[MS-OXORSS]:

RSS Object Protocol

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Revision Summary

Date	Revision History	Revision Class	Comments
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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.
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7/15/2009	3.0	Major	Revised and edited for technical content.
11/4/2009	4.0	Major	Updated and revised the technical content.
2/10/2010	4.1	Minor	Updated the technical content.
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1 Introduction

The RSS Object Protocol enables representation of an item that is from a news feed. 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:

atom feed: An **XML** structure that contains metadata about content, such as the language version and the date when the content was last modified, and is sent to subscribers by using the Atom Publishing Protocol (AtomPub), as described in [RFC4287].

Attachment object: A set of properties that represents a file, **Message object**, or structured storage that is attached to a Message object and is visible through the attachments table for a Message object.

Coordinated Universal Time (UTC): A high-precision atomic time standard that approximately tracks Universal Time (UT). It is the basis for legal, civil time all over the Earth. Time zones around the world are expressed as positive and negative offsets from UTC. In this role, it is also referred to as Zulu time (Z) and Greenwich Mean Time (GMT). In these specifications, all references to UTC refer to the time at UTC-0 (or GMT).

enclosure: An **XML element** that is in a feed and contains information such as a **URL** for a file, typically a media file, that is associated with an **RSS** item or Atom entry, for example, a podcast.

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.

Mail User Agent (MUA): A client application that is used to compose and read email messages.

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.

property ID: A 16-bit numeric identifier of a specific attribute (1). A property ID does not include any property type information.

Really Simple Syndication (RSS): An XML-based syndication format for content, as described in [RSS2.0].

recipient: An entity that can receive email messages.

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.

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ROP request: See ROP request buffer.

ROP response: See ROP response buffer.

RSS item: An item element in an RSS feed, as described in [RSS2.0].

RSS object: A Message object that represents an entry from an **RSS item** or **atom feed**.

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].

XML: The Extensible Markup Language, as described in [XML1.0].

XML element: An **XML** structure that typically consists of a start tag, an end tag, and the information between those tags. Elements can have attributes (1) and can contain other elements.

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-OXCSPAM] Microsoft Corporation, "Spam Confidence Level Protocol".

[MS-OXOMSG] Microsoft Corporation, "Email Object 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

[RFC4287] Nottingham, M., and Sayre, R., Eds., "The Atom Syndication Format", RFC 4287, December 2005, http://www.ietf.org/rfc/rfc4287.txt

[RSS2.0] Winer, D., "RSS 2.0 Specification", Fall 2002, version 2.0.1: July 2003, http://cyber.law.harvard.edu/rss/rss.html

1.2.2 Informative References

[MS-OXBBODY] Microsoft Corporation, "Best Body Retrieval Algorithm".

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

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

1.3 Overview

The RSS Object Protocol allows representation of an item from either an **RSS** feed or an **atom feed** for viewing by the user. Items from the feed are in **XML** format. This protocol enables a client to convert the XML of an **RSS item**, described in [RSS2.0], or an atom entry, described in [RFC4287], to properties on an **RSS object**. In addition to the XML conversion, the entire XML content of the RSS item or atom entry is saved in its own property on the RSS object.

The RSS Object Protocol extends the Message and Attachment Object Protocol in that it defines new properties on a **Message object** and adds constraints to the existing properties of a Message object. For information about the Message and Attachment Object Protocol, see [MS-OXCMSG].

1.4 Relationship to Other Protocols

The RSS Object Protocol has the same dependencies as the Message and Attachment Object Protocol, as described in [MS-OXCMSG].

The RSS Object Protocol is a peer of the Email Object Protocol and uses a subset of the properties that are 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 RSS Object Protocol has the same prerequisites and preconditions as the Message and Attachment Object Protocol, as specified in [MS-OXCMSG].

1.6 Applicability Statement

A client can use this protocol to represent an item that is transmitted in a news feed format when the user subscribes to a news feed.

1.7 Versioning and Capability Negotiation

None.

1.8 Vendor-Extensible Fields

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

1.9 Standards Assignments

None.

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2 Messages

2.1 Transport

The RSS 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

An RSS 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 an RSS object by using the Message and Attachment Object Protocol, as specified in [MS-OXCMSG]. The manner in which a server operates on an RSS object is implementation-dependent, but the results of any such operations MUST be exposed to clients in a manner that is consistent with the RSS Object Protocol.

Unless otherwise specified in this section, an RSS object adheres to all property constraints, as specified in both [MS-OXPROPS] and [MS-OXCMSG]. An RSS object can also contain other properties, but these properties have no impact on the RSS Object Protocol.

The values of the properties specified in this section are taken from the **XML elements** of the RSS feed or atom feed, unless otherwise specified. For details about the XML formats of the RSS feed and the atom feed, see [RSS2.0] and [RFC4287], respectively.

2.2.1 RSS Object-Specific Properties

The properties that are specific to RSS objects are defined in section 2.2.1.1 through section 2.2.1.8.

2.2.1.1 PidLidPostRssChannelLink Property

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

The **PidLidPostRssChannelLink** property ([MS-OXPROPS] section 2.205) contains the **URL** of the RSS feed or atom feed from which the XML file came.

This property is set as follows:

- For an RSS feed, this property is set to the value of the **link** child element of the **channel** element.
- For an atom feed, this property is set to the value of the **href** attribute of the **link** child element of the **feed** element. This property is set only if the **rel** attribute of the **link** element either is set to "alternate" or is not present. Otherwise, this property is not set for an atom entry.

2.2.1.2 PidLidPostRssItemLink Property

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

The **PidLidPostRssItemLink** property ([MS-OXPROPS] section 2.208) contains the URL of the item or entry.

This property is set as follows:

- For an RSS item, this property is set to the value of the **link** child element of the **item** element.

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- For an atom entry, this property is set to the value of the **href** attribute of the **link** child element of the **entry** element. This property is set only if the **rel** attribute of the **link** element either is set to "alternate" or is not present. Otherwise, this property is not set for an atom entry.

2.2.1.3 PidLidPostRssItemHash Property

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

The **PidLidPostRssItemHash** property ([MS-OXPROPS] section 2.207) contains a hash of the XML from the RSS feed or the atom feed. The hash is computed by using an implementation-dependent algorithm and is used to quickly determine whether two items are different.

2.2.1.4 PidLidPostRssItemGuid Property

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

The **PidLidPostRssItemGuid** property ([MS-OXPROPS] section 2.206) contains a unique identifier for the object.

This property is set as follows:

- For an RSS item, this property is set to the value of the **GUID** element or the **link** element.
- For an atom entry, this property is set to the value of the **id** element. If the **id** element is not present, this property is set to the value of the **href** attribute of the **link** element.

2.2.1.5 PidLidPostRssChannel Property

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

The **PidLidPostRssChannel** property ([MS-OXPROPS] section 2.204) contains the title of the atom feed or the RSS feed. For an atom feed, this property is set to the value of the **title** child element of the **feed** element. For an RSS feed, this property is set to the value of the **title** child element of the **channel** element.

2.2.1.6 PidLidPostRssItemXml Property

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

The **PidLidPostRssItemXml** property ([MS-OXPROPS] section 2.209) contains either the contents of the **item** element and all of its child elements from an RSS feed or the contents of the **entry** element and all of its child elements from an atom feed.

2.2.1.7 PidLidPostRssSubscription Property

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

The **PidLidPostRssSubscription** property ([MS-OXPROPS] section 2.210) contains the user's preferred name for the subscription. This property either is set to a user-specified value or is set as follows:

- For an RSS feed, this property is set to the value of the **title** child element of the **channel** element.
- For an atom feed, this property is set to the value of the **title** child element of the **feed** element.

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2.2.1.8 PidTagMessageDeliveryTime Property

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

The **PidTagMessageDeliveryTime** property ([MS-OXPROPS] section 2.780) specifies the posting date, in **Coordinated Universal Time (UTC)**, of the item or entry. This property is optional.

This property is set as follows:

- For an RSS item, this property is set to the value of the **pubDate** element. If the **pubDate** element is not present in the RSS item, this property is set to the value of the **lastBuildDate** element.
- For an atom entry, this property is set to the value of the **updated** or **published** element. If none of these elements is present under the **entry** element, then the **updated** element that is under the **feed** element is used.
- This property can be set to the current time if none of the specified elements exist in the RSS item or the atom entry.

2.2.2 Additional Property Constraints

Additional constraints beyond those specified in [MS-OXCMSG], [MS-OXOMSG], and [MS-OXCSPAM] are specified in section 2.2.2.1 through section 2.2.2.6.

2.2.2.1 PidNameExchangeJunkEmailMoveStamp Property

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

The **PidNameExchangeJunkEmailMoveStamp** property ([MS-OXCSPAM] section 2.2.1.2) MUST be set on all RSS objects.

2.2.2.2 PidTagMessageClass Property

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

The **PidTagMessageClass** ([MS-OXCMSG] section 2.2.1.3) property specifies the type of the Message object. The value MUST be "IPM.Post.RSS" or begin with "IPM.Post.RSS.".

2.2.2.3 PidTagSenderName Property

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

The **PidTagSenderName** property ([MS-OXOMSG] section 2.2.1.51) contains origination information about the RSS object.

This property is set as follows:

- For an RSS item, this property is set to the value of the **author** or **title** element.
- For an atom entry, this property is set to the value of the **title** element or to the value of the **name** child element of the **author** element.
- If none of the specified elements exist in the RSS item or the atom entry, this property is set to an empty string.

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2.2.2.4 PidTagSenderEmailAddress Property

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

The **PidTagSenderEmailAddress** property ([MS-OXOMSG] section 2.2.1.49) contains the value of the **email** child element of the **author** element of an atom entry. If the **email** element is not present, this property is set to an empty string. This property does not apply to an RSS item.

2.2.2.5 PidTagSentRepresentingName Property

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

The **PidTagSentRepresentingName** property ([MS-OXOMSG] section 2.2.1.57) contains origination information about the RSS object.

This property is set as follows:

- For an RSS item, this property is set to the value of the **author** or **title** element.
- For an atom entry, this property is set either to the value of the **title** element or to the value of the **name** child element of the **author** element.
- If none of the specified elements exist in the RSS item or the atom entry, this property is set to an empty string.

2.2.2.6 PidTagSentRepresentingEmailAddress Property

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

The **PidTagSentRepresentingEmailAddress** property ([MS-OXOMSG] section 2.2.1.55) contains the contents of the **email** child element of the **author** element of an atom entry. If the **email** element is not present, this property is set to an empty string. This property does not apply to an RSS item.

2.2.3 Additional Object Constraints

Additional constraints beyond those specified in [MS-OXCMSG], [MS-OXOMSG], and [MS-OXCSPAM] are specified in section 2.2.3.1 through section 2.2.3.2.

2.2.3.1 Attachment Objects

2.2.3.1.1 Full Article Attachment Objects

A full article **Attachment object** contains the contents of the linked document. Its **PidTagAttachMethod** property ([MS-OXCMSG] section 2.2.2.9) MUST be set to 0x00000001 (afByValue). The **PidLidPostRssItemLink** property (section 2.2.1.2) MUST be set to the URL from which the document was downloaded.

An RSS object MUST NOT have more than one full article Attachment object.

2.2.3.1.2 Enclosure Attachment Objects

An enclosure Attachment object contains the contents of an **enclosure**. For an atom entry, the enclosure is a file referenced in the **href** attribute of a **link** element that has its **rel** attribute set to "enclosure". For an RSS item, the enclosure is a file referenced in the **enclosure** element.

An enclosure Attachment object MUST have the **PidTagAttachMethod** property ([MS-OXCMSG] section 2.2.2.9) set to 0x00000001 (afByValue). The **PidLidPostRssItemLink** property (section 2.2.1.2) MUST be set to the URL from which the enclosure was downloaded.

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2.2.3.1.3 Other Attachment Objects

An RSS object MUST NOT have Attachment objects other than full article Attachment objects and enclosure Attachment objects.

2.2.3.2 Recipients

An RSS object MUST NOT have **recipients**.

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3 Protocol Details

3.1 Client Details

The client creates and manipulates an RSS 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.

This protocol uses the abstract data model that is specified in [MS-OXCMSG] section 3.1.1 with the following adaptations:

- The RSS object is an extension of the Message object.
- An RSS object is created in a **Folder object** that has a container class of "IPF.Note.OutlookHomepage" unless the **Mail User Agent (MUA)** explicitly specifies otherwise.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Higher-Layer Triggered Events

3.1.4.1 Creation of an RSS Object

When the user subscribes to a news feed, the client creates an RSS object by creating a Message object, as specified in [MS-OXCMSG], sets properties on the RSS object in accordance with the requirements in section 2.2, and saves the resulting RSS object as specified in [MS-OXCMSG]. In particular, the **PidNameExchangeJunkEmailMoveStamp** property (section 2.2.2.1) MUST be set before the RSS object is saved the first time.

3.1.4.2 Modification of an RSS Object

When the user updates a subscription to a news feed, the client first opens the RSS object in the same way that it opens any Message object, as specified in [MS-OXCMSG]. The client then modifies any properties in accordance with the requirements in section 2.2 and saves the RSS object as specified in [MS-OXCMSG].

3.1.4.3 Deletion of an RSS Object

When the user deletes a subscription to a news feed, the client deletes the RSS object in the same way that it deletes any Message object, as specified in [MS-OXCFOLD].

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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 RSS 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-OXCMSG] section 3.2.1 with the following adaptations:

- The RSS object is an extension of the Message object.
- An RSS object is created in a Folder object that has a container class of "IPF.Note.OutlookHomepage" unless the MUA explicitly specifies otherwise.

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].

3.2.6 Timer Events

None.

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3.2.7 Other Local Events

None.

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4 Protocol Examples

A user subscribes to an RSS feed. The client polls the feed and finds a new item. The following is a description of what a client might do to accomplish the user's intentions and describes the responses a server might return. For information about the **remote operations (ROPs)** described in the example, see [MS-OXCPRPT] and [MS-OXCMSG].

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

Property	Property set GUID	LID or property name
PidLidPostRssChannel (section 2.2.1.5)	{00062041-0000-0000-C000-000000000046}	0x00008904
PidLidPostRssChannelLink (section 2.2.1.1)	{00062041-0000-0000-C000-000000000046}	0x00008900
PidLidPostRssItemGuid (section 2.2.1.4)	{00062041-0000-0000-C000-000000000046}	0x00008903
PidLidPostRssItemHash (section 2.2.1.3)	{00062041-0000-0000-C000-000000000046}	0x00008902
PidLidPostRssItemLink (section 2.2.1.2)	{00062041-0000-0000-C000-000000000046}	0x00008901
PidLidPostRssItemXml (section 2.2.1.6)	{00062041-0000-0000-C000-000000000046}	0x00008905
PidLidPostRssSubscription (section 2.2.1.7)	{00062041-0000-0000-C000-000000000046}	0x00008906
PidLidSideEffects ([MS-OXCMSG] section 2.2.1.16)	{00062008-0000-0000-C000-000000000046}	0x00008510
PidNameExchangeJunkEmailMoveStamp ([MS-OXCSPAM] section	{00020329-0000-0000-	HTTP://schemas.microsoft.com/exchange/junkemailmovestamp

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Property	Property set GUID	LID or property name
2.2.1.2)	C000-00000000046}	

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

Property	Property ID
PidLidPostRssChannel	0x8318
PidLidPostRssChannelLink	0x8314
PidLidPostRssItemGuid	0x8317
PidLidPostRssItemHash	0x8316
PidLidPostRssItemLink	0x8315
PidLidPostRssItemXml	0x8319
PidLidPostRssSubscription	0x831A
PidLidSideEffects	0x81F8
PidNameExchangeJunkEmailMoveStamp	0x8415

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

After processing the contents of the RSS item, the client transmits the properties to the server by using the **RopSetProperties** ROP ([MS-OXCROPS] section 2.2.8.6). The properties that are set are shown in the following table.

Property	Property ID	Data type	Value
PidLidPostRssChannel	0x8318	0x001F (**PtypString** ([MS-OXCDATA] section 2.11.1))	Help and How-To for Contoso
PidLidPostRssChannelLink	0x8314	0x001F	HTTP://www.contoso.com
PidLidPostRssItemGuid	0x8317	0x001F	HTTP://www.contoso.com
PidLidPostRssItemHash	0x8316	0x0003 (**PtypInteger32** ([MS-OXCDATA] section 2.11.1))	0xCD0E93CF
PidLidPostRssItemLink	0x8315	0x001F	HTTP://www.contoso.com
PidLidPostRssItemXml	0x8319	0x001F	(See note 1 following the table.)
PidLidPostRssSubscription	0x831a	0x001F	Help and How-To for Contoso

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Property	Property ID	Data type	Value
PidLidSideEffects	0x81f8	0x0003	0x00000100
PidTagHtml ([MS-OXCMSG] section 2.2.1.56.9)	0x1013	0x0102 (**PtypBinary** ([MS-OXCDATA] section 2.11.1))	(See note 2 following the table.)
PidTagClientSubmitTime ([MS-OXOMSG] section 2.2.3.11)	0x0039	0x0040 (**PtypTime** ([MS-OXCDATA] section 2.11.1))	High: 0x01C87A36 Low: 0xD74C8CC0 (2008/02/28 18:22:13.900)
PidTagConversationTopic ([MS-OXOMSG] section 2.2.1.5)	0x0070	0x001F	Learn to narrow your search criteria for better searches in Contoso
PidTagInternetCodepage ([MS-OXCMSG] section 2.2.1.56.6)	0x3FDE	0x0003	0x0000FDE9
PidTagMessageClass ([MS-OXCMSG] section 2.2.1.3)	0x001A	0x001F	"IPM.Post.RSS"
PidTagMessageFlags ([MS-OXCMSG] section 2.2.1.6)	0x0E07	0x0003	Flags: 0x00000000 <none>
PidTagNormalizedSubject ([MS-OXCMSG] section 2.2.1.10)	0x0E1D	0x001F	Learn to narrow your search criteria for better searches in Contoso
PidTagSenderName (section 2.2.2.3)	0x0C1A	0x001F	Help and How-To for Contoso
PidTagSentRepresentingName (section 2.2.2.5)	0x0042	0x001F	Help and How-To for Contoso
PidTagSubjectPrefix ([MS-OXCMSG] section 2.2.1.9)	0x003D	0x001F	(null)
PidNameExchangeJunkEmailMoveStamp	0x8415	0x0003	0x802454D1

When the client has made all its changes to the item, it commits the properties to the server by using the **RopSaveChangesMessage** ROP ([MS-OXCROPS] section 2.2.6.3) and then releases the RSS object by using the **RopRelease** ROP ([MS-OXCROPS] section 2.2.15.3). The values of some properties will change during the processing of the **RopSaveChangesMessage** ROP, but the properties specified in this document will not change.

Note 1: The **PidLidPostRssItemXml** property contains the following text.

```
<?xml version="1.0"?>
<item>
<title>Learn to narrow your search criteria for better searches in Contoso</title>
<description>Instant Search can help you find information in a flash.</description>
<link>http://www.contoso.com</link>
</item>
```

Note 2: The **PidTagHtml** property contains the following text, encoded into binary as described in [MS-OXBBODY].

```
<html>
```


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```
        <body>
            <table>
                <tr>
                <td>Instant Search can help you find information in a flash.</td>
                </tr>
            </table>
            <p><BR/><A HREF="http://www.contoso.com">View article...</A></p>
        </body>
    </html>
```


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5 Security

5.1 Security Considerations for Implementers

There are no special security considerations specific to this protocol. General security considerations that pertain to the underlying transport apply as described in [MS-OXCMSG].

5.2 Index of Security Parameters

None.

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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 Exchange Server 2016
- Microsoft Office Outlook 2003
- Microsoft Office Outlook 2007
- Microsoft Outlook 2010
- Microsoft Outlook 2013
- Microsoft Outlook 2016

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.

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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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