> section 2.2.2.9)	0x3705	<b>PtypInteger32</b>	0x00000001 (ATTACH_BY_VALUE)
<b>PidTagAttachContentId</b> ( <a href="#">[MS-OXCMMSG]</a> section 2.2.2.26)	0x3712	<b>PtypString</b>	MMS.smil@AB1B43B2B0594564.B94EF7ABB12B49BA
<b>PidTagAttachMimeType</b> ( <a href="#">[MS-OXCMMSG]</a> section 2.2.2.26)	0x370E	<b>PtypString</b>	application/smil
<b>PidTagAttachLongFileName</b> ( <a href="#">[MS-OXCMMSG]</a> section 2.2.2.10)	0x3707	<b>PtypString</b>	MMS.smil

The client sets the contents of the attachment by using the attachment handle with the **RopOpenStream** ROP ([\[MS-OXCROPS\]](#) section 2.2.9.1), passing in the **PidTagAttachDataBinary** property ([\[MS-OXPROPS\]](#) section 2.580) as the property to open. With the handle returned from the **RopOpenStream** ROP, the client calls the **RopWriteStream** ROP ([\[MS-OXCROPS\]](#) section 2.2.9.3), writing out the contents of the Synchronized Multimedia Integration Language (SMIL) file, the format of which is described in [\[SMIL2.1\]](#), describing the layout of the MMS message. The client follows this with the **RopRelease** ROP ([\[MS-OXCROPS\]](#) section 2.2.15.3) on the **stream** (2) handle, then commits the changes by using the **RopSaveChangesAttachment** ROP ([\[MS-OXCROPS\]](#) section 2.2.6.15), releases the handle to the attachment by using the **RopRelease** ROP.

The client repeats the process from the **RopCreateAttachment** ROP ([\[MS-OXCROPS\]](#) section 2.2.6.13) for the **RopRelease** ROP with the attachment handle twice more, once for a plain-text version of the body, and once for the image. The attachment containing the body uses the following properties and values with the **RopSetProperties** ROP.

Property	Property ID	Data type	Value
PidTagAttachmentHidden	0x7FFE	PtypBoolean	0x01
PidTagAttachMethod	0x3705	PtypInteger32	0x00000001 (ATTACH_BY_VALUE)
PidTagAttachContentId	0x3712	PtypString	Att0.txt@AB1B43B2B0594564.B94EF7ABB12B49BA
PidTagAttachMimeType	0x370E	PtypString	text/plain
PidTagAttachLongFileName	0x3707	PtypString	1.txt

The **RopOpenStream** ROP for the plain-text body is also on the **PidTagAttachDataBinary** property, but the contents written are **Unicode** text. The last attachment the client creates contains the image, and the **RopSetProperties** ROP sends the following data.

Property	Property ID	Data type	Value
PidTagAttachmentHidden	0x7FFE	PtypBoolean	0x01
PidTagAttachMethod	0x3705	PtypInteger32	0x00000001 (ATTACH_BY_VALUE)
PidTagAttachContentId	0x3712	PtypString	Att1.jpg@AB1B43B2B0594564.B94EF7ABB12B49BA
PidTagAttachMimeType	0x370E	PtypString	image/jpeg
PidTagAttachLongFileName	0x3707	PtypString	photo.jpg

The contents of the **PidTagAttachDataBinary** property on the image attachment are the binary contents of the image file.

When the user sends the message, the client commits the properties on the server by using the **RopSaveChangesMessage** ROP ([\[MS-OXCROPS\]](#) section 2.2.6.3) and then releases the MMS object by using the **RopRelease** ROP. The client then submits the message to an MMS provider by using the **RopSubmitMessage** ROP ([\[MS-OXCROPS\]](#) section 2.2.7.1).

The values of some properties change during the processing of the **RopSaveChangesMessage** ROP, but the properties specified in this protocol do not change.

## **5 Security**

### **5.1 Security Considerations for Implementers**

There are no special security considerations specific to the SMS and MMS Object Protocol. General security considerations pertaining to the underlying transport apply, as specified in [\[MS-OXCMSG\]](#) and [\[MS-OXCPRPT\]](#).

### **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 released service packs:

- Microsoft Exchange Server 2003
- Microsoft Exchange Server 2007
- Microsoft Exchange Server 2010
- Microsoft Exchange Server 2013
- Microsoft Office Outlook 2003
- Microsoft Office Outlook 2007
- Microsoft Outlook 2010
- Microsoft Outlook 2013

Exceptions, if any, are noted below. If a service pack or Quick Fix Engineering (QFE) number appears with the product version, behavior changed in that service pack or QFE. The new behavior also applies to subsequent service packs of the product 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 2.2.2.1:](#) Office Outlook 2007 does not set the **PidTagIconIndex** property on SMS objects or MMS objects.

[<2> Section 2.2.2.3:](#) Office Outlook 2007 SP1 sets both the **PidTagBody** property ([\[MS-OXCMMSG\]](#) section 2.2.1.56.1) and the **PidTagHtml** property ([\[MS-OXCMMSG\]](#) section 2.2.1.56.9) on SMS objects.

[<3> Section 2.2.2.3:](#) Office Outlook 2007 SP1 sets both the **PidTagBody** property ([\[MS-OXCMMSG\]](#) section 2.2.1.56.1) and the **PidTagHtml** property ([\[MS-OXCMMSG\]](#) section 2.2.1.56.9) on MMS objects.

## 7 Change Tracking

This section identifies changes that were made to the [MS-OXOSMMS] protocol document between the July 2014 and October 2014 releases. Changes are classified as New, Major, Minor, Editorial, or No change.

The revision class **New** means that a new document is being released.

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 or functionality.
- The removal of a document from the documentation set.

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 **Editorial** means that the formatting in the technical content was changed. Editorial changes apply to grammatical, formatting, and style issues.

The revision class **No change** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the technical content of the document is identical to the last released version.

Major and minor changes can be described further using the following change types:

- New content added.
- Content updated.
- Content removed.
- New product behavior note added.
- Product behavior note updated.
- Product behavior note removed.
- New protocol syntax added.
- Protocol syntax updated.
- Protocol syntax removed.
- New content added due to protocol revision.
- Content updated due to protocol revision.
- Content removed due to protocol revision.
- New protocol syntax added due to protocol revision.
- Protocol syntax updated due to protocol revision.
- Protocol syntax removed due to protocol revision.

- Obsolete document removed.

Editorial changes are always classified with the change type **Editorially updated**.

Some important terms used in the change type descriptions are defined as follows:

- **Protocol syntax** refers to data elements (such as packets, structures, enumerations, and methods) as well as interfaces.
- **Protocol revision** refers to changes made to a protocol that affect the bits that are sent over the wire.

The changes made to this document are listed in the following table. For more information, please contact [dochelp@microsoft.com](mailto:dochelp@microsoft.com).

<b>Section</b>	<b>Tracking number (if applicable) and description</b>	<b>Major change (Y or N)</b>	<b>Change type</b>
<a href="#">2.2.1.1 PidNameOMSAccountGuid Property</a>	Clarified the format of the string.	N	Content updated.
<a href="#">2.2.1.4 PidNameOMSSourceType Property</a>	Added a reference for the XMS inspector source type.	N	Content updated.
<a href="#">2.2.2.1 PidTagIconIndex Property</a>	Updated reference link.	N	Product behavior note updated.
<a href="#">3.2 Server Details</a>	Added new section Server Details and subsections.	Y	New content added.
<a href="#">4.1 Sample SMS Object</a>	Updated reference link to PidTagMessageClass and PidTagNormalizedSubject.	N	Content updated.
<a href="#">4.2 Sample MMS Object</a>	Updated reference link to PidTagIconIndex.	N	Content updated.

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